

11 June 2020

Planning
Strategic Development Directorate
Manchester City Council
P O Box 532
Manchester
M60 2LA

Dear Sir or Madam

Application reference: 126431/FO/2020 - Erection of a multi-use arena with ancillary retail/commercial uses in Eastlands (“Application”)
Applicant: OVG Manchester Limited (“OVG”)

This letter and the reports which accompany it comprise ASM Global’s representations in response to the Application. ASM Global and their team of technical specialists have undertaken detailed analysis of the Application submission documentation to inform their response. In addition to this letter, our representation includes the following;

1. Planning objection, prepared by P4 Planning with input from Grant Thornton (the latter report was prepared in response to the 2019 Eastlands Regeneration Framework 2019 Update)
2. An independent Economic Analysis of Manchester Arena Market, prepared by Charles Rivers Associates
3. An independent Eastlands Transport Review, prepared by Blacc and Mott MacDonald, with input from Air Quality Consultants and Movement Strategies.

The submission reports and the associated appendices should be read fully and in conjunction with one another. A summary of ASM Global’s objection case is included at the front of the planning objection (document 1 above).

ASM Global & Manchester Arena

ASM Global is an international venue and event management business, and is the tenant and operator of Manchester Arena. ASM Global’s portfolio includes over 300 of the world’s foremost venues across five continents, which serve host to thousands of concerts, a huge range of live entertainment events, prestigious sporting events, conferences, conventions and exhibitions.

Manchester Arena is an essential part of the fabric of Manchester city centre. Its city-centre location, proximity to transport connections, large capacity and flexible space have, for 25 years, attracted the

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biggest names in live entertainment to Manchester, in turn driving large numbers of visitors to the city centre whose consumer spend supports city-centre businesses and jobs.

Application predicated on flawed economic analysis

OVG's Application confidently asserts there is demand for two 20,000+ capacity arenas in Manchester, but that assertion simply isn't supported by market data.

In order to construct an argument that there is a market for a second arena, OVG forecasts in its Application, growth of circa 150% by 2035 (more than double the existing market). Neither ASM Global (the world's largest event and venue management company), nor its independent economic consultant can discern any credible basis for this projected growth.

The data source used by OVG in fact shows relatively flat growth over the past ten years, and forecasts based on past trends would result in market growth of 5% over the next 15 years, not 150% as inexplicably predicted by OVG. Relatively flat growth was also forecast by event promoters interviewed on behalf of Grant Thornton in 2019. One promoter predicted (before the impact of COVID-19 was considered) that there "*might be some growth maybe 1-2%*" and another noted "*there is talk of a new stadium in Manchester near the Etihad. Not convinced there is enough content in Manchester to flourish*".

Even if the overly aggressive and unsubstantiated growth projections forecast by OVG were achievable, independent analysis shows it is still not enough to support two 20,000+ capacity arenas in Manchester. Granting the Application in circumstances where there is no market for two similar venues would mean that the Manchester Arena and the new arena would have to compete for events, which will inevitably result in an unsustainable loss of events for Manchester Arena. This would cause irreparable harm to Manchester Arena's long term viability and mean it would not be able to proceed with its transformational redevelopment plans, detailed below.

Independent analysis by Grant Thornton also demonstrates that Manchester Arena and its visitors support over 2,000 jobs in Manchester and approximately £60m in GVA contributions to GDP, and attracts an estimated gross visitor spend of £120m within Greater Manchester (90% of which is to the city centre). The harm expected to be caused to the Manchester Arena as a consequence of the proposed development would also extend to city centre bars, restaurants and shops which rely on footfall generated by events at Manchester Arena.

Planned multi-million-pound investment in Manchester Arena

As you are aware from pre-planning application discussions, ASM Global is at an advanced stage of planning a transformative, multi-million-pound investment to modernise and increase the capacity of the Manchester Arena. We are grateful for the support shown by Manchester City Council to date in response to these plans; however, the approval of OVG's Application would place ASM Global's planned investment, and the continued survival of Manchester Arena, at substantial risk. In the event planning permission is granted and implemented, ASM Global would not be able to make its planned investment, or indeed continued investment in the Manchester Arena, because there would no longer be any viable business case to support it.

The National Planning Policy Framework is clear that planning decisions must support the vitality and viability of town and city centres, and any out of centre development should not be granted planning permission where it would have a significant adverse impact on planned investment in the city centre.

Impacts on Manchester city centre

The risk of damage to Manchester city centre is amplified by OVG's proposal to include over 17,000m² of ancillary retail / commercial space. In an attempt to alleviate some of the problems associated with a lack of public transport options insufficient parking provision, and significant traffic congestion around the

IMAGINE THE EXPERIENCE



proposed site, customers are encouraged to arrive over a three hour period and leave over the course of an hour. This would have a direct adverse impact on the city centre by driving consumer spend away from its bars, restaurants, cafes, and shops for an extended period of time.

Manchester city centre requires support to recover after COVID-19

Like many city-centre businesses, Manchester Arena is currently closed because of the restrictions in place to control the COVID-19 pandemic. Sadly, it seems inevitable that those restrictions, and challenges city-centre businesses will face as lockdown eases, will cause untold harm to the entertainment, hospitality and retail businesses in Manchester city centre.

Manchester Arena believes that it has a significant role to play in attracting visitors back to the city centre as Manchester emerges from this crisis and sees it as essential that, in these extraordinary times, the vital city-centre economy receives the support of Manchester City Council to limit the potential for devastating damage.

Withdrawal of the Eastlands Regeneration Framework (“ERF”)

You will note we have included copies of the exchange of correspondence in relation to the cancellation of the decision to adopt the ERF as an annex to our representations (document 1). In the interest of transparency, it is our intention to publish our representations and annexes on our website but we are mindful that Manchester City Council may first wish to express a view on the publication of the exchange of correspondence relating to legal action. If that is the case, we invite the Council to notify us of its view, and the reasons for it, within 7 days of the date of this letter so that we may consider the position, whilst reserving ASM Global’s rights fully.

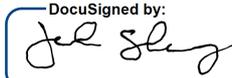
Conclusion

We trust Manchester City Council will give due and proper consideration to the important points raised in ASM Global’s representations on the Application. If any clarification is required, please contact ASM Global’s Legal Counsel, Freyja Handy (Freyja.Handy@eu.asmglobal.com).

ASM Global respectfully requests that Manchester City Council refuses planning permission for the OVG scheme for the reasons set out in its representations.

ASM Global fully reserves its right to make any further representations it considers necessary or appropriate.

Yours faithfully

DocuSigned by:

John Sharkey

Executive Vice President, ASM Global (European Region)

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Proposed OVG Arena at Eastlands

Application 126431/FO/2020

Objection on behalf of ASM Global

11 June 2020

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1. Summary

- 1.1. ASM Global (ASM) operates Manchester Arena (MA) and, in its 25th year, is proposing a significant investment of up to £100m to modernise, increase capacity, improve and transform its venue adding even more flexibility to attract an even broader range of events and offer a truly world-class customer experience in the heart of the city centre as part of the Victoria Station complex - a major public transport hub.
- 1.2. In 2019 Grant Thornton UK LLP estimated that the net economic impact from MA, in terms of its operation and the visitor spend it attracts, supports over 2,000 jobs in Manchester and contributes approximately £60m in gross added value to GDP (90% of which is to the city centre).
- 1.3. The OVG proposal is for a large new out-of-centre arena that is of direct comparable scale and catchment. It will therefore compete with the MA for events and inevitably draw trade away from the city centre with consequential adverse economic impacts on the existing arena (and its planned investment), other city venues and wider city centre vitality - particularly the evening economy.

Impact assessment

- 1.4. An arena is a 'main town centre use' and the applicant therefore has to identify the market demand for such a facility, undertake a sequential test of alternative sites and assess the *impact* of the proposal on existing, committed *and planned* investment in the centre, and the *impact* on vitality and viability.
- 1.5. Manchester City Council's scoping report required that these impacts be '*robustly assessed*' in the Environmental Impact Assessment (EIA). Such an assessment has not been undertaken. Consequently, the EIA is seriously deficient.
- 1.6. The submitted application includes an analysis of 'market demand' but this greatly overstates future market growth in a way that has demonstrable, significant and fundamental flaws. It is selective with its projections and overly relies on substantial growth from niche elements of the market, which greatly inflate the figures and are therefore misleading. It ignores the flat growth in music events.
- 1.7. It forecasts that the market will more than *double in size* by 2035, growing up to 150%, which OVG say will provide the attendance level necessary to support a second arena *without consequential trade draw* from the city centre and therefore only *positive* economic benefits.
- 1.8. However, OVG's projections are devoid of a credible evidential basis. Past growth has in fact been comparatively flat overall (0.3% growth per year on average over 2014-2018) and projecting forward on this basis results in only 5% overall market growth by 2035 (as opposed to up to 150%), which plainly would not support two arenas.

- 1.9. Analysis undertaken for ASM finds that even the overly optimistic OVG forecasts would not be sufficient to generate a commercial return for the proposed arena and the market will therefore need to be shared between the existing offer in the city centre and the proposed out-of-centre development, with associated detrimental impacts to the city centre.
- 1.10. OVG's forecasts were also prepared before any account could be taken of the Covid 19 pandemic, which has already had a major impact on an already challenging city centre retail and leisure economy. In reality, the market in the short term at least, is likely to *contract* and not grow at all.
- 1.11. Covid 19 has triggered a sharp recession and the effect of growing unemployment will inevitably lead to further reductions in expenditure as a result of falling disposable income.
- 1.12. The applicant, however, claims that its projected growth '*demands*' that Manchester should accommodate a second large arena based on its overstated market growth forecast. For this reason, its analysis of impact on the city centre is flawed as it is wrongly predicated on the proposition that all impacts will be positive.
- 1.13. As a result of these fundamental flaws in the market demand analysis, there is no '*robust assessment*' as required by MCC in its EIA scoping report.

Sequential approach

- 1.14. Paragraph 87 of the National Planning Policy Framework (NPPF) requires applicants to demonstrate a flexible approach on issues such as format and scale when undertaking the sequential test for main town centre uses, the purpose being to ensure that town centre or edge of centre sites are fully explored.
- 1.15. The Applicant's so-called "sequential assessment" failed to consider the extent to which existing venues in the city centre (including MA) can accommodate growth in market demand in more sequentially suitable, available and accessible alternative locations.
- 1.16. Nor is there any assessment of the very substantial retail/commercial element of the proposal which comprises 17,451m² - approximately *seven times* larger than the 2,500m² trigger point set in adopted policy for undertaking such an assessment.
- 1.17. OVG claims that MA is operating at 95% capacity utilisation, but this is wholly incorrect and misleading as venue occupancy at MA is in fact only 42%, with 58% of days currently available.
- 1.18. OVG claims that MA misses out on events because it is inflexible, but this is plainly also untrue as it already hosts a wide range of events of all types and configurations and is listed as one of the most successful venues in the world, surpassing venues in cities with much larger populations.
- 1.19. MA could readily accommodate additional growth in its current form and even more so through the planned investment by ASM which, by 2023, will introduce increased capacity and even

greater flexibility of format to better attract an even wider range of events including niche markets with growth potential as identified by OVG (such as e-sports).

- 1.20. Market growth could also be accommodated within other existing and planned city centre venues, including The Factory, which is not yet open and has relied on significant Arts Council England and MCC funding.
- 1.21. These planned investments will help ensure that future market growth can be accommodated and spend retained *in the city centre*, a preferable and far more accessible location, with a robust and proven public transport network expected of a city centre location.
- 1.22. Blacc Transport identifies through accessibility mapping that the existing MA is twice as accessible by public transport to the population of Greater Manchester than the proposed OVG site. MA and other city centre venues are therefore in a far more sustainable location than Eastlands.
- 1.23. ASM's planned investment will continue to support MA's critical role at the heart of Manchester's community in the most sustainable location, which will continue to help underpin the city centre evening leisure and wider retail economy, in full accordance with national and local planning policy.
- 1.24. This significant planned investment is especially important and will provide much needed support for the city centre leisure market and night-time economy in the challenging months and years ahead as we recover from the devastating impact of Covid 19.
- 1.25. The National Planning Policy Framework (NPPF paragraph 89) is clear that, where an application fails to satisfy the sequential test or is likely to have significant adverse impact on existing, committed and planned public and private investment in a centre or centres in the catchment area of the proposal, it should be refused.
- 1.26. All credible evidence demonstrates that market growth will be far lower than OVG predicts, and consequently two large arenas of the same size and configuration, serving the same catchment, will not be able to viably operate. Manchester is already better served by entertainment venues compared to all other markets throughout the UK, and a second arena at Eastlands will simply take trade away from the city centre, conflicting with national and statutory development plan policies.
- 1.27. ASM therefore objects on this basis and for the reasons amplified in this submission, which provides additional commentary on:
 - The context of our submission given previous comments submitted to the 2019 Eastlands Regeneration Framework Update in June 2019 and the planned private investment in the city centre which is at risk

- The approach to considering major out-of-centre development and commentary on the OVG submission relating to market demand, sequential approach and impact
- The extent to which the proposal is non-compliant with the statutory development plan and the weight that should be given to relevant policies and other material considerations
- The extent to which the development will be accessible by public transport, the potential implications for parking, walking, safety, and the reliance on private car trips
- The extent of Green House Gas (GHG) emissions arising from private car trips to the new arena and implication for climate change commitments.

2. Manchester Arena at the Heart of the City Centre

ASM Global

- 2.1. This objection is submitted on behalf of ASM Global (the trading name of SMG Europe Holdings Limited following a merger between SMG and AEG Facilities in October 2019).
- 2.2. ASM has an unparalleled depth and range of venue management capabilities. ASM owns, operates and consults with more than 300 of the world's pre-eminent venues across five continents, providing complete venue management services including design development, event programming, operations, guest services, ticketing, food & beverage services, content development, sales and marketing.
- 2.3. ASM-managed venues play host to thousands of concerts and events worldwide every year. Their venues host some of the world's premier conventions, exhibitions, conferences, and sports events, including the Super Bowl, World Cup Soccer, Winter Olympics and Commonwealth Games.
- 2.4. ASM's portfolio, which comprises 25 stadiums, 92 convention centres, 116 arenas and 78 theatres/specific use venues, accounts for:
 - **160m** guests hosted annually
 - **311** venues under management
 - **23m** square feet of exhibition space
 - **2.7m** entertainment seats under management

Manchester Arena

- 2.5. MA is an integral part of the city centre's commercial offering. It has successfully served Manchester and the wider region since its opening in 1995, welcoming over 30 million visitors in that time, and an average of 1.2 million customers per year. It is the UK's largest dedicated music and live entertainment venue and Pollstar / Venues Now recently ranked it the world's 2nd most successful arena of the decade (15,000-30,000 capacity) behind the O2 Arena (London) and ahead of Madison Square Garden (New York). It is regularly ranked in the top five in comparative global ratings.
- 2.6. Celebrating its twenty-fifth year, visitors continue to be attracted to MA by:
 - a) the prestigious nature of its events offering: MA has hosted, and continues to attract, the biggest names in the live entertainment industry

- b) the range of its events offering: MA is a multi-purpose venue which can host a wide range of events including concerts, sporting events, comedy, family shows and much more (further details below)
 - c) the ease of MA's unsurpassed accessibility, thanks to its city-centre location which forms part of the Victoria Station complex and transport hub, amongst other public transport options
- 2.7. MA is one of only a small handful of venues nationwide to have achieved the highest "Gold" status under the charter scheme operated by the charity 'Attitude is Everything', which champions best practice accessibility for deaf and people with disabilities to live music in the UK.
- 2.8. The attractive force of MA drives visitors to the city centre, supporting city-centre businesses, and creating significant employment opportunities, both directly and indirectly through the visitor-related spend it attracts to Manchester city centre.

The existing offer

- 2.9. MA offers event promoters and visitors an indoor arena with a large capacity and the flexibility to host multiple event formats from fully in-the-round experiences to a variety of end-stage layouts (see **Appendix 1**).
- 2.10. The flexibility of the MA's space is demonstrated by the enormous range of events it has hosted in its 25-year history. In addition to its thousands of concerts, the arena has hosted world-class events including:
- sporting events including Commonwealth Games; boxing, including numerous world-title fights; international netball; Masters Football; ice hockey; basketball, including NBA / WNBA, the US Dream Team and National League; skateboarding; Taekwondo World Championships; FINA swimming world championships (which required two x 2-metre-deep swimming pools); badminton; UFC; darts; Cross Fit; UK school games; big screen sports and more
 - family events including Cirque du Soleil; Disney on Ice; Marvel Live; Walking with Dinosaurs; Bob the Builder; Tweenies; Barney; Cbeebies; and the world premiere of Batman Live, which included additional related events such as the after show dinner at Manchester Cathedral
 - vehicle events including tank displays; monster trucks; Nitro Circus; Super Bikes and motocross
 - awards dinners, shows and fund raisers, including BBC's Children in Need; MEN Awards; TOTP Awards; and Manchester United's Treble Winning Home Coming
 - comedy shows

- celebrity events including Bear Grylls; Brian Cox; Ant Middleton; Sylvester Stallone; and A Question of Sport
- E-sports
- opening ceremonies
- all night dance events
- horse shows (Lipizzaner Stallions)
- religious events
- product launches
- filming of music videos, TV dramas & commercials
- live streaming of concerts and the largest ever live streaming on YouTube when the MA hosted the KSI vs Logan Paul boxing event.

2.11. Many of the prestigious sporting events which MA has hosted have been staged working in conjunction with MCC.

2.12. ASM has announced plans to enhance further the capacity of MA, increase its floor space, transform its exterior and update its facilities which are explained below.

2.13. MA's city-centre location ensures it benefits from access to a diverse and attractive range of nearby venues and event spaces, providing promoters with a wide range of options for event wrap-around facilities. MA works with promoters and city-centre venues to arrange events linked to shows at MA, offering promoters diversity and underscoring MA's credentials in supporting local businesses.

Unrivalled accessibility via public transport

2.14. MA is extremely well connected by public transport to all of Greater Manchester, the North of England and beyond. It is adjacent to Manchester Victoria station, benefiting from its connections via Metrolink (Manchester Victoria is the main hub in the Metrolink network) and National Rail services.

2.15. It is also within a 10-minute walk of the city centre's two primary bus stations at Shudehill and Piccadilly Gardens, providing easy accessibility to the whole of Greater Manchester day and night.

2.16. MA's central location and proximity to public transport serve as significant boosts to its sustainability credentials. Nearly half of its visitors arrive by public transport. This contrasts with the comparatively inaccessible location of the proposed new arena in OVG's application.

Supporting the city centre economy and employment

- 2.17. MA plays a vital role in supporting the economy of Manchester city centre, particularly the evening economy and the many restaurants, bars and hotels in the immediate vicinity of the Arena, as well as the city centre's shops and cultural attractions.
- 2.18. It is for this reason that it enjoys strong policy support and protection from the development plan and national planning policy as contained in the NPPF.
- 2.19. Last year, ASM commissioned an independent analysis of the economic impact of MA to Manchester and the Greater Manchester area, undertaken by Grant Thornton UK LLP (see **Appendix 2**). This found that MA contributes significantly to the economy of the city centre. MA's economic footprint comprises operational and tourism impacts, made up of:
- a) its day-to-day spend running MA and ASM's European headquarters (located at offices adjacent to MA)
 - b) its supply-chain spend, which in 2018 amounted to circa £18m, over half of which was concentrated within Greater Manchester
 - c) wider economic benefits that arise when employees of ASM and its supply chain spend their wages within the Manchester consumer economy
 - d) visitor-related spend which MA attracts to the city centre
- 2.20. Grant Thornton's analysis demonstrated that in 2018, MA had the following key economic impacts:

Operational impacts

- The presence of ASM's headquarters and the day-to-day operations of MA sustained 730 direct jobs in the local economy, generating £4.3m in direct earnings and £12.7m in direct GVA contributions to GDP
- Taking account of supply chain spending and consumer impacts, the report estimated that MA supported a total of 890 jobs, £8.1m in wages and £22.9m in GVA contributions to GDP within Greater Manchester

Tourism impacts

- MA attracted a gross visitor spend estimated at £120m within Greater Manchester
- Of that visitor spend, over 90% occurred within Manchester city centre
- Visitor spend sustained circa 1,120 jobs throughout Greater Manchester, £19.5m in earnings and £33m GVA contribution to GDP

Total net economic impacts

- The operation of MA and the net visitor spend it attracts to the wider economy supported an estimated 2,010 jobs
- The estimated benefit from that level of employment was enough to sustain £27.6m in wages and a £55.9m gross-value-added contribution to GDP

- 2.21. MA therefore plays a key role in contributing to the success of the city centre economy. It has been a catalyst for investment, in particular the Printworks, Corn Exchange and nearby hotels, which, along with hotel operators and retail outlets nearby (including Selfridges) report a significant increase in footfall, average sales and bookings on event days compared to non-event days.
- 2.22. The temporary closure of MA caused by the terrorist attack on 22 May 2017 had a direct and detrimental impact on city-centre businesses and attendance at cultural and other visitor attractions in the city. We understand that the subsequent period when MA was closed nearly put some neighbouring businesses and suppliers out of business, such is their reliance on the footfall from events at MA.

ASM planned investment

- 2.23. ASM is at an advanced stage of planning an ambitious and transformative redevelopment of MA.
- 2.24. MA operates within a highly competitive market. ASM's lease of MA is set to run for at least another 25 years. To retain its position as a must-play venue and ensure MA is best placed to compete to attract event promoters to Manchester city centre for decades to come, ASM recognises the need to update and improve the current venue and its amenities.
- 2.25. Early discussions of the plans to redevelop MA took place with MCC in 2018. More recently, ASM met with MCC's planning officers on 19 May 2020 as part of pre-application consultation to discuss ASM's plans and seek input. That meeting will inform the design and proposed discussions with interested parties.
- 2.26. ASM has been able to progress its redevelopment proposals because of its strong relationship with its landlord (ownership of its landlord changed in 2018 when the Arena and Victoria Exchange Complex was acquired by Secure Income REIT, managed by, Prestbury Investment Partners Limited). ASM's new landlord is not only willing to facilitate a transformation of the Arena, but also has ambitious plans of its own for the wider campus. Prestbury met with MCC in March 2019 to discuss its plans to redevelop the Victoria Exchange which provides the opportunity to open up the campus around MA at a strategic point linking the surrounding uses in the Medieval Quarter, Greengate and Northern Gateway.
- 2.27. With the adjacent Chetham's School of Music; Manchester Music College (currently building its new site in close proximity to MA), and a wealth of historically significant music venues within

close proximity in the city centre (such as the legendary Band on the Wall), ASM hopes that the refurbished MA (which will include a Nordoff Robbins music therapy centre) will form an important part of a “Music Quarter” or “Music Mile” celebrating Manchester’s position as a preeminent destination for music and entertainment.

2.28. ASM has been working on its redevelopment plans since 2018 in part informed by feedback from local and national promoters - and its vision for the redevelopment was disclosed to the public in early March 2020. The plans will evolve in dialogue with MA’s users and neighbours, along with MCC (see extracts from pre-application presentation at **Appendix 3**) and other regional stakeholders but in summary, comprise:

- An increased capacity to circa 24,000 to make it the largest indoor arena in Europe and further enhancing the appeal to promoters of the existing city-centre arena
- Increasing standing capacity by 3,600 to 6,250 helping bring additional visitors, an uplift in ticket sales and offer a boost to city-centre businesses
- New VIP / premium experience with hospitality lounge on event floor level by the side of the stage to provide a hospitality experience unique to UK arenas
- Two new concourse levels to improve circulation and egress, improving visitor experience and to support increase to standing capacity with more food and beverage points of sale
- Remodelling hospitality suite level including dedicated VIP access, reimagined boxes and lounges to deliver a more diverse mix of experiences
- A Nordoff Robbins music therapy hub which will help those with autism, dementia and experiencing wider mental health conditions
- A more modern and engaging external aesthetic with a new façade which takes inspiration from Manchester’s iconic worker bee
- Improved access from Manchester Victoria’s train platforms, car park and from Trinity Way and the Northern Gateway
- A new arrival experience comprising a covered and immersive walkway and improved vertical circulation, LED and enhanced signage
- An improved egress onto Trinity Way to facilitate an increase in standing capacity and smoother exit for visitors

2.29. The investment will provide a focus on sustainability with use of solar energy and innovations to target increased recycling. Plant will be upgraded to minimise energy usage and the aim is to embed sustainability within the fabric of the MA ethos, seeking to transform the arena into one

of the lowest carbon venues in Europe whilst also supporting MCC's commitment to zero carbon by 2038.

- 2.30. One of ASM's principal shareholders is responsible for investment and development in the world's highest profile entertainment districts, including LA Live, the O2 London and Mercedes Platz Berlin. ASM has the skill, knowledge and experience to implement its ambitious redevelopment plans for the MA and believes that MA's location, history and track record as one of the world's most successful venues, provides a unique opportunity to create a transformative entertainment district.

Conclusion

- 2.31. Overall, ASM's planned investment for up to £100m will deliver a step change improvement in customer experience and will ensure that MA remains the pre-eminent large indoor arena venue for the city for the next 25 years.
- 2.32. ASM's proven track record of delivering high profile and innovative schemes is particularly important in view of the challenges facing the city centre's retail and hospitality market as a consequence of the COVID-19 pandemic. ASM is confident that it and its landlord's vision and investment could act as a transformational catalyst on the recovery of the city centre.
- 2.33. A planning application will be submitted later this summer and, subject to securing the necessary approvals, phased works could be completed by early 2023, with elements of the scheme completed much sooner. These plans are an important investment in the city centre which is now in significant jeopardy with this OVG application proposal.

3. Previous Concerns Raised

- 3.1. ASM first became aware of a proposed second arena through an article in the Manchester Evening News in November 2018.
- 3.2. The publication of the draft Eastlands Regeneration Framework Update (ERF Update) in April 2019 confirmed the emerging plans. This referred to ‘interest received from international investors’ and the ‘potential’ suitability of Eastlands to accommodate a new 20,000 capacity large indoor arena, without evidential support on the need for or potential impact of such a new venue on the city centre.
- 3.3. The draft ERF Update consultation was not widely publicised and, with no evidence to review, ASM (then SMG Europe) commissioned its own team to generally raise awareness and advise on the potential implications of a second large indoor arena.
- 3.4. During the short consultation period, the commissioned work was summarised into a formal representation to the draft ERF Update, setting out various concerns and *objecting* to the inclusion of references to an opportunity for a second arena in a document which would be given material weight in future planning decisions by the Council, yet had not been subjected to appropriate scrutiny.
- 3.5. ASM’s representation in June 2019 was not put on public record (although it does appear to have been seen by OVG, on the basis that it contained an assessment by Grant Thornton which is referenced in the OVG submission by PWC). The main points raised through the submission in June last year included:
 - i. MA helps to underpin the vitality and viability of the city centre and helps attract investment and regeneration to surrounding land and property assets.
 - ii. MA is a significant direct and indirect employer and its influence has a far wider reach through its broad supply chain and the businesses in the surrounding areas that have chosen to locate close by because of the trade it helps to bring.
 - iii. The planned investment in MA will future proof it for the next 25 years and increase connectivity between it and the expanding city core around Victoria Station, including developments at the former Boddington brewery, the Northern Gateway and at Greengate in Salford city core.
 - iv. The underlying supply analysis of the UK market does not support another large indoor arena to a Manchester market which is already the most saturated market in the UK, with other large arenas in northern cities nearby and alternative smaller locations within Manchester, including The Factory, the Apollo, and Mayfield Depot. There is no market case in terms of venue supply, capacity, audience demand or promoter need.

- v. A new out-of-centre arena would therefore compete directly for entertainment events with the MA. The number of events required for both arenas to survive is not supported by the market, so trade and spend will be drawn away from the city centre, impacting on its economic function.
- vi. There is a finite number of events which tour arenas of this scale and Manchester has three other large arenas within a 60-minute drive time at Leeds, Sheffield and Liverpool. Most other arenas in the UK have one or two within that distance.
- vii. With a second large arena in Manchester, the reality is that the finite number of events would be split between two venues rather than generating many additional events with a consequential reduction in footfall and associated economic benefits for the city centre.
- viii. With a finite market for arena shows and no market evidence to suggest Manchester being able to attract an additional 140+ events per annum, a new arena is likely to render the existing MA unviable, with major knock on implications for the future of the complex at Victoria Station, potential to frustrate development of nearby land and materially damage the city centre food, beverage, retail and hotel markets that the MA programming supports.
- ix. This would inevitably lead to job losses in the city centre, which would be a clear offset to any job creation at Eastlands, which is in a far less sustainable location.
- x. National and local adopted planning policy has long sought to protect the function of the city centre and ASM was concerned and surprised that MCC had not consulted with them or other city centre stakeholders about the ERF Update given the clear and obvious implications an out-of-centre second arena would have on the city centre.
- xi. ASM therefore expressed its concern that a second arena would place in jeopardy and raise significant uncertainty around the planned transformative investment in MA (and other planned investments in the city centre).
- xii. The representation set out that a non-statutory ERF is not the correct vehicle to bring forward proposals for major strategic development such as a large indoor arena which would require independent scrutiny, including objectively assessed need, more widespread consultation, and should be subject to Strategic Environmental Assessment.
- xiii. It expressed concern at the extent of the Council's consultation, which did not appear to meet MCC's own minimum standards as set out in the Statement of Community Involvement.
- xiv. The representation also set out concerns about the robustness of the transport infrastructure at Eastlands to cope with three to five arena events per week, given

inevitable clashes with commuter traffic leaving the city centre and with football fixtures at the adjacent stadium.

- xv. It flagged that this would draw inevitably on public resources (including policing) and lead to higher proportions of customers travelling by car with associated environmental impacts, such as impact on air quality and less combined trips and therefore less spin off spend in the city centre.
 - xvi. ASM reiterated that it has always been (and remains) supportive of regeneration at Eastlands which is *complementary* and *differentiates* from the offer in the city centre, as required by the ERF Update and previous iterations.
- 3.6. The outcome of the ERF Update consultation was reported to the MCC Executive on 24 July 2019 where the Executive delegated authority to the Strategic Director - Growth & Development, in consultation with the Leader of the Council and the Executive Member for Housing and Regeneration, to approve the ERF Update subject to final modifications, with the intention that it would become a material consideration in the Council's decision making as a local planning authority.
 - 3.7. The report to the Executive identified that there were over 1,400 objections to the draft ERF Update including substantive objections from important stakeholders in the city centre, many of whom expressed concern about likely impacts on the city centre. The report identified that these issues were for any future applicant to address however, for the reasons summarised in 1.4-1.13 above, the Applicant has failed to undertake any proper analysis of the impact of a second arena in Eastlands on the city centre.
 - 3.8. On 12 April 2020 ASM received a copy of the finalised ERF Update and was informed that it had been adopted by MCC as a Supplementary Planning Document, despite assurances having previously been given to the contrary, which triggered a legal process by ASM.
 - 3.9. MCC subsequently conceded that the ERF Update should *not have been adopted* and it has subsequently been withdrawn (see relevant correspondence at **Appendix 4**). It should therefore be given no material weight in the determination of the OVG planning application.
 - 3.10. ASM has consistently expressed its significant concerns about a second arena at Eastlands - and does so for good reason. City centre trading conditions were challenging before the impact of Covid 19. OVG's forecast market growth is overstated and not supported by credible evidence. As such, a second arena will compete directly with MA and there will be significant detrimental impact on the city centre vitality and viability as a result.
 - 3.11. This is not just the view of ASM. We are aware that other city centre stakeholders share ASM's concerns and intend to submit representations, objecting to the proposals and seeking to protect the vitality and viability of the city centre.

City centre trading conditions

- 3.12. The Manchester Business Improvement District represents a consortium of 400 city centre retail and restaurant brands. It was set up in 2013 and is managed by CityCo, the city centre management company. Its Board meets on a quarterly basis and the minutes provide a useful commentary on city centre trading conditions.
- 3.13. In July 2019, the performance summary (at paragraph 3.1) noted that *'Manchester's performance was challenging, reflecting the current difficult retail climate across the UK.'* It was further noted that *'many national retailers are entering into CVA procedures, including a number of businesses with flagship branches in the city centre'* and that *'economic conditions will continue to be very challenging going forward.'*
- 3.14. In September 2019, the performance summary (at paragraph 3.4) noted that *'footfall and trading continues to be challenging, reflecting the national position.'*
- 3.15. Concerns about the future of the high street are well documented and the subject of many national conferences and focus groups. The Government has set up the High Street Task Force, run by the Institute of Place Management which is undertaking the High Street UK 2020 Project. As a part of that project they have produced a report which identifies factors that influence vitality and viability. This provides useful and relevant background context about the changing nature of retail in the UK and comments that:
- 'UK town centres are experiencing a period of turbulent change. Whilst 49.4% of retail spending took place in town centres in 2000, this fell to 42.2% in 2011 and is forecast to be under 40% in 2014 (BIS, 2011). 15,000 shop units closed in UK town centres between 2000 and 2009 and a further 10,000 by 2011 (BIS, 2011). The Centre for Retail Research Forecasts that this trend will continue and a further 27,000 shops will close in town centres by 2018.'*
- 3.16. In July 2019 the Government announced the £3.6 billion Towns Fund and set up a High Street Task Force. At that time, Jake Berry, minister for the Northern Powerhouse, said *'every place has its own unique strengths and challenges but all our town centres and high streets have one thing in common, they are the lifeblood of communities.'*
- 3.17. The turbulent and challenging future of town and city centres is complex but is in part driven by increasing online retail spend and uncertainties, such as Brexit. In recent weeks and months however, the Covid 19 pandemic has also had a devastating effect, the outcome of which is still unknown but it is widely recognised that the pandemic has accelerated the trend for online retail which is expected to continue (ONS data shows online retail jumped to 30% in April <https://www.ons.gov.uk/businessindustryandtrade/retailindustry/timeseries/j4mc/drsi>).
- 3.18. CityCo provides useful city intelligence for Manchester city centre collected by Springboard UK, including monitoring weekly trends in sales and footfall.

- 3.19. The information identifies that retail sales through December and January were between 5% and 10% up on the previous year, but fell 10% below last year through February and dropped circa 40% in March, figures which are likely to deepen further in April and beyond, the longer the pandemic continues.
- 3.20. Unsurprisingly, footfall in the city centre follows the same pattern, with figures similar to last year through December and January before a dip of circa 10% in February then a devastating fall of 90% in March as the effects of Covid 19 bit.



(source CityCo - Springboard UK)

- 3.21. The proposed response plan to this economic crisis was set out in a report to the MCC Executive on 6 May 2020, where Members were advised (at paragraph 5.2) about the severity of the crisis and to *'plan for a recovery period of at least three to five years and to not expect the economy to bounce back rapidly in a V shape'* (emphasis added). Members were further advised that those who work in retail and hospitality are at particular risk.
- 3.22. Overall, the evidence confirms that trade in the city centre is challenging, reflective of the national position with other town and city centres. The recent Covid 19 pandemic has had a further devastating effect on the retail and leisure market which will be felt for years ahead.

- 3.23. This is highly relevant for the potential market forecast and likely impact of a second arena on the city centre, which will be in recovery mode for a long time, expected by MCC in its report to the May Executive, to be between three and five years.
- 3.24. It is therefore fundamentally important when determining this application for MCC to understand the likely *realistic effect* of a second arena on the city centre and take a reasoned and robust decision on this basis.

4. Proposed Arena will not provide a Distinct Offering

Arenas compared

- 4.1. As set out later in this submission, adopted policy clearly promotes the city centre as the focus for major retail and leisure development (policies CC1, CC4 and C1). The development plan needs to be read as a whole and, as such, policy EC7 relating to Eastlands in the Plan should be read compatibly with that objective, ie development proposals at Eastlands should not *'prejudice other policies within the plan'* and proposals should be *'complementary'* and should *'differentiate'* from the city centre offer.
- 4.2. We understand that OVG has recently (since submission of its application) shared a presentation to various corporate organisations in Manchester setting out its extended vision for Eastlands to become an entertainment *destination* with 200+ events at the proposed arena and Etihad Stadium, with the bold objective of the proposed arena attracting *2 million* visitors each year (see relevant extracts at **Appendix 5**) - this is in addition to the 1.2m that MA already achieves.
- 4.3. The proposed OVG arena is in fact very similar to MA as summarised in the table below, which identifies the key features of the proposed OVG arena alongside the existing MA and future MA, with its planned investment.

	MA (existing)	MA (with investment)	OVG proposal
Max capacity	20,490	24,136	23,500
Max standing capacity	3,600	6,250	10,000
Max seating capacity	18,311	19,121	20,500
Hospitality capacity	1464	1763	Circa 2350

- 4.4. There is no substantive difference in overall capacity or flexibility of configuration but, as set out below, OVG proposes a very significant retail, food and beverage content (17,451m² of use class A1, A3 and A4), which will inevitably draw trade away from city centre retail and restaurant venues (and not just immediately prior to or after events). Yet the impact of this element of their proposal has not been assessed as a part of the application.
- 4.5. A report prepared in support of OVG Manchester Limited's application for planning permission for a new large-capacity arena in Eastlands, by PWC, entitled 'OVG Manchester Due diligence report Volume 1: UK Arenas and Manchester market overview' identifies the following key features (on page 17), which are said seek to distinguish the proposed new arena from MA.

Each of those features is addressed below and, for the reasons addressed below, it is clear that statements made in support of those claims are untenable and untrue.

Flexibility of design

- 4.6. OVG claims its design is “flexible to maximise capacity”; and that MA’s large capacity is “theoretical” and “rarely achieved in practice owing to the reduced flexibility of the venue layout”, claiming both that “fewer than 50” (PWC page 5) and “less than 10%” of shows from 2014-2018 achieved greater than 15,000 attendees (PWC page 17). Not only is this incorrect, for the reasons below, it is also inconsistent with the equally incorrect position expressed in the PwC/Ekosgen reports that the MA is at capacity (addressed further below).
- 4.7. In reality, OVG’s proposed new arena will not offer a more flexible arena bowl. It is a 3-sided arena with a stage at one end. By contrast, MA offers the flexibility of a full, in-the-round experience whilst also offering a variety of different end-stage and seating layouts, adjusting capacity to suit promoters’ needs (see **Appendix 1**).
- 4.8. The flexibility of the MA’s space is demonstrated by the enormous range of events it has hosted as set out in Section 2 above.
- 4.9. PWC’s comment that less than 10% of events achieved greater than 15,000 attendees at the MA is incorrect (actual figure was 15% last year, which is below the O2 Arena but high compared to all other UK arenas). It is also wrong to assert that the proportion of events with greater than 15,000 attendees reflects “reduced flexibility of the venue layout”. The Economic Analysis of Manchester Arena Market undertaken by Charles River Associates (CRA) notes that lower demand in Manchester is a significant factor.
- 4.10. Put simply, the majority of events do not require the full capacity of a venue the size of MA but the inherent flexibility in MA’s space allows it to adapt to different show formats and sizes. Furthermore, and for the avoidance of doubt, MA has successfully hosted events with capacities of up to 19,500, for bands including Metallica, U2 and Muse.
- 4.11. The layout of the venue is decided by the needs of the artists and event promoters, based on demand, budgets and the logistics of touring shows. It is only the very biggest names in entertainment and sports which require the large formats which extend capacity beyond 15,000 attendees.
- 4.12. A key element of ASM’s redevelopment plans for MA is to increase its floor capacity, further enhancing the venue’s flexibility and options for promoters of, what is already, a hugely flexible space.
- 4.13. Accordingly, flexibility and capacity do not add anything new to the existing offering of MA.

Proximity to stage

- 4.14. OVG claims its proposed arena will offer seating in closer proximity to performers with improved sightlines.
- 4.15. MA already offers a large, modern venue with clear sightlines across its range of event formats. It has a pillar and handrail-free lower-tier design with a steep rake which provides visitors with excellent views.
- 4.16. The furthest available seat from the downstage edge of MA's standard end-stage set up is in fact 8.3m *closer* than the equivalent configuration at the proposed Eastlands arena, as measured from the submitted application plans.
- 4.17. ASM's plan to increase its floor capacity and introduce new hospitality elements will serve to bring greater numbers of attendees even closer to performers as a part of the planned investment.
- 4.18. Proximity and the views available to visitors do not therefore differentiate OVG's offering.

Food & beverage

- 4.19. OVG promises *"a food-court with a premium food offering"* and *"bars offering a variety of beers, wines and cocktails"*.
- 4.20. MA has plans to strengthen its food and beverage offering but the key contrasting factors to the OVG proposal are that (i) MA's city-centre location means it is surrounded by a vast array of restaurants and bars which benefit from (and rely to a significant degree on) the consumer spend of MA's visitors and (ii) MA does not propose to open its food and beverage areas when there are no events on at MA.
- 4.21. Notably, the scale of OVG's proposed offering, taking account of its plans for substantial associated retail and commercial space, clearly demonstrates a desire to draw trade away from Manchester city centre and the businesses which currently rely on MA.

Pre and post event experience

- 4.22. OVG claims its space will immerse visitors from arrival with *"pre-event entertainment"*, *"social media interaction"* and *"after-show spaces"*.
- 4.23. ASM's redevelopment plans provide for a new, more immersive experience for visitors to the MA from the point of arrival, via enhanced external spaces, and throughout the show when visitors will benefit from enhanced commercial offerings and more diverse VIP experiences.
- 4.24. In contrast to the proposed arena, MA's city-centre location provides visitors with a wealth of neighbouring food, beverage and entertainment options, pre-show, and post-show, which enhance the experience of visitors to MA. The investment proposed for MA will be a catalyst for

further investment in the City Centre as retail and food and beverage establishment “up their game”.

- 4.25. However, those city-centre businesses stand to suffer given OVG’s promises of pre-event entertainment and after-show spaces, viewed in the context of the associated retail and commercial space, which appear to be aimed at drawing trade away from the city centre.
- 4.26. The extent of retail and commercial offering in the OVG proposal does distinguish the proposed arena from MA, but its effect is likely to inflict serious damage to the city centre.

VIP offering

- 4.27. OVG promises a “*superior quality VIP offering*”.
- 4.28. ASM’s planned redevelopment investment will provide for a new and more diverse experience for VIP guests through a dedicated entrance, new suites and hospitality offerings including a stage-side lounge, building on the existing offer - so this does not distinguish OVG’s offering from MA either.

Transportation links

- 4.29. OVG highlights that the proposed arena benefits from “*direct access to the city centre via the Metrolink tram network, good connectivity to local motorways with a major international airport in close proximity and existing on-site parking facilities.*”
- 4.30. The reality is that OVG’s proposed arena cannot compete with the unrivalled access to multiple sustainable transport options on the doorstep of MA. Serious deficiencies in OVG’s transport assessment and mitigation strategy are identified by Blacc Transport and are summarised in Section 8 of this report.

Access to additional space / wider facilities

- 4.31. OVG claims that its location on the Etihad Campus, “*will allow additional space for any ‘wrap-around’ support required*”.
- 4.32. However, OVG’s plans do not include any ancillary event space (e.g. practice space for sports) placing it on the same footing as MA. OVG and MA could both utilise existing car parks to provide ancillary space, or they could use space available at adjacent facilities (provided arrangements can be made with relevant operators).
- 4.33. Although the Etihad campus provides the opportunity for access to excellent sporting facilities, MA’s city-centre locations gives it unparalleled access to a diverse range of venues and spaces to meet the needs of event promoters for wrap-around facilities.
- 4.34. MA has, for example, successfully arranged after-show parties at venues including Manchester Cathedral - only 100m away from the arena - and is in discussions with Manchester Music College over use of the atrium on the former Boddingtons site for pre and post-show events for

arena awards shows. There is also scope to use the Victoria Exchange campus to create integrated ancillary spaces as part of future development which is being considered by ASM's landlord.

- 4.35. The dynamism of MA's city-centre location and the options it provides is an attractive force for promoters, summed up by Ian Leafe, Tournament Director of the 2019 World Taekwondo Championships (held at MA) and Head of Events for GB Taekwondo who commented:

"Arenas around the world that the event has been held in the past have been out-of-town and the athletes are confined to the venue and athlete village. In Manchester, the city centre venue and therefore city centre hotels acting as the Athletes' village meant that the athletes could walk to the venue (keeping costs and traffic down) and the athletes experienced and interacted with the city centre."

Ian Leafe, Tournament Director, 2019 World Taekwondo Championships and Head of Events, GB Taekwondo.

- 4.36. It is also important to note that use of adjacent facilities will not assist OVG to bid successfully for large awards events (e.g. the Brits or Sports Personality of the Year), contrary to the expectations outlined in PWC's report, as such events invariably require integrated spaces.
- 4.37. Both arenas have access to venues and spaces which can provide wrap-around facilities - MA, though, benefits from its proximity to the city-centre's broader offering which, in turn, benefits from the trade MA directs to city-centre businesses.

Claims of limited availability

- 4.38. PWC claims *"The new arena will increase total capacity for events in the city which OVG believes is currently restricted due to limited availability..."* and claims that the reason for MA not securing a very limited number sporting events is *"often driven by scheduling restrictions"*.
- 4.39. ASM does not recognise scheduling restrictions as posing any genuine problem for securing events. Inevitably, with any venue, there is scope for preferred dates to clash with an existing booking. However, MA has significant unused capacity - it currently hosts events on only 42% of days where an event could, in principle, be hosted (as set out in part 4 of the CRA report).
- 4.40. Furthermore, 50% of events at MA are attended by crowds of 12,000 or less, reflecting that there is plenty of untapped venue seating capacity which, along with capacity in the venue scheduling, could be utilised to accommodate future market growth.
- 4.41. The reality is that MA has significant spare capacity and can accommodate more events. Capacity does not therefore distinguish OVG's proposal from MA's existing offering.

5. Impact of a Second Arena in Manchester

Manchester's entertainment market is already well served

- 5.1. MA operates in a highly competitive market. The North of England and the Midlands benefit from large-capacity indoor arenas in Liverpool, Leeds, Sheffield and two in Birmingham (with the same operator), which all face competition from the existing arenas in London.
- 5.2. The accompanying CRA report explains (in Part 4) that:
 - a) Manchester is better served than other UK cities - indeed, the average number of seats per capita is already *higher* in the Manchester catchment than for any neighbouring venues and even higher than that for the O2 in London; and
 - b) the available market is already saturated
- 5.3. The proposed OVG arena would have a geographic catchment which is broadly the same as MA and it will therefore compete in the market for broadly the same events.
- 5.4. Consideration of the market in Manchester should not ignore other smaller but significant venues which operate alongside MA and offer significant additional capacity and competition, including the Mayfield Depot (capacity 10,000), Factory (capacity 6,500) and O2 Apollo (capacity 3,500).
- 5.5. The competitive nature of the market must be considered in the context of the acknowledgment in PWC's report (page 7) that, *"In spite of event numbers remaining largely stable, Manchester's arena market share has been declining"*.
- 5.6. Grant Thornton UK LLP's report (**Appendix 2** page 3) comments that in the UK market, arena ticket sales have declined, not just because of the competition between arenas, but also because of competition from alternative events, such as festivals. Whilst, across a three-year average, MA outsold Birmingham's two arenas, that exposes the limitations of the market and that a second arena does not necessarily translate into a material increase in events or ticket sales.
- 5.7. PWC's report seriously diminishes the impact of large arenas in neighbouring cities, concluding that openings have led to market growth without a significant adverse effect on MA (page 47 of their report).
- 5.8. That conclusion does not reflect the reality of MA's experience. Whilst MA already had some competition from Sheffield when MA opened in 1995, the impact of new arenas opening in Liverpool and Leeds resulted in the loss of some events MA might previously have expected to host along with the loss of additional nights.
- 5.9. Some major artists do still continue to play multiple nights at MA due to its larger capacity and higher revenue potential, but many artists (particularly domestic tours) lower their risk and see

opportunities to gain new markets by spreading shows across the UK, whilst reducing travel times for fans. ASM’s own analysis shows that, within the last 12 years, 77% of artists that had previously exclusively played MA in the north, have replaced at least one MA performance with a show at either Liverpool or Leeds (indeed, of those artists, 57% played both Liverpool and Leeds). With new arenas being developed in Bristol, Cardiff and other cities, ASM expects certain acts to further expand the footprint of their tours.

- 5.10. Both CRA and Grant Thornton conclude that Manchester’s live entertainment market is already well served.

PWC / Ekosgen predictions of growth to support two arenas do not bear scrutiny

- 5.11. OVG’s application relies on predictions of market growth which CRA demonstrates are based on flawed assumptions and methodology and which are wholly unrealistic. CRA finds that:

- a) the current level of demand is insufficient to support two large indoor arenas in Manchester and dividing the market would mean that one or other venue would not be able to break even (taking no account of the need for OVG to see a return on its proposed £350m investment or, indeed, for MA to see a return on its proposed investment of up to £100m on its redevelopment, see part 1 of CRA report)
- b) a continuation of the historic attendance growth of 0.3% per year over the past 4 years (which is optimistic in the present Covid-19 context) would translate to a 5% increase in demand by 2035 - this contrasts very starkly with a greatly exaggerated expectation of up to 150% growth over the same period assumed by OVG’s consultants
- c) OVG’s use of Birmingham as an example of a city with two arenas which are said to demonstrate “supply-led” growth does not support that theory. Birmingham’s two arenas (total 2018 revenue £49m) do not generate materially higher revenues than MA (total 2018 revenue £46m), despite Birmingham’s two arenas having a 50% higher overall capacity. PWC acknowledge that a “step up would be required from what Birmingham currently delivers” but, for the reasons above, there is no data to support a reasonable expectation that such a step up is achievable in Manchester
- d) MA is not hindered by capacity constraints and has spare capacity both in terms of days to accommodate additional performances and to accommodate more visitors at the events it currently hosts (although the latter is subject to promotor requirements and anticipated demand)
- e) there is no credible case for an untapped pool of events which currently play the London O2 but do not play Manchester which could feed a new arena. CRA’s analysis shows that Manchester already attracts more events which also play London than any other city and

the most common reason for events not also playing MA is that they are London-centric events.

- 5.12. The flawed analysis which supports OVG's application takes *no account* of the impacts of Covid-19 on the entertainment industry generally or on MA and Manchester city centre.
- 5.13. Covid-19 is inevitably going to hit the entertainment industry and arena events particularly hard. Even once lockdown is over, the possibility of continued restrictions in some form on large events, reduced consumer confidence, a likely drop in demand as a consequence of its impacts on the economy and consumers' disposable incomes and increased costs due to higher safety standards are likely to have implications on the financial durability of the existing arena before taking any account of the potential effects of a second arena.
- 5.14. The impacts of Covid-19 have been devastating on the city centre economy which will likely take years to recover and render OVG's growth expectations all the more unrealistic - and cannot be ignored.

Significant risks to MA's ability to invest and survive

- 5.15. The combination of the existing competitive market and the lack of credible support for PWC and Ekosgen's respective predictions of sufficient growth to accommodate two large-capacity arenas within Manchester pose serious risks for both. In the short term, ASM's planned investment in redeveloping the MA and, in the longer term, both its annual capital investment in the MA (on average circa £1.5-£2m annually) and the MA's continuing viability.
- 5.16. Grant Thornton reports that any event loss will have a notable impact on MA's EBIDTA (earnings before interest, tax, depreciation and amortisation). Their analysis (see **Appendix 2** page 10) concludes that:
- even a 25% reduction in events would see MA's EBITDA reduce by 69%
 - a 46% reduction in events would make MA loss making
- 5.17. Remarkably, despite having access to that report, PWC (on page 8) cite ASM's redevelopment plans as supportive of their view that the Manchester market can accommodate two arenas. Plainly, ASM cannot invest significant sums in MA if it does not have a clear path to achieving a return on that investment.
- 5.18. The stark consequences of CRA and Grant Thornton's respective analysis is that if a new, large-capacity indoor arena is built at Eastlands, there can be no expectation for any viable return on ASM's proposed investment, which would deny ASM the opportunity to make that investment and, along with related loss of footfall through event transfer could lead to viability issues such that, ultimately, MA may have to close.
- 5.19. Closure of the MA would carry serious implications for:

- a) the loss of the direct and indirect employment opportunities which MA brings to Manchester city centre
- b) the continuing establishment of ASM's European headquarters in Manchester
- c) the viability of MA's rent commitments for the next 25 years
- d) knock-on effects for Manchester city-centre businesses

Significantly reduced economic benefits for the city centre

- 5.20. In 2019 Grant Thornton conducted a visitor survey of 1,474 visitors who attended at least one event in 2018. The results of that survey demonstrate that an arena located outside of the city centre would change visitor behaviours and lead to significantly reduced economic benefits for Manchester city centre (see page 9 of **Appendix 2**). The survey found that:
- a) 56% of visitors to MA surveyed would be less likely to travel into the city centre if attending an event at an arena outside the city centre
 - b) 45% would expect their spend in the city centre to decrease
 - c) 59% of those who stated they would spend less in the city centre also stated they would spend 76-100% less
- 5.21. A second arena outside the city centre risks serious harm, through material reductions to the visitor spend and operational and supply chain spends, which MA currently generates and attracts within the city centre.
- 5.22. Such reductions pose genuine and serious risks for businesses and jobs within the city centre, particularly in the hospitality, entertainment, and retail sectors which visitors to MA currently support.
- 5.23. Those are risks Manchester city centre can ill afford as it tries to rebuild slowly from the damaging effects of Covid-19.
- 5.24. ASM believes that MA can play an important part in that rebuilding process, which would be catastrophically undermined by approval of a second arena in an out-of-centre location at Eastlands.

6. Approach to Considering Major Out of Centre Development

- 6.1. The OVG proposal is for a 61,082m² (657,481 sq ft) multi-use arena (use class D2) including 17,451m² (181,841 sq ft) of ancillary retail / commercial uses (use class A1, A3 and A4).
- 6.2. These are ‘main town centre uses’ and the proposal is clearly ‘major development’ and ‘out of centre’ in accordance with the definitions in the Annex 2 Glossary of the National Planning Policy Framework (NPPF).
- 6.3. National policy in the NPPF places considerable emphasis on ensuring the vitality of town centres through planning policies and decisions, which *‘should support the role that town centres play at the heart of local communities, by taking a positive approach to their growth, management and adaptation’* (paragraph 85). The definition of town centres includes city centres in the Annex 2 Glossary.
- 6.4. Paragraph 85 continues, including advising that policies should (emphasis added):
- define a network and hierarchy of town centres and *promote their long-term vitality and viability* - by allowing them to grow and diversify in a way that can respond to rapid changes in the retail and leisure industries.
 - allocate a range of suitable sites in town centres to meet the scale and type of development *likely to be needed, looking at least 10 years ahead.*
 - where suitable and viable town centre sites are not available for main town centre uses allocate appropriate edge of centre sites that are well connected to the town centre.
- 6.5. The long-established policy is that main town centre uses should be located in town centres and paragraph 86 states that *‘local planning authorities should apply a sequential test to planning applications for main town centre uses which are neither in an existing centre nor in accordance with an up to date plan.’*
- 6.6. Paragraph 87 continues that when considering [out of centre] proposals, *‘preference should be given to accessible sites which are well connected to the town centre. Applicants and local planning authorities should demonstrate flexibility on issues such as format and scale, so that opportunities to utilise suitable town centre or edge of centre sites are fully explored.’*
- 6.7. When assessing applications for retail and leisure development outside town centres which are not in accordance with an up to date local plan, paragraph 89 states that *‘local planning authorities should require an impact assessment if the development is over a proportionate locally set [or default 2,500m²] threshold. This should include assessment of:*

- a) *The impact of the proposal on existing, committed **and planned public and private investment** in [a centre] in the catchment area of the proposal; and*
- b) *The **impact of the proposal on town centre vitality and viability**, including local consumer choice and trade in the town centre and wider retail catchment. (emphasis added)*

- 6.8. Paragraph 90 confirms that *‘where an application fails to satisfy the sequential test **or is likely to have significant adverse impact on one or more of the considerations in paragraph 89, it should be refused**’.*
- 6.9. The online Planning Policy Guidance (PPG) provides further commentary on planning for town centres and retail. The focus of the guidance is on promoting a positive vision for town centres, bringing together stakeholders and supporting sustainable economic and employment growth.
- 6.10. It advises that *‘any strategy should be based on **evidence of the current state of town centres and the opportunities that exist to accommodate a range of suitable development and support their vitality and viability.**’* (ID: 2b-004-20190722) (emphasis added)
- 6.11. The guidance recognises that:
- ‘it may not be possible to accommodate all forecast needs for main town centre uses in a town centre and, in those circumstances, planning authorities should plan positively to identify the most appropriate alternatives strategy for **meeting the identified need** for these main town centre uses **having regard to the sequential and impact tests**. This should ensure that any proposed main town centre uses which are not in an existing town centre are in the best locations to support the vitality and vibrancy of town centres and that **no likely significant adverse impacts on existing town centres arise** as set out in paragraph 90 of the NPPF’* (ID: 2b-005-20190722) (emphasis added)
- 6.12. PPG reiterates (ID: 2b-009-20190722) that the *‘sequential test supports the vitality and viability of town centres by placing existing town centres foremost in both plan making and decision taking.’* For plan making, the starting point of the sequential approach is to question whether the need for main town centre uses has been assessed before establishing whether identified need can be accommodated on town centre sites.
- 6.13. For decision taking, the PPG (ID: 2b-011-20190722) advises that *‘it is for the applicant to demonstrate compliance with the sequential test (and failure to undertake a sequential test could in itself constitute a reason for refusing planning permission).’* A checklist is provided including setting out that due regard should be given to the requirement to demonstrate flexibility in format and/or scale of the proposal.

- 6.14. In respect of impact, PPG outlines that *'the purpose of the test is to consider the impact over time of certain out of centre proposals on town centre vitality/viability and investment.'* (ID: 2b-014-0190722)
- 6.15. The PPG sets out that, as a guiding principle, *'impact should be assessed on a like for like basis in respect of that particular sector.'* Furthermore *'where town centre developments or investments are in progress it will also be appropriate to assess the impact of relevant applications on that investment. Key considerations will include [inter alia] the extent to which an application is likely to undermine planned developments or investments based on the effects on current/forecast turnovers, operated demand and investor confidence.'* (D: 2b-015-20190722)
- 6.16. A checklist is provided for applying the impact test. This includes:
- establishing the state of existing centres and the nature of current trading patterns (base year)
 - determining the appropriate time frame for assessing impact, focusing on impact in the first five years, as this is when most of the impact will occur
 - examining the 'no development' scenario
 - assessing the proposal's turnover and trade draw
 - considering a range of plausible scenarios in assessing the impact of the proposal on existing centres and facilities (which may require breaking the study area down into a series of zones to gain a finer grain analysis of anticipated impact)
 - setting out the likely impact of the proposal clearly, along with any associated assumptions or reasoning, including in respect of quantitative and qualitative issues
- 6.17. PPG advises that *'a judgement as to whether the likely adverse impacts are significant can only be reached in light of local circumstances. For example, in areas where there are high levels of vacancy and limited retailer demand even very modest trade diversion from a new development may lead to a significant adverse impact.'*
- 6.18. *'Where evidence shows that there would be no likely significant impact on the town centre from an [out of centre] proposal, the local planning authority must then consider all other material considerations in determining the application as it would for any other development.'* (ID: 2b-018-20190722)
- 6.19. Therefore, as set out in national planning policy and guidance, the correct approach to assess this major out of centre leisure development is to:
- first establish if there is market demand or need for the development
 - then undertake a sequential test of town centre and edge of centre sites and

- finally determine the likely impact of the proposal on the vitality and viability of the city centre and any planned investment.

There is no market demand

- 6.20. MCC has not undertaken any forecast or assessment of need for additional arena capacity as a part of policy formulation for the 2012 Core Strategy or the more recently planned (but now withdrawn) 2019/2020 ERF.
- 6.21. In support of its application, OVG has submitted reports on market demand prepared by PWC and Ekosgen as referred to above.
- 6.22. For ASM, CRA has undertaken a detailed analysis of these reports (submitted with this objection) and has identified fundamental flaws which undermine the case presented for the reasons summarised below.

OVG (PWC/Ekosgen)	ASM (CRA) comment
Accepts market needs to grow to support new arena alongside existing MA	Catchment area for MA almost identical to OVG so direct competition from new facility in far less sustainable location
Claims market <i>'demands'</i> new arena in Manchester to help rebalance the north / south economic divide	Manchester already very well served - it already has more seats per capita than all other UK catchments. MA and other existing venues have capacity to accommodate growth in more sustainable location. If second arena is to balance N/S divide, then better located in a northern city which has no arena
Predicts up to 150% growth in market by 2035 by forecasting circa 5.7% growth every year between 2020 and 2035. This forecast needed to justify the market for a second arena.	Forecast compounded growth rate without evidential basis and <i>wholly unrealistic</i> - relies on cherry picked data of niche relatively untested elements of the market (such as darts) and down playing large parts of the market (such as concerts and comedy) which have seen no growth. Actual past growth is only 0.3% per year. A more realistic forecast would be based on past trends, but growth would only be 5% by 2035 on this basis. Even this far more modest level of growth is very <i>ambitious</i> because of impact of Covid 19 in early years
Claims that MA is operating at 95% capacity	MA is in fact operating at 48% capacity (dates) - and can accommodate additional market growth through more events and greater attendance levels, as can other city centre venues such as The Factory, which hasn't yet opened and adds 6,500 seats to the Manchester venue offer
Expect significant growth in number of events attracted to Manchester because it is a new venue	This is pure conjecture and there is no credible basis for such a claim
Claims customers will be willing to travel twice as far to attend event at new arena	No credible basis for such a claim and not backed up by evidence. A larger catchment would overlap even more with the catchments of other venues in the vicinity in

	Liverpool, Leeds and Sheffield increasing the competitive pressure which is unlikely to significantly increase demand. Any such travel patterns would be car dominant given relative inaccessibility of Eastlands, with associated impacts on transport and air quality
Because of extraordinary growth forecast, concludes that new arena will trade with only <i>positive impacts</i> on the city centre and existing venues	Applying realistic market growth figures clearly demonstrates <i>no capacity or need</i> for second arena of this size, which would inevitably draw trade from existing venues in the city centre, a far more accessible location for events. Dividing the market would mean that one or both large arenas would not be able to operate viably.

- 6.23. As demonstrated by CRA, PWC and Ekosgen have applied unrealistic and overstated forecasts to predict a market that is up to 150% bigger over a 15-year period, which OVG needs to support a second arena in Manchester.
- 6.24. Based on actual past rates of growth, the market could grow by 5% by 2035 but this should be seen as *ambitious* because of the significant detrimental impact Covid 19 will have on the next few years which will likely temper any growth as the market seeks to re-establish itself after lockdown.
- 6.25. It is far more likely that the event market will contract in the short term, resulting in the historic flat trend being adjusted downwards, further demonstrating there is no need for a second large arena in Manchester.

The sequential test

- 6.26. The online PPG sets out that the purpose of the sequential test is to support *‘the viability and vitality of town centres by placing existing town centres foremost in both plan-making and decision-taking.’*
- 6.27. Based on PWC/Ekosgen’s overstated analysis of market need for a second arena, Deloitte has purported to undertake a sequential test to identify if there are any more suitable locations for development to accommodate the development necessary (they claim) to meet the identified need.
- 6.28. Although they claim that the arena is in part needed to help rebalance the north/south economic divide, Deloitte has only considered Greater Manchester in its analysis and has not commented on how other northern cities might alternatively accommodate an arena to help with this high-level objective. The stated aim would, of course, be self-defeating if the effect was to cause serious economic harm on Manchester City Centre.
- 6.29. Within Greater Manchester, Deloitte’s commentary and justification for dismissing sites is subjective and arbitrary.

- 6.30. The PPG advises that applicants should have regard to flexibility of format. It asks: *'is there scope for flexibility of format and/or scale of the proposal and has the applicant adequately considered what contribution more central sites are able to make individually to accommodate the proposal?'*
- 6.31. Deloitte set a site threshold of 2Ha for their sequential test, which they determine is the minimum site area necessary to accommodate a new large indoor arena. However, their analysis has given:
- no consideration of available capacity within existing venues in the city centre to accommodate the need PWC/Ekosgen identified
 - no consideration of the *planned investment* in the city centre (including at MA, The Factory and Mayfield Depot) which can help accommodate future market growth in a more sustainable location
 - no consideration of the extent to which the existing MA could be altered to provide the same entertainment offer proposed by the OVG arena
 - no consideration of the potential disaggregation of uses and potential sequentially preferable sites to accommodate the significant (17,451m²) retail element
- 6.32. These are significant shortcomings of the purported sequential test which appears to have been prepared after OVG had already committed to Eastlands, as expressed through the interest identified in the 2019 ERF Update.
- 6.33. MA occupies a sequentially preferable location, with far greater catchment penetration by public transport than Eastlands (twice as many people can get to MA within an hour by public transport, compared to Eastlands) and in a location which substantially underpins the city centre retail and leisure economy.
- 6.34. It currently operates at 48% capacity (dates sold) and ASM is planning for major investment in its 25th year that will overhaul and upgrade the existing venue and increase capacity to meet future potential market demand.
- 6.35. Other city centre venues, including the Arts Council England and MCC funded The Factory, will also be able to accommodate market growth and they too occupy more sustainable locations in the city centre, none of which are addressed in the sequential test because of the 2Ha threshold set for a new large indoor arena.
- 6.36. The OVG application also specifies 17,451m² of retail space (A1, A3 and A4). This should not all be considered 'ancillary' to the primary function of the arena and certainly requires further justification as this amount of retail space is *circa 25% bigger than the Corn Exchange*.

- 6.37. Only very limited justification is provided within the submission as to why such a significant element of retail is needed. Paragraph 7.21 of the Planning Statement identifies that the quality of commercial offer proposed will support '*staggered access and egress of people (ie people arriving early or staying on somewhat to enjoy the facilities and the occasion). This will help to smooth out people flows and the potential for congestion.*'
- 6.38. The OVG strategy therefore appears to be to draw customers away from the city centre earlier, to flatten the peak travel times because of the expected problems of getting customers to and from the venue, especially when combined with football matches at the Etihad Stadium.
- 6.39. By introducing so much retail space, there will inevitably be more trade drawn away from the city centre, yet OVG has undertaken *no impact assessment* on the city centre food & beverage and retail facilities, contrary to NPPF paragraph 89(b).
- 6.40. Events at MA are supported by the wider retail offer in the city centre and vice versa, including at Printworks and the Corn Exchange, immediately adjacent to the existing arena. The OVG concept appears to be that it will be able to accommodate all retail and venue requirements within one facility, which will negate or significantly reduce any potential spin off economic benefits in the city centre.
- 6.41. As stated previously, city centre trade has been challenging for some time and will likely take years to recover from the impact of Covid 19. The Deloitte sequential test has not, however, acknowledged or considered the potential of the city centre to accommodate the retail/commercial components of the proposed venue in sequentially preferable locations. Rather, the retail/commercial content is *maximised* to pull trade *away* from the city centre, to help smooth movement of people at peak times to this relatively (when compared to the city centre) inaccessible location. This is contrary to national and local planning policies which seek to protect the vitality and viability of city and town centres, applying a town centre first approach.
- 6.42. Finally, Deloitte overplays the policy 'support' for an arena at Eastlands based on the 2019 ERF Update which the Council has now confirmed is not adopted and therefore cannot be a material consideration in determining the application.
- 6.43. Deloitte has dismissed alternative sites of similar characteristic to Eastlands for a variety of reasons (policy, viability, site assembly etc) yet a major factor for preference for Eastlands over other out-of-centre alternative locations appears to be the association with Manchester City Football Club and its international brand, which is not a relevant factor in a sequential test, the purpose for which is to *protect* vitality and viability of *the city centre*.
- 6.44. For these reasons, a proper sequential test has not been undertaken.

Impact on city centre vitality and viability

- 6.45. Through compounding unrealistic growth rates over a prolonged 15-year period to forecast a fanciful market that would be large enough to accommodate a second indoor arena within the well provided for Manchester catchment, Ekosgen then reaches the conclusion, that all ‘impacts’ will be positive.
- 6.46. OVG forecasted market growth is such that no trade will be drawn from the city centre at all. Indeed, quite the reverse, the growth figures are exaggerated and used to calculate additional spend and resultant economic gain for Greater Manchester and Eastlands, drawn from event numbers doubling across the city.
- 6.47. With market growth based on past levels as set out by CRA, clearly a second arena of this size and retail content will have a significant impact on the city centre as set out above and in more detail by Grant Thornton in support of our submission to the 2019 draft ERF Update last June (attached at **Appendix 2**).
- 6.48. Overall, there will clearly be detrimental impacts arising from a second indoor arena offering a similar capacity and configuration to a similar catchment area. This will have a pronounced and negative effect on a fragile city centre economy and will directly impact planned private investment by ASM on MA.
- 6.49. The proposed new arena and quantum of commercial retail, food and beverage content will also have a direct and detrimental effect on planned investment in MA and potential investment at the Printworks and other regeneration projects within the city centre which rely upon a vibrant city centre.
- 6.50. Given the dramatic recent fall in visitors to the city and the likely contraction of the events market as a result of Covid 19, alongside the continuing trend for online retail, there is a pressing need to protect Manchester city centre and help in its recovery at a time of crisis.
- 6.51. The OVG proposal will have a clear detrimental impact on city centre vitality and viability, particularly the evening and leisure economy which MA helps to underpin and it therefore conflicts with the statutory development plan and NPPF, as set out in the following Section.

7. Non-compliance with the Statutory Development Plan

- 7.1. As set out above, national planning policy and guidance very much supports town and city centre vitality and viability. NPPF and PPG are material considerations of significant weight.
- 7.2. NPPF sets out that *'the planning system should be genuinely plan led'* (paragraph 15). Plans should be prepared with the objective of contributing to the achievement of sustainable development and strategic policies should set out an overall strategy for the pattern, scale and quality of development and make sufficient provision for housing, employment, retail, leisure and other commercial development (paragraph 20).
- 7.3. Paragraph 23 advises that *'strategic policies should provide a clear strategy for bringing sufficient land forward, and at a sufficient rate, to address **objectively assessed needs** over the plan period, in line with the presumption in favour of sustainable development.'*
- 7.4. The preparation of all policies should be *'underpinned by **relevant and up to date evidence**. This should be adequate and proportionate, **focused tightly on supporting and justifying the policies concerned and take into account relevant market signals'*** (paragraph 31).
- 7.5. Local plans and spatial development strategies should be informed throughout their preparation by a sustainability appraisal. This should *'demonstrate how the plan has addressed relevant economic, social and environmental objectives'* (paragraph 32). Policies in local plans should be reviewed to assess whether they need updating at least once every five years and should then be updated as necessary.
- 7.6. As set out at paragraph 35, plans must be *positively prepared*, providing a strategy which (as a minimum) seeks to meet the area's objectively assessed needs. They must be *justified*, taking into account reasonable alternatives and based on proportionate evidence. They must be *effective*, deliverable over the plan period, and they must be *consistent with national policy*.
- 7.7. In accordance with Section 38(6) of the Planning and Compulsory Purchase Act, proposed applications for development should be determined in accordance with the statutory development plan, unless other material considerations indicate otherwise.
- 7.8. NPPF Paragraph 213 sets out that old plans are not necessarily out of date and that *due weight should be given to policies in accordance with their degree of consistency* with the Framework.

The Development Plan

- 7.9. The development plan comprises saved policies from the Unitary Development Plan (1995) and the Core Strategy, which was adopted in 2012. Both documents precede the NPPF (2019) and online PPG and have not been updated.

- 7.10. The Deloitte Planning Statement claims that the proposed OVG arena ‘*clearly aligns with the ambitions of planning policy for Eastlands over the last 25 years*’ and makes specific reference to policy EC7, which refers to the opportunity for a ‘*leisure, recreation and entertainment visitor attraction of national significance*’ in seeking to justify the OVG proposal against the development plan.
- 7.11. However, the development plan must be considered *as a whole* and both UDP and Core Strategy reflect national guidance in that they promote and seek to direct major development proposals towards the city centre.
- 7.12. A more balanced overall review (as demonstrated in the following paragraphs) clearly identifies policies throughout the plan which reflect the national policy and seek to support the city centre - for major development to be directed to city centres and for out-of-centre proposals to be justified through sequential and impact tests.
- 7.13. Furthermore, policy EC7 on which Deloitte rely, did not emerge from any *objective assessment* of need for more leisure space or specifically a second large indoor arena. The Local Plan evidence base included no analysis of leisure or entertainment needs and the Sustainability Appraisal contains no reference to an arena at Eastlands which, as a major town centre use of regional significance, should be directed to the city centre (if there were any need) in accordance with NPPF and Core Strategy policy CC1.

The Core Strategy

- 7.14. The Core Strategy in particular, identifies the importance of the *city centre* as the economic focus of the city region. It recognises the city centre as providing ‘***the most sustainable location for significant concentrations of employment uses and retail and leisure attractions***’ (paragraph 2.35) (emphasis added).
- 7.15. Eastlands is identified as a district centre and a focus for major national and regional sporting events (paragraph 2.48). District centres are identified primarily to meet the needs of surrounding local communities.
- 7.16. Identified challenges for East Manchester (2.56) include the need for regeneration, including the opportunity to further develop major commercial, leisure and residential uses, with a key role in the development of a competitive city region.
- 7.17. The challenge is to create a competitive city region for the benefit of Manchester as a whole. A retail hierarchy is set which focuses on the city centre and the spatial principles identify the regional centre as the focus for economic and commercial development, including leisure and cultural activity.
- 7.18. The city centre is recognised as the primary economic driver and as having a vital role as the focus for visitors to the region, offering opportunities for cultural and leisure activities (8.19).

The role of the city centre is recognised through *'its established policy context which emphasises its importance in delivering the city's goals'* (8.20).

- 7.19. Policy CC1 sets the primary economic development focus on the city centre and its immediate fringe, as a suitable location for a range of economic development uses including leisure and entertainment which *'will be encouraged in the city centre.'*
- 7.20. The Core Strategy states that *'the city centre's key role to the city region is as an economic driver and it is therefore vital that it can facilitate the economic growth that has been forecast'* (8.22 – although noteworthy that the evidence base provides no forecast for major new leisure or entertainment requirements).
- 7.21. Policy CC2 forecasts new retail floor space required in the city centre over the plan period, to be focused on the primary shopping area (PSA) in the city centre. Where proposals come forward outside the PSA, the policy requires careful consideration of potential impact on the PSA to protect vitality and viability and to encourage sustainable development.
- 7.22. The retail study that was undertaken in support of the Core Strategy includes no equivalent forecast demand for additional leisure or entertainment floorspace over the plan period. Furthermore, a review of the Sustainability Appraisal undertaken to support the Core Strategy confirms that no large arena or equivalent scale leisure facility was assessed in the formulation of the policy - which does not therefore reflect any *objectively assessed need*.
- 7.23. Conversely, policy CC4 identifies that the city centre will be *'the focus for culture and leisure in the city region.'* Planned investment and *'development in the city centre which improves facilities for visitors, including Manchester residents, will be promoted'* (emphasis added).
- 7.24. Policy EC5 promotes economic development outside of the city centre in East Manchester for employment use including leisure at Eastlands which, we note, has in the past been identified as the proposed site for a regional casino and was also considered as the potential home for the National Museum of Football, which ultimately located at Urbis in the city centre.
- 7.25. Regeneration at East Manchester has clearly been a long term and widely shared vision - and one that ASM supports - but, *critically*, policy EC7 identifies that *'developments which support the overall vision for this major regeneration initiative on sites within the general environs of Eastlands will be appropriate, provided they do not prejudice other policies within the plan'* (emphasis added), which this application clearly does.

Centre hierarchy

- 7.26. Core strategy objective 4 relates to Centres, with the city centre recognised as the primary economic driver for the city region (10.2). The plan identifies that an important policy element of the core strategy is to define a centre hierarchy which it does through policy C1, taking account of the different roles of the city centre, district centres and local centres.

- 7.27. Manchester city centre is reiterated as the focus for retail, leisure and tourism. District centres (including Eastlands), on the other hand, are a focus for the city's residential neighbourhoods providing readily accessible and more local services.
- 7.28. Paragraph 10.11 clarifies that *'the hierarchy has provided the basis to resist significant out of centre retail development whilst proactively supporting developments within existing centres.'*
- 7.29. District centre development (paragraph 10.18) ***'must reflect the hierarchy and should not be of a scale which would undermine the vitality of other centres in Manchester and beyond. For all district centres in Manchester development proposals will need to be proportionate to the defined role and function of that centre and meet the tests set out in national policy guidance'*** (emphasis added).
- 7.30. Eastlands is identified as one of four district centres in East Manchester through policy C4. Based on the retail assessment which underpinned the Core Strategy, the policy identifies that 5,000m² of new retail floorspace should be provided *across the four centres* over the 15 year plan period to 2027 (average 1,250m² each).
- 7.31. This compares in scale with the retail content in the OVG arena application, which proposes more than 10 times that amount (over 17,451m²) as a part of a single out-of-centre development at Eastlands.
- 7.32. The Core Strategy at paragraph 10.55 states that *'a key priority for the council's approach to retailing is to safeguard and enhance the city's existing centres.'* Policy C9 relates to out of centre development of town centre uses which, it says, will be inappropriate unless it can meet the sequential and impact tests.
- 7.33. The supporting justification reflects national policy advice and states that *'the council believes that the demand for additional town centre uses can be accommodated without compromising the network of centres'* (10.56) and requires full impact assessments for major development.
- 7.34. Policy C10 relates to leisure and the evening economy and, subject to certain criteria, supports new development and redevelopment which supports the evening economy and contributes to the vitality of district centres. The justification explains that the policy aims to encourage evening and night-time economy uses that contribute to the vitality of Manchester's centres, recognising particularly the role that the city centre has as the focus for the evening economy.
- 7.35. Overall, therefore, Policy EC7 identifies Eastlands as a suitable location for a major sports and leisure visitor destination with complementary commercial, retail and hotels. However, the policy pre-dates NPPF by seven years and has not been updated. It is not based on an analysis of objectively assessed need and should therefore only be afforded *limited weight* in the determination of this application.

- 7.36. The OVG application conflicts with development plan policies which focus on the city centre and directing major retail and leisure development to the city centre, which are reflective of national up to date policy, and should be given significant / full weight in the determination of this application.
- 7.37. The extent to which Deloitte claims compliance with the statutory development plan is significantly tempered by the following factors:
- the supporting evidence base to policy EC7 did not consider a large-scale arena and did not consider its impact on the existing city centre arena and surrounding commercial businesses
 - the sustainability appraisal underpinning the policies of the core strategy did not consider the environmental effects of a large-scale arena
 - the retail study supporting the policies of the core strategy did not provide any forecast demand or objectively assessed need for additional leisure development or a large-scale arena
 - the Core Strategy clearly promotes the focus of development for town centre uses on the city centre in the centre hierarchy
 - policy EC7 confirms that development of leisure at Eastlands will only be supported if it does not prejudice other policies in the plan

Eastlands Regeneration Framework (ERF)

- 7.38. As set out in the Deloitte Planning Statement, various iterations of the ERF have sought to guide investment and development in East Manchester over the last 20 years.
- 7.39. OVG and Deloitte refer to the 2019 draft ERF Update which introduced specific reference to the opportunity for a new large 20,000 plus capacity indoor arena, although this reference was deleted from the version of the ERF which was initially adopted by MCC on 27 March 2020, before the adoption decision was cancelled on 14 May 2020 (see **Appendix 4**). The ERF Update 2019/2020 is not a material consideration and no reliance can lawfully be placed on it at all.
- 7.40. Deloitte highlights the long-held ambition to diversify the variety of uses at Eastlands and the ERF guiding investment for a major (destination) leisure and recreation offer.
- 7.41. We do not dispute the regeneration ambition for Eastlands, which was always intended to build on the platform of creating a sports cluster and in a way which complemented the city centre.
- 7.42. The 2017 iteration of the ERF referred to this platform for growth which, it said *'could form a new sport leisure and recreation economic cluster for the city and the North of England.'* New commercial development was aimed at sports related business and other complementary offers

and the framework specifically stated that such usage should '*be **differentiated from but complementary to the offer in the city centre***' (page 22) (emphasis added).

Conclusion

- 7.43. Overall, only limited weight can be attributed to policy EC7 as the policies are not based on any objective assessment of need for the proposed development. The policy is silent as to the size of the proposed facility and it needs to be read alongside other policies including CC1, CC4 and C1 which clearly determine that the focus for any new development must be the city centre. It is only if city centre sites are unsuitable that the Eastlands site might be considered appropriate, subject also to an impact assessment (NPPF paragraph 89).
- 7.44. In considering suitability, local planning authorities and operators are expected to demonstrate flexibility on matters such as format and scale (NPPF paragraph 87). Particular attention should be given to assess whether the sequential test has demonstrated such flexibility and there has been no sequential test which has considered either the planned investment in MA or the extent to which the existing MA could be altered to provide the same entertainment offer proposed by the OVG arena.
- 7.45. No weight should be attributed to the 2019/2020 ERF Update which has been withdrawn and is not therefore a lawful material planning consideration. The 2017 ERF provides no support for the application as it was predicated on developing sports and higher education facilities that would '*be differentiated from, but complementary to, the offer in the city centre*' and '*as such, Sport will be the economic educational community driver for the Etihad campus and surrounding area.*'.
- 7.46. Similarly, the emerging Greater Manchester Spatial Framework and Local Plan Issues & Options Paper cannot be given any material weight in the determination of the application as they are at early stages of consideration, are subject to objection and comments, and have not been independently tested.
- 7.47. The development plan policies which support the vitality and viability of the city centre and recognise its vital role as the priority and focus for economic, retail and leisure proposals, because it is the *most sustainable location* align closely with national policy in NPPF and therefore are up to date and carry significant weight.
- 7.48. The OVG proposal conflicts with these important policies and is therefore not in accordance with the development plan when considered as a whole.

8. Transport and Climate Implications

- 8.1. It is national planning policy to promote sustainable transport, as set out in the NPPF. In assessing development proposals, paragraph 108 states that *'it should be ensured that:*
- a) appropriate opportunities to promote sustainable transport modes can be - or have been - taken up, given the type of development and its location;*
 - b) Safe and suitable access to the site can be achieved for all users; and*
 - c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.'*
- 8.2. Paragraph 109 states that:
- 'Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.'*
- 8.3. Blacc Transport, working with Mott MacDonald, have undertaken a detailed review of the Transport Assessment prepared by Buro Happold (BH) in support of the OVG arena and Blacc's findings are set out in some detail in the Eastlands Transport Review (submitted with this objection). They identify various and important concerns with the BH assessment, which requires careful and robust scrutiny.
- 8.4. Eastlands is a far less sustainable location than the city centre and regular events (3-4 per week based on OVG forecasts) would have a significant adverse impact on public transport, highway capacity and parking, especially when combined with other events and matches at Etihad stadium.
- 8.5. Blacc identifies that there are physical limits to capacity of the existing public transport options at Eastlands which would be overrun at peak hours (for example, peak hour forecast demand for the Metro from a combined event is *twice* the capacity of the network), resulting in more customers walking from the city centre or driving.
- 8.6. At 3km from Piccadilly train station, the application site is about a 30-minute walk away from this main transport hub, and further from Victoria Station and the core of the city centre. The walking route options are of mixed quality in terms of surfaces, crossing points and pavement widths and yet little mitigation is proposed.
- 8.7. Large crowds walking on narrow footways, canal towpaths or waiting for a train on the small platform at Ashburys (the closest station, which is inaccessible to customers with mobility

issues), raise potential safety concerns which have been assessed by Movement Strategies Limited (MSL) in their report enclosed with Blacc Transport's report.

- 8.8. Limitations to the public transport capacity to cope with demand and the time needed to walk from city centre transport hubs will result in a greater proportion of customers travelling by car, with associated increase in carbon emissions. However, the OVG Environmental Statement failed to include emissions resulting from these transport movements in its analysis (see below).
- 8.9. On arrival at Eastlands, the restricted parking provision means that parking for a significant number of cars (up to 5,000 on combined event days) will need to be absorbed in surrounding streets with resulting detrimental impacts for residents.
- 8.10. To reduce impact on the immediate neighbours, the application proposes an extended controlled parking zone, but this pushes the impact into a wider and undefined area, with no clear indication of where customers will park and which routes they will therefore take to get to the site on foot. Moreover, the proposed CPZ is merely a replication of the exact same scheme proposed as part of the Etihad Stadium expansion and does not, therefore, represent a new mitigation proposal.
- 8.11. There will also be significant demand for taxis, particularly at the end of an event where the BH estimate is for over 1500 at the evening peak, yet it is not clear how taxis will be accommodated and the BH assessment refers to the rank on Rowsley Street which accommodates only 10 taxis.
- 8.12. The impact of additional traffic on the local highway network has been considered, but Blacc raises questions about methodology and data presented in the assessment, which does not analyse the impacts with enough rigour for the major scheme proposed.
- 8.13. Furthermore, and inexplicably, no assessment has been undertaken on the strategic road network, even though the North East quadrant of the M60 experiences congestion during match days and stadium events, to which arena events would be added.
- 8.14. Furthermore, there is no analysis of combined events beyond the proposed arena and Etihad Stadium when, in reality, there would be regular combinations of both arenas (assuming MA is operating in competition) and the potential for multiple events such as at Old Trafford, which are not considered.
- 8.15. In terms of mitigation, OVG relies heavily on travel demand management, seeking to influence travel behaviours to try and reduce the number of customers that will travel by car. But with limited alternative public transport travel options, this strategy can only have a limited effect.
- 8.16. As Blacc demonstrates, the one hour primary catchment area for customers travelling by public transport enables *twice* as many people to get to MA than could get to the application site at Eastlands, which is a far less sustainable location than MA and therefore far less suitable for regular large events (3-4 per week) which draw customers from a wide catchment area.

- 8.17. To help ‘flatten’ the peak hour travel, OVG’s strategy includes drawing more customers out to the venue earlier, which could explain the extent of retail, food and beverage content proposed - but this will result in greater trade draw from the city centre retail and food and beverage outlets. With market forecasts based on more realistic past rates (as per CRA analysis) and a shared event market with the MA, such impacts on the existing city centre have not been assessed at all.
- 8.18. Therefore, against the requirements of NPPF paragraph 108 above:
- a) the opportunities to promote sustainable transport modes are limited and are not suitable for the regular nature and large scale of the events proposed
 - b) the nature and quality of walking routes, the narrowness of footways and physical limits on size of Metro and train station platforms means that safe and suitable access cannot be achieved by all users
 - c) the development is likely to have a significant impact on the transport network. The public transport network does not have enough capacity to meet the demand at peak times; the limitation to parking will result in high absorption levels over a wide part of East Manchester and the impacts on congestion on the local and strategic road network are not fully known (as they have not been fully assessed)
- 8.19. In these circumstances, with reliance on private car travel, the limitations to public transport and walking options and the number and scale of proposed events throughout the year, the cumulative impacts on the road network, Blacc Transport concludes, will be severe, which is reason (in accordance with NPPF paragraph 109) for consent to be refused.

Climate Change

- 8.20. The UK is committed to net zero carbon emissions by 2050 through the Climate Change Act and MCC has committed to meet net zero carbon by 2038. A report prepared by Air Quality Consultants (AQC) has been attached as an appendix to the accompanying Blacc report. AQC has reviewed the Environmental Statement (ES) chapter on climate change prepared by BH and provided comments on the submission.
- 8.21. The ES in support of the application includes an assessment to quantify the greenhouse gases (GHG) emitted as a result of the construction and operation of the proposed arena. It does not, however, include a calculation of emissions relating to the transport element of the proposal which, as set out above, will rely to a significant degree on the private car.
- 8.22. It calculates that 72,570 tonnes of CO₂e will be emitted over a 60-year lifetime of the arena generated by construction and operation and that this would comprise a ‘*major to moderate adverse impact*’ on the environment before mitigation.

- 8.23. Proposed mitigation is identified as the opportunity to remove (as yet uninstalled) natural gas heating and cooking appliances from the arena and to provide a Travel Plan setting out measures to encourage sustainable transport.
- 8.24. With these proposed mitigation measures, the impact is considered by the OVG team to revert to a lesser '*moderate to minor adverse impact.*'
- 8.25. Because it is not included in the BH analysis, Blacc Transport has reviewed and calculated the impact of extra vehicle movements and what that element of the proposed development will mean for GHG emissions. As set out in the AQC report, for car movements alone, this amounts to an additional 236,117 to 355,001 tonnes of CO₂e over the 60-year lifetime cycle, depending on the number of arena events.
- 8.26. This is a *three to five times greater impact* on climate change than the emissions from construction and operation of the arena set out in the OVG Environmental Statement and runs counter to the City's commitment to zero carbon by 2038.
- 8.27. National and local policies which support and promote major development in the city centre are partly to ensure that there are a variety of sustainable travel options which will influence travel patterns and reduce reliance on the private car.
- 8.28. The proposed arena at Eastlands would achieve the opposite. It would significantly increase reliance on the private car adding GHG emissions contrary to national and local climate change commitments.

9. Conclusion

- 9.1. MA is at the heart of Manchester city centre, adjacent to Victoria Station, one of its major transport nodes. For 25 years it has been (and remains) a vital contributor to the city centre retail, leisure and evening economies, supporting a great many city centre jobs, generating considerable city centre spend and, overall, is an integral part of Manchester's culture and rich music heritage.
- 9.2. It is widely recognised by organisations including Pollstar, Venues Now and Billboard, as a world-class venue and has recently been awarded the highest possible (gold status) accolade by Attitude is Everything, improving deaf and people with disabilities access to live music.
- 9.3. MA currently operates a total of about 140 events per year (2-3 per week) and has capacity to accommodate future market growth through the availability of more events and increased ticket sales.
- 9.4. MA is the largest indoor arena in the UK. It forms an integral component of a broader mix of city centre venues with different capacities and potential configurations, which together already make Manchester the best served catchment in the Country, measured by seats per capita.
- 9.5. To mark its 25th anniversary, ASM is planning a significant investment in MA of up to £100m which, once approved and implemented, will provide a step change enhancement to this city centre institution. These plans have been in development since 2018 and formal pre-application discussions with MCC took place in May this year. Following that meeting, plans are being worked up for wider consultation which take into account MCC's comments and observations.
- 9.6. This planned investment will increase capacity and provide even greater flexibility and range of layout formats. It will focus on improving customer experience through new concourses, improved arrival points and enhanced hospitality experiences.
- 9.7. The investment will ensure MA retains its status in the very top echelon of indoor arenas throughout the world, safeguarding existing and generating new employment opportunities and focusing investment in the city centre, in full accordance with adopted and long-standing planning policies.
- 9.8. However, this planned and ongoing investment - investment which is protected by NPPF paragraph 89(a) - is threatened by the OVG proposal, which is for an out-of-centre arena of similar scale, format and function, that will compete directly for trade in broadly the same catchment area as the existing MA, with consequential, detrimental impacts on MA and the city centre.
- 9.9. OVG has (through PWC/Ekosgen) forecast that market growth will accelerate tenfold over past rates between 2020 and 2035, such that they claim all impact on the city will be positive. The

market growth will, they claim, accommodate the new out-of-centre arena (attracting 2 million ticket sales per year) without affecting MA's city centre operation with its 1.2m ticket sales.

- 9.10. All credible evidence, as set out by CRA and Grant Thornton suggests to the contrary. Market growth based on past rates (ambitious given the impact of Covid 19) forecast 5% growth in total by 2035, not up to 150% growth claimed by OVG, and certainly not sufficient projected growth to accommodate a second large arena without significant adverse impact on the city centre.
- 9.11. The OVG proposals include a very substantial 17,451m² retail, food and beverage offer. This is circa 25% larger than the Corn Exchange and yet the impact of this out-of-town floorspace on the city centre has not been assessed.
- 9.12. The impact on MA and consequently the city centre will be severe and, if OVG's proposals are approved and implemented, the proposed investment of up to £100m in respect of MA will not take place. This will have a dire knock-on effect on the city centre economy which is seeking to recover from the catastrophic effect of Covid 19.
- 9.13. In terms of sustainability, Eastlands is a far less accessible location than Victoria Station, with relatively limited public transport options which have limited available capacity. Higher proportions of visitors will therefore drive, adding congestion and significant carbon emissions in conflict with MCC's commitment to be carbon neutral by 2038.
- 9.14. The estimated CO₂ emissions from cars travelling to the proposed arena are 3-5 times higher than the lifetime emissions from construction and energy for the proposed new arena, yet they are not, however, included in the submitted EIA which therefore materially overstates the sustainability of the proposed development.
- 9.15. The regularity of proposed events attracting crowds on 3-4 days per week will add significant congestion on the transport network, especially when combined with existing commuter traffic and even more so when events clash with other events at the Etihad Stadium and elsewhere in the city.
- 9.16. For the reasons set out by Blacc, AQC and MSL, the application should be refused because the proposed development will inevitably encourage the use of cars instead of public transport and have a material adverse impact on congestion and on the transport network. MSL's analysis of crowd control demonstrates important public safety concerns.
- 9.17. ASM has consistently raised its concerns since the proposals were first announced in early 2019. Objections were submitted to the draft ERF Update which OVG claims provide policy support. But, following ASM's continued objection, the ERF Update has now been formally withdrawn by MCC and it therefore carries **no weight** in the determination of this planning application.
- 9.18. National policy in the NPPF very much protects and supports town and city centres, emphasising that planning decisions should *'support the role that town centres play at the heart of local*

communities' (paragraph 85). Major out-of-centre proposals must satisfy the impact and sequential tests.

- 9.19. In accordance with paragraph 89, the impact assessment should include assessment of:
- a) *the **impact** of the proposal on existing, committed and **planned** public and **private investment** in a centre or centres in the catchment area of the proposal; and*
 - b) *the **impact** of the proposal on **town centre vitality and viability**, including local consumer choice and trade in the town centre and the wider retail catchment (as applicable to the scale and nature of the scheme).*
- 9.20. Inexplicably, and contrary to the requirement of NPPF para 89(a), the Applicant has failed to carry out an impact assessment of the proposed development on the MA. Nor has the applicant undertaken an impact assessment on the vitality and viability of the city centre.
- 9.21. In accordance with paragraph 90:
- 'where an application fails to satisfy the sequential test or is likely to have a significant adverse impact on one or more of the considerations in paragraph 89, it **should be refused.**' (emphasis added)*
- 9.22. The statutory development plan in the form of the 2012 Manchester Core Strategy includes city centre focused policies and a centre hierarchy which reflects the national policies in the NPPF. MCC policies CC1, CC4 and C1 all seek to protect the city centre, yet the OVG application for a major out-of-centre development is in direct conflict with these important policies.
- 9.23. Although policy EC7 refers to the suitability of Eastlands for a leisure, recreation and entertainment visitor attraction of national significance, this policy was not based on any objectively assessed need for a new large indoor arena or major out-of-centre retail development. Such proposals formed no part of the Sustainability Appraisal which under-pins the development plan and the weight that can be attached to this policy is lessened as a result. Policy EC7 does not purport to trump the policies for the protection of the city centre.
- 9.24. Out-of-centre development of this scale and nature requires a detailed and robust impact assessment in accordance with NPPF paragraph 89. MCC in the EIA Scoping Report requested a robust assessment of the impact on MA and the city centre vitality and viability, yet this has not been provided.
- 9.25. OVG has failed to consider the fragile nature of the city centre which, before Covid 19, was already experiencing challenging trading conditions and uncertainty with Brexit and trends towards more online retail.
- 9.26. Covid 19 has had a devastating impact on city centres and accelerated the move to more online retail. MCC recognise in the May report to the Executive that recovery for the city centre will

take years. The leisure and evening economy has been particularly hard hit by the pandemic and, granting planning approval for this application will serve to inflict additional detrimental impact to the city centre at a time of national crisis.

- 9.27. The sequential test undertaken has given no regard to available capacity within the existing city centre venues including at MA, The Factory (not yet open) and Mayfield Depot, to accommodate future market growth within the city centre.
- 9.28. No regard is given to the substantial planned investment at MA, which is placed at significant risk if planning permission is granted, or in other city centre retail and leisure developments which would be detrimentally affected by the proposed out-of-centre development.
- 9.29. Overall, there is no market need for a second large arena of this size outside of the city centre. There is no market requirement for 17,451m² of retail, food and beverage floorspace in an out-of-centre location.
- 9.30. With the market falling sharply in the short term, and city centre recovery likely to take years, the existing city centre businesses and venues should be protected and fully supported by MCC.
- 9.31. The city is clearly in a fragile state and MCC, the Greater Manchester Combined Authority, Local Enterprise Partnership, city centre stake holders and the GM community must work hard together to help recovery in the city centre and get the retail and leisure / evening economy back operating.
- 9.32. Build Back Better should not mean supporting out-of-centre development at the expense of existing retail and leisure outlets in the city centre, and contrary to the national planning policy.
- 9.33. ASM's planned investment of up to £100m in the city centre is in direct jeopardy if the OVG application is approved, as a second arena will split the market share in half, resulting in one or both arenas failing, with potentially devastating economic implications for the city centre economy.
- 9.34. MCC has consistently identified that regeneration proposals at Eastlands should *complement* and *differentiate* from the existing offer in the city centre. The OVG application does neither. It is not very different nor is it complementary to the existing city centre offer and, for the reasons set out in this submission, (if approved) will proceed at the *expense of the city centre*.
- 9.35. Furthermore, the OVG proposal significantly exaggerates market growth and therefore does not adequately or accurately assess the impact of the development on the MA or wider city centre retail and leisure economies. It will:
 - a) Have a significant detrimental impact on the existing MA
 - b) Jeopardise ASM's planned, and any future, investment at MA

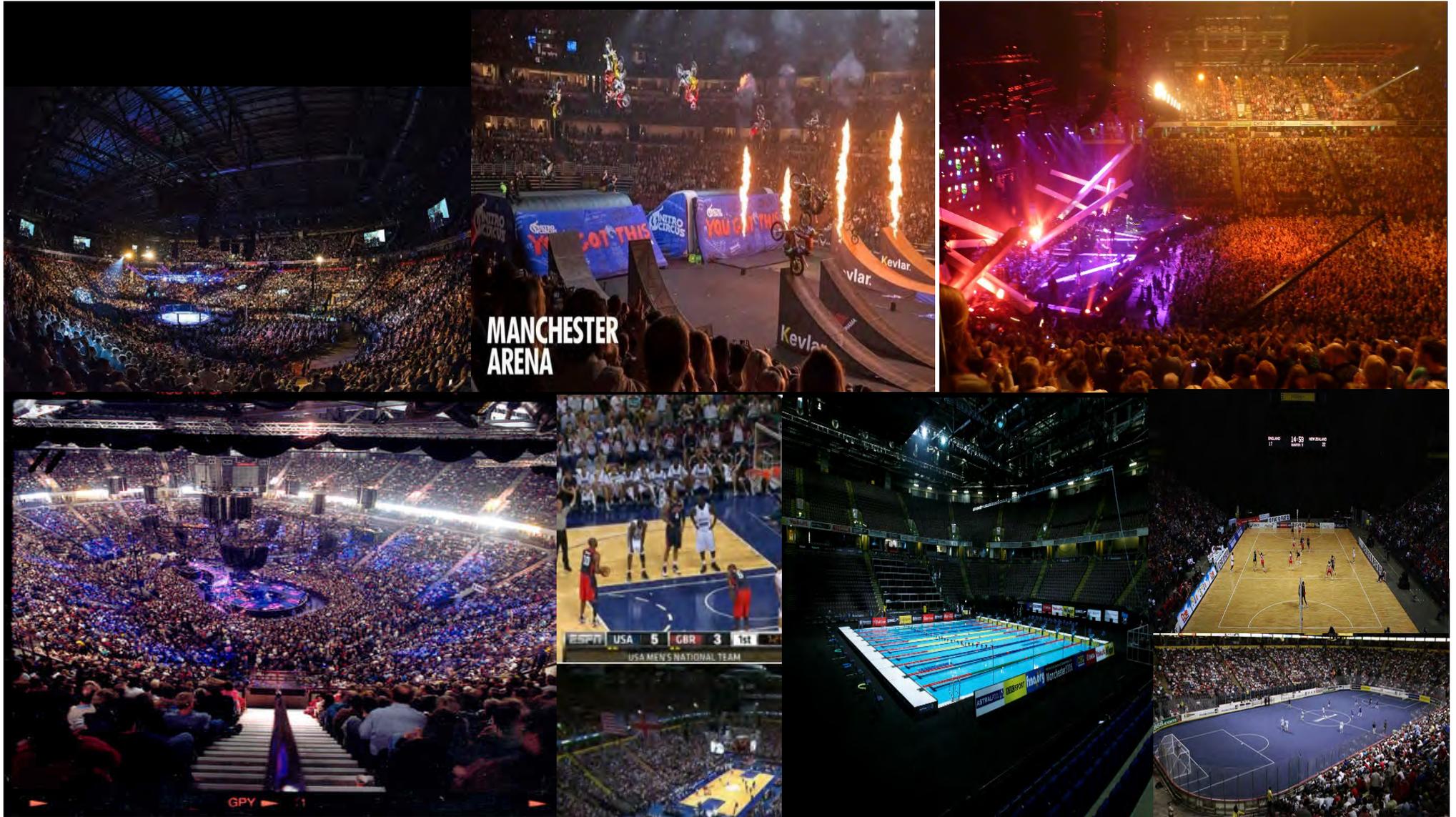
- c) Have a significant detrimental impact on the wider city centre retail, food and beverage outlets through the proposed quantum of commercial space by OVG and the importance MA's role is in under-pinning trade in the wider city centre retail evening economy
 - d) Overall, have a significant detrimental impact on the vitality and viability of the city centre evening economy
- 9.36. In accordance with NPPF paragraph 90, we respectfully request that MCC also refuse planning permission because OVG has failed to satisfy the sequential test and because the proposal will have a significant adverse impact on the city centre vitality and viability and on planned private investment in the city centre.
- 9.37. The proposal does not accord with the statutory development plan as it conflicts with policies which clearly focus investment and major town centre uses on the city centre, also in accordance with national policy in the NPPF.
- 9.38. There are no material considerations which outweigh the conflict with the adopted policy and we respectfully ask that MCC refuse the OVG application on this basis.

Appendix 1

Flexibility of Manchester Arena Layout Options

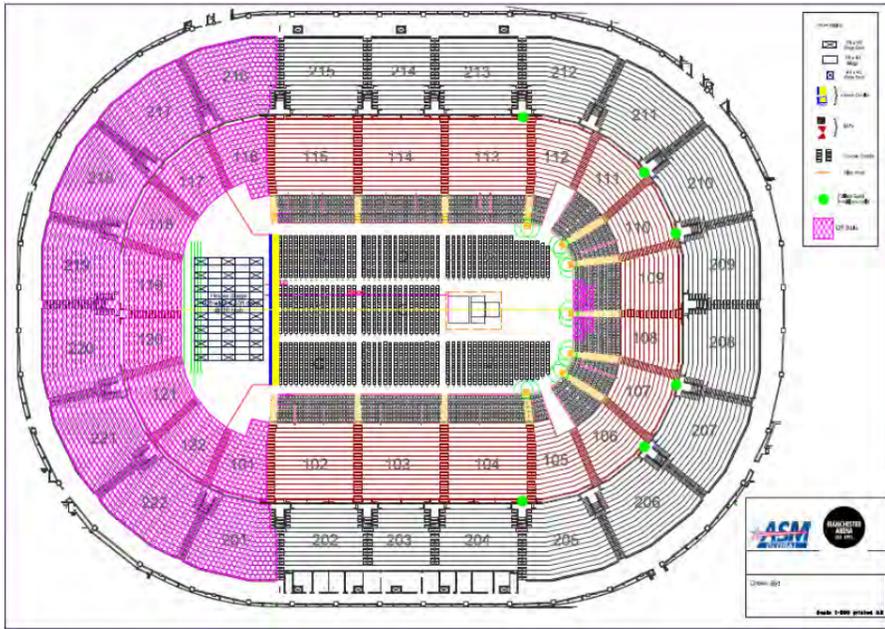
Examples of Event Staged & Layouts used at Manchester Arena

Concerts /Comedy	Sport	Family	Others
Full End Stage Seating , Pavarotti/ Queen/ Rolling Stones / Peter Kay	Taekwondo World Championships 2019	Cirque du Soleil	His Holiness the Dalai Lama
Full End Stage Standing Stereophonics / Noel Gallagher /1975 / Take That	Swimming FINA World Championship 2008 (Two pools)	Disney on Ice, Marvel Live, Walking With Dinosaurs, Batman (World Premier)	Big Screen Sport (Champions League Final Man United vs Chelsea)
Full End Stage 360 Barbara Streisand, Cold Play, Elton John, U2, Young Voices	Boxing (numerous world title fights including, Mike Tyson, Ricky Hatton, Anthony Joshua) Ice Dance/ Ice Hockey (resident team 95 – 01)	Horse Shows (Lipizzaner Stallions) Harry potter Blue Planet Star Wars	Bear Grylls Brain Cox Ant Middleton Sylvester Stallone Question of Sport
Full Standing in the round Drake, Muse, Madonna, Justin Timberlake, Britney Russell Howard, Simply Red	Basketball (National League / NBA - USA Dream Team – WNBA, Harlem Globe Trotters) Skateboarding (LG Worlds)	E Games DanTDM Nitro Circus /Monster Trucks Arena X / Super Bikes KSI- Logan Paul YouTube	Religious Events IBSA Festival of Praise
Other configurations include Reduced, Hall, Short Hall, Lower Tier only (with Draping system), A&B Stages, Gold circles,	Netball - Commonwealth Games 2002, Super league, World super series / UFC/ Darts/ Masters Football / KSI Logan Paul YouTube/ Cross Fit National Finals	Bob the Builder Tweenies Barney the Purple Dinosaur Cbeebies Live	Children in Need MEN Awards TOTP Awards Manchester United Treble Winning Home Coming

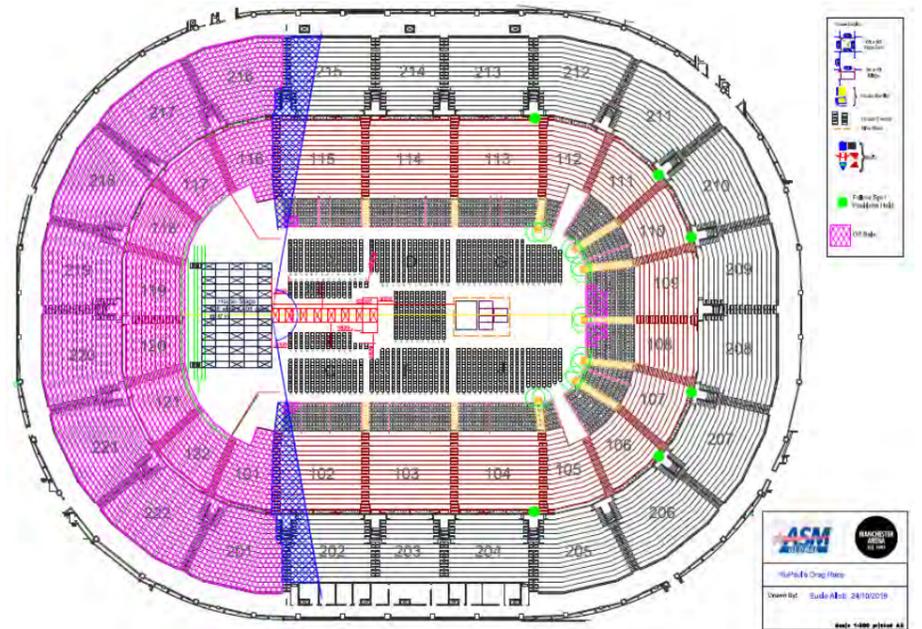


UFC, Nitro Circus, BBC's Children in Need, Netball World Super Series, Master's Football, Fina World Swimming Championships, USA, Dream Team, Simply Red - 360

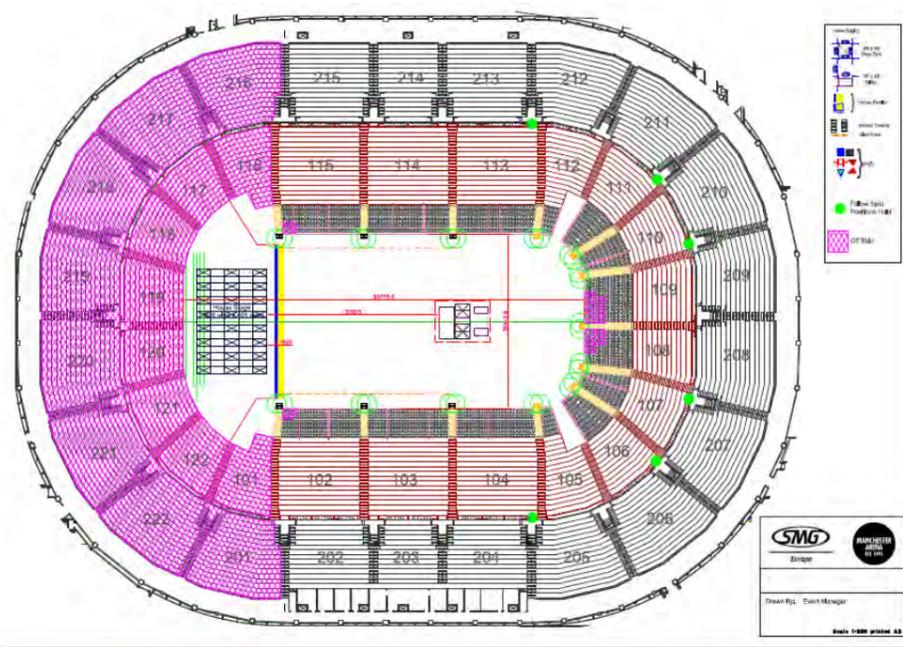
End Stage, Seated 180° Sightline



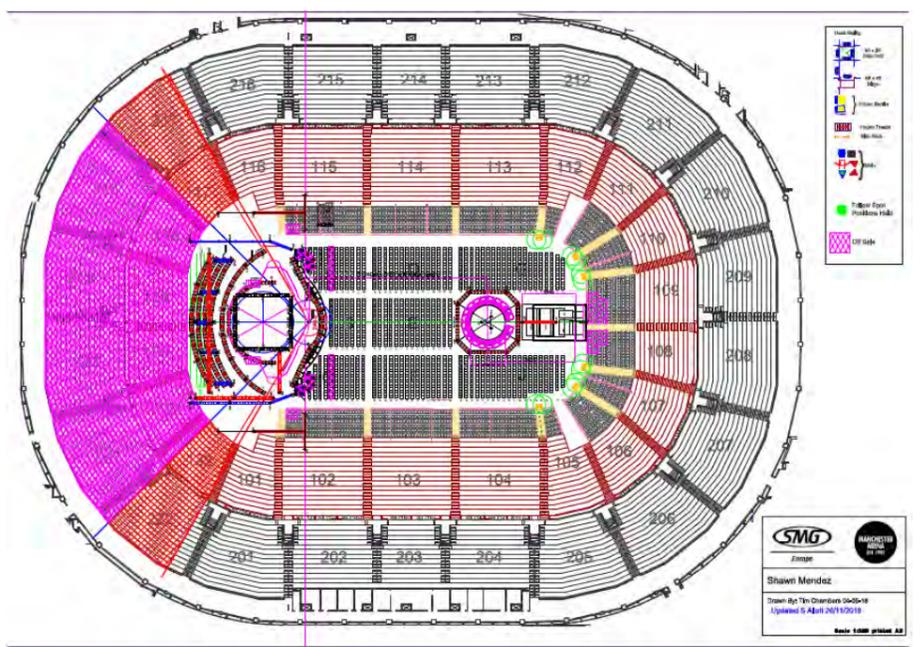
End Stage with thrust, seated, proscenium sightline



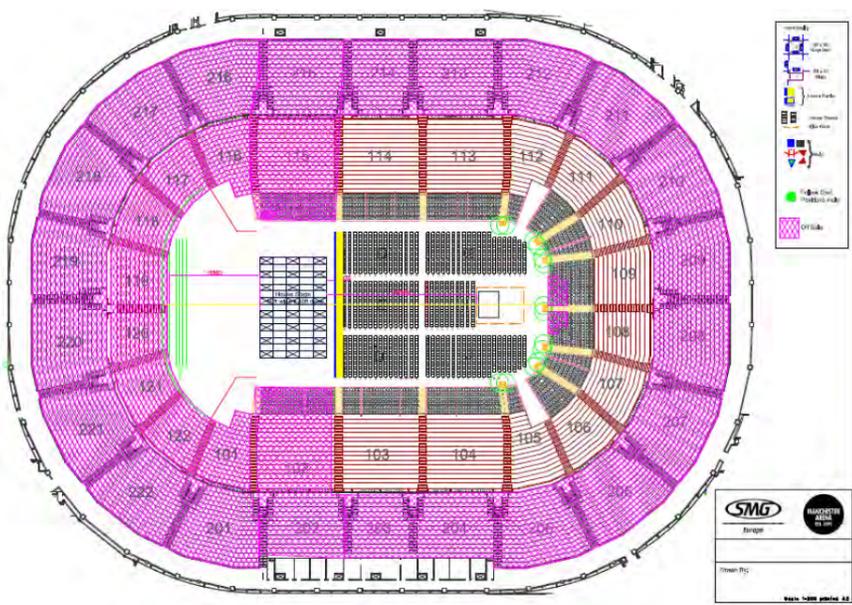
End Stage, Standing 180° Sightline



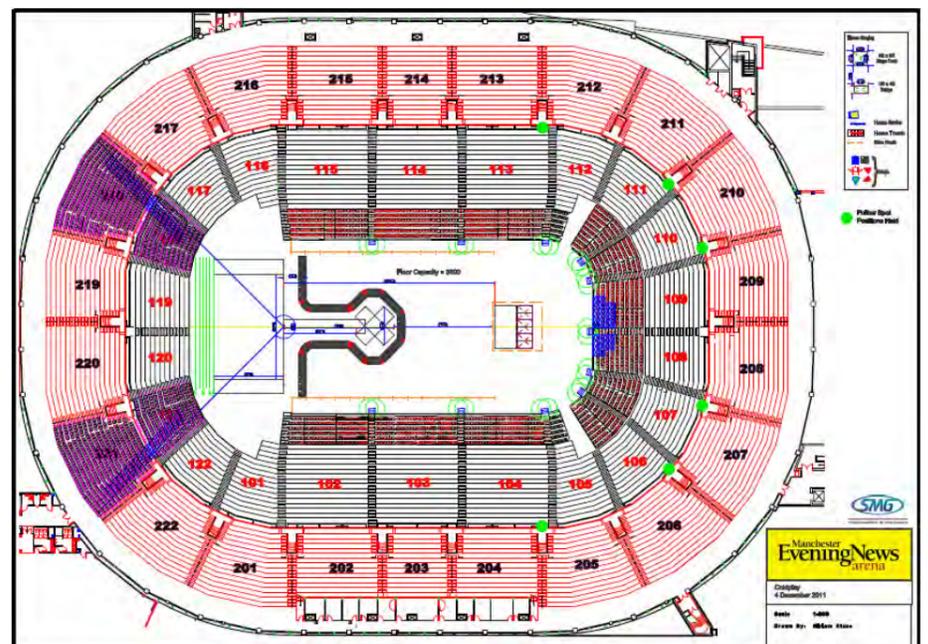
End Stage Large B Stage Seated, 240° and 270° sightline



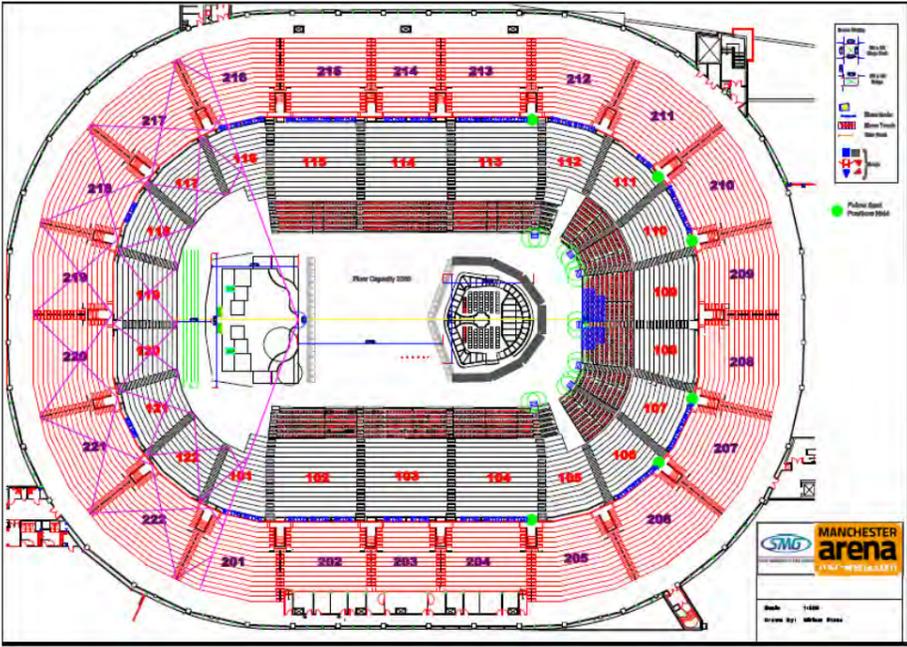
Reduced Hall



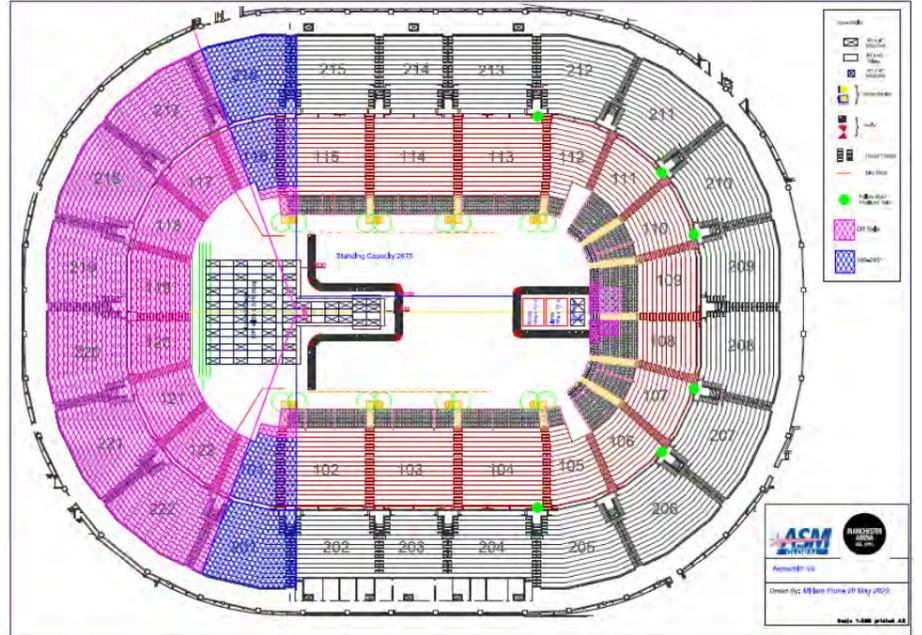
End Stage 360° Sightline



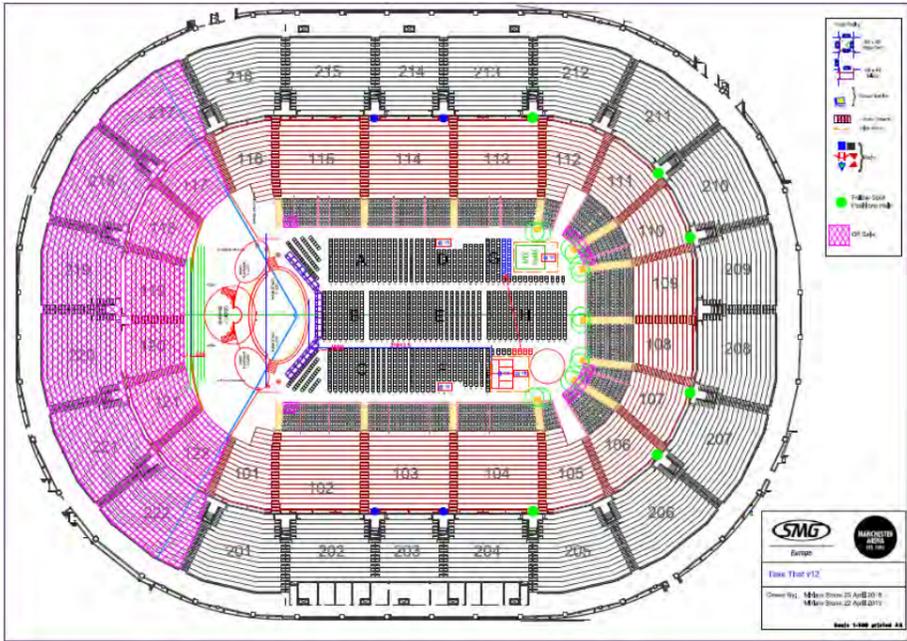
End Stage Large B Stage Standing 220° Sightline



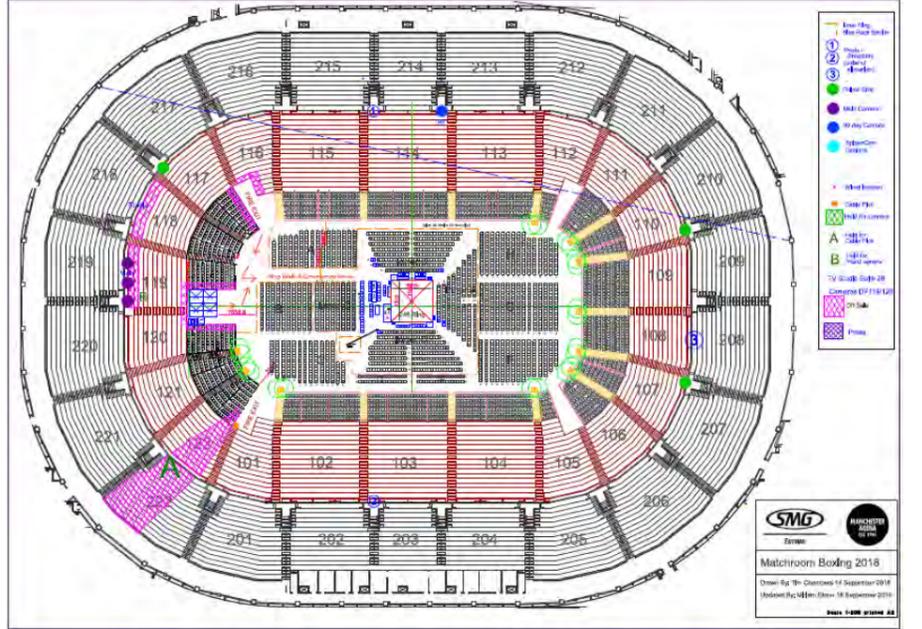
Thrust, Standing Floor (Two rows retracted) 180° and 220° sightline



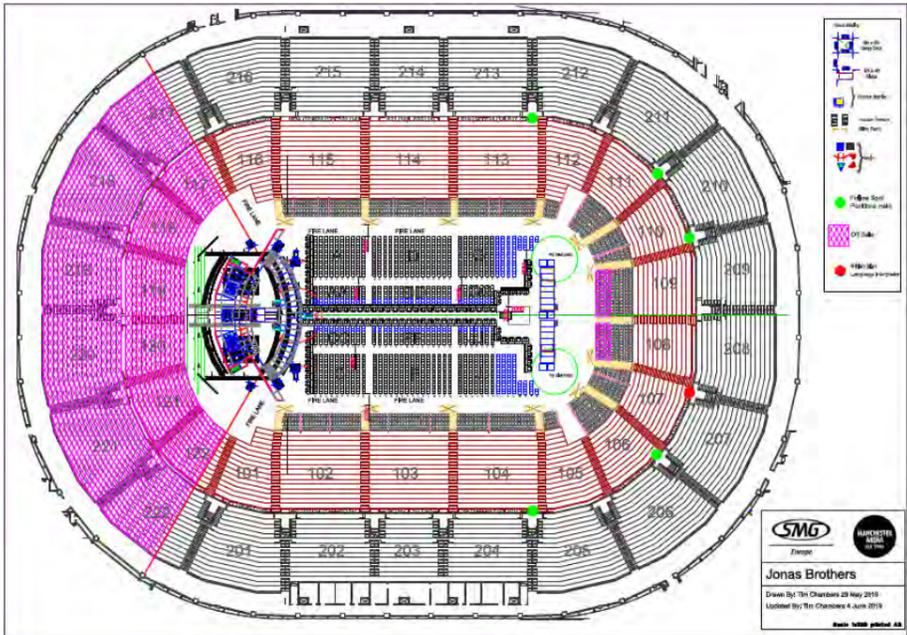
End Stage Seated, B Stage, Split Mix, 240° sightline



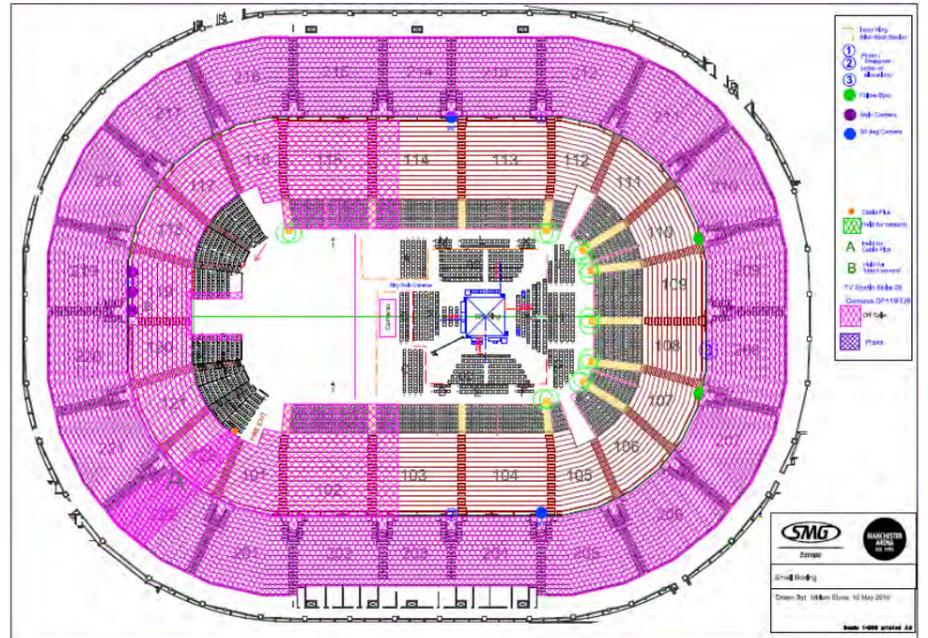
Large Boxing



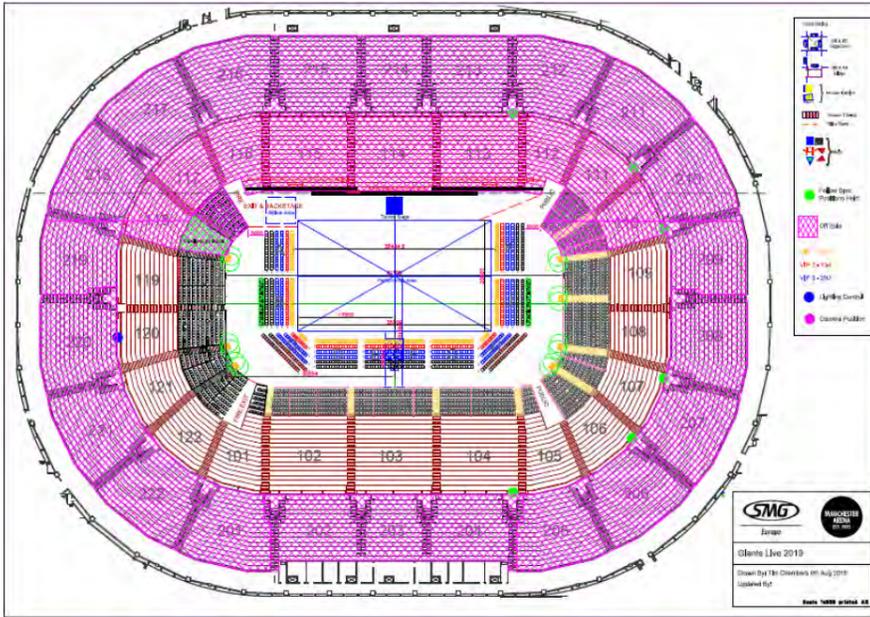
Full Length Split Floor – seated 240° Sightline



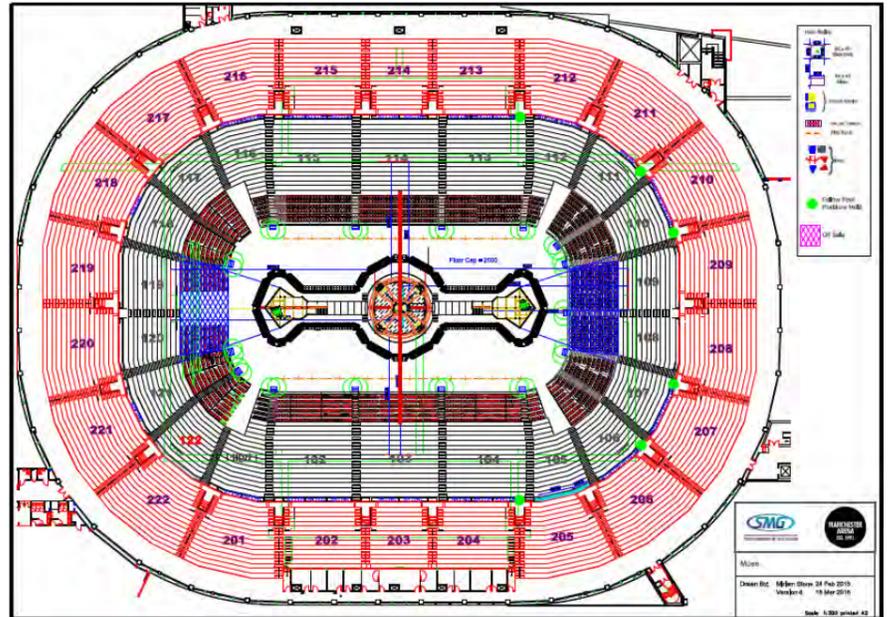
Small Boxing



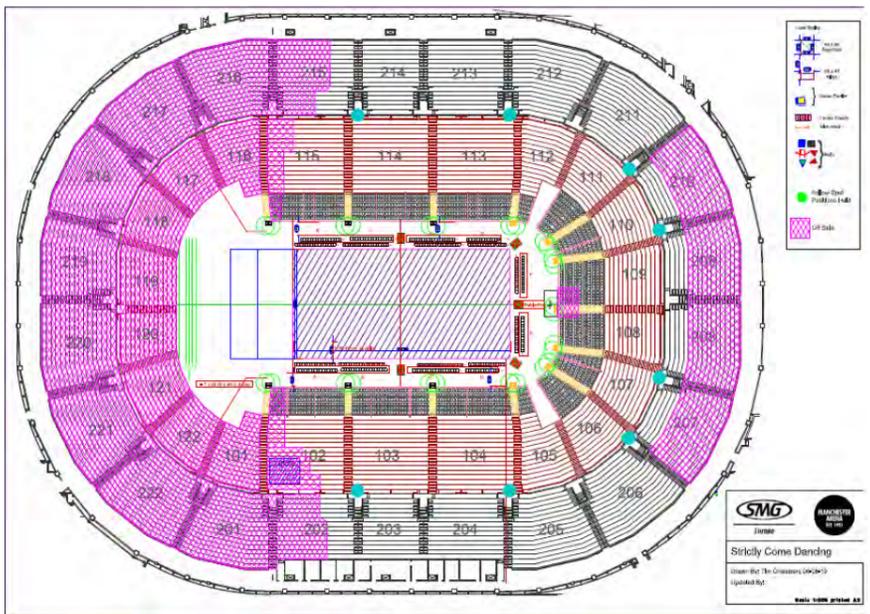
Side stage Family Entertainment



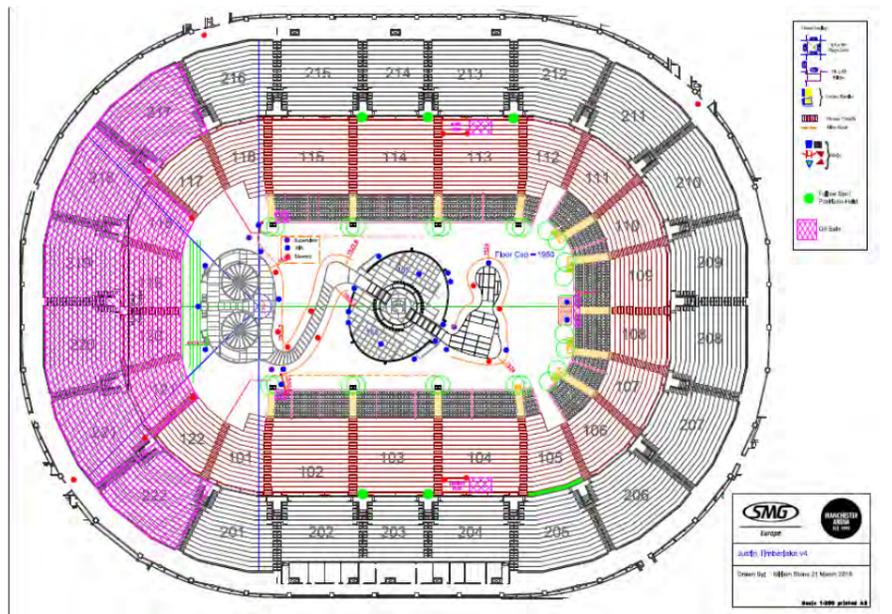
Traverse Stage – Music 360° sightline



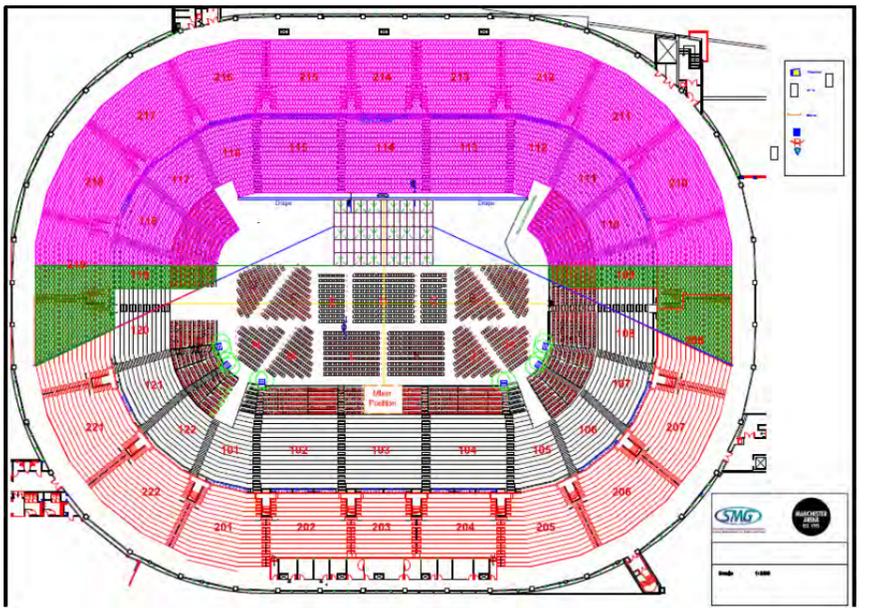
Centre Dance Floor



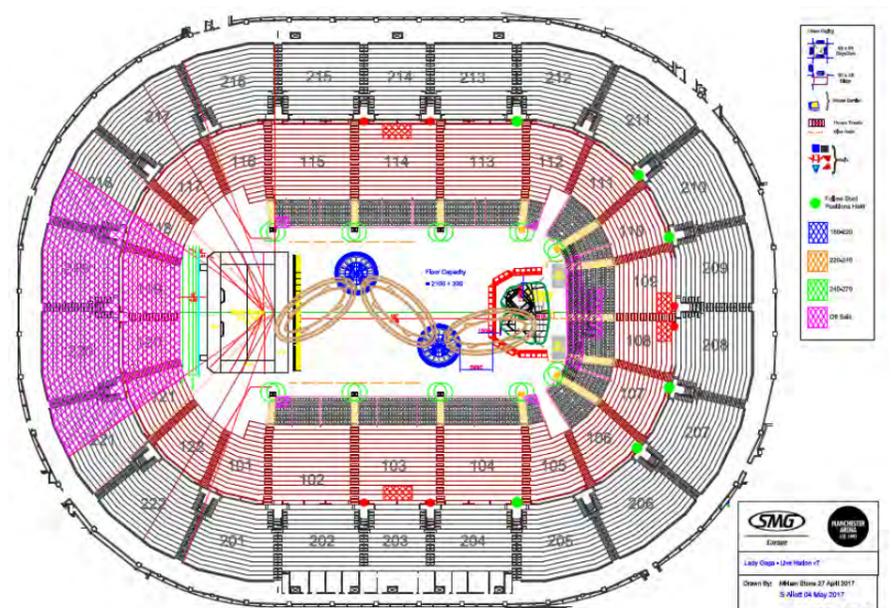
Bespoke Touring Stage, Split upper and lower sightlines



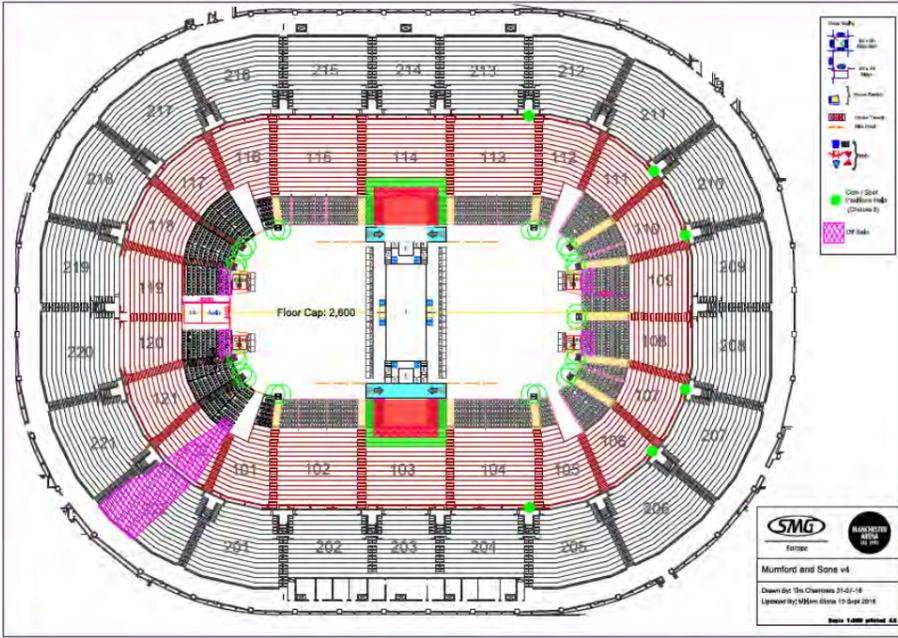
Side Stage Comedy



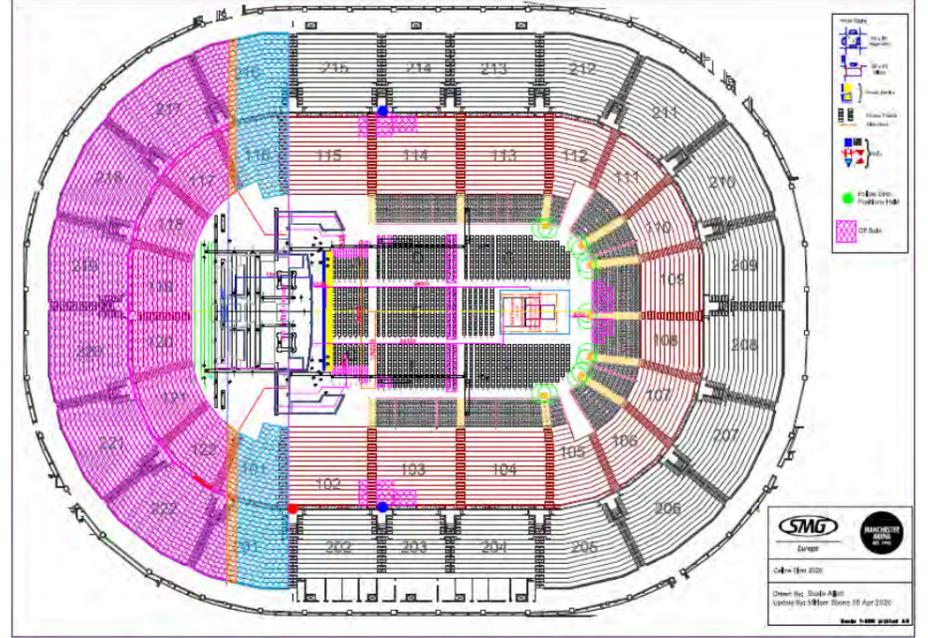
Multiple Stages (flying bridges)



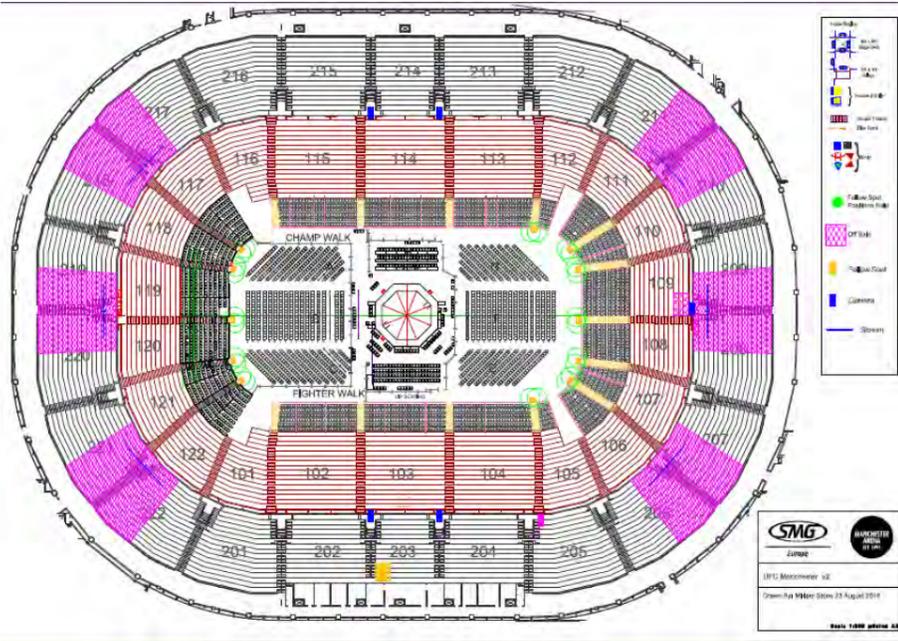
Tailored – stage over seating



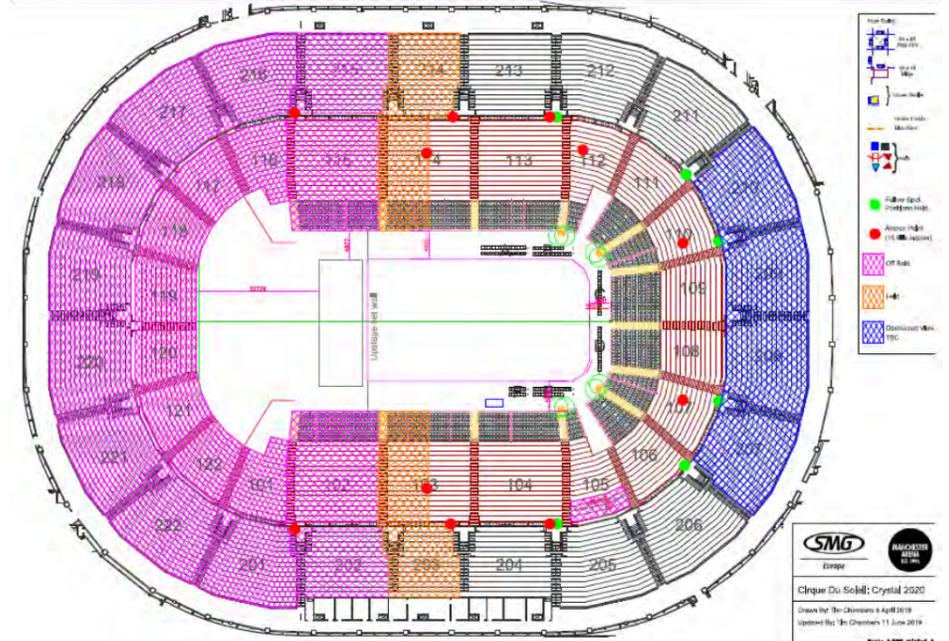
Tailored – seating built around



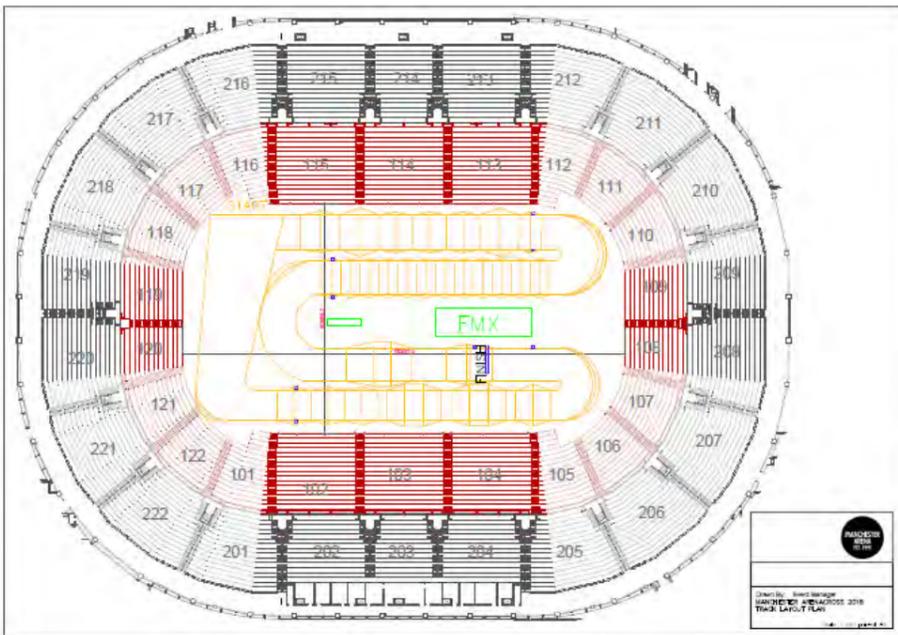
UFC / Cage Fighting



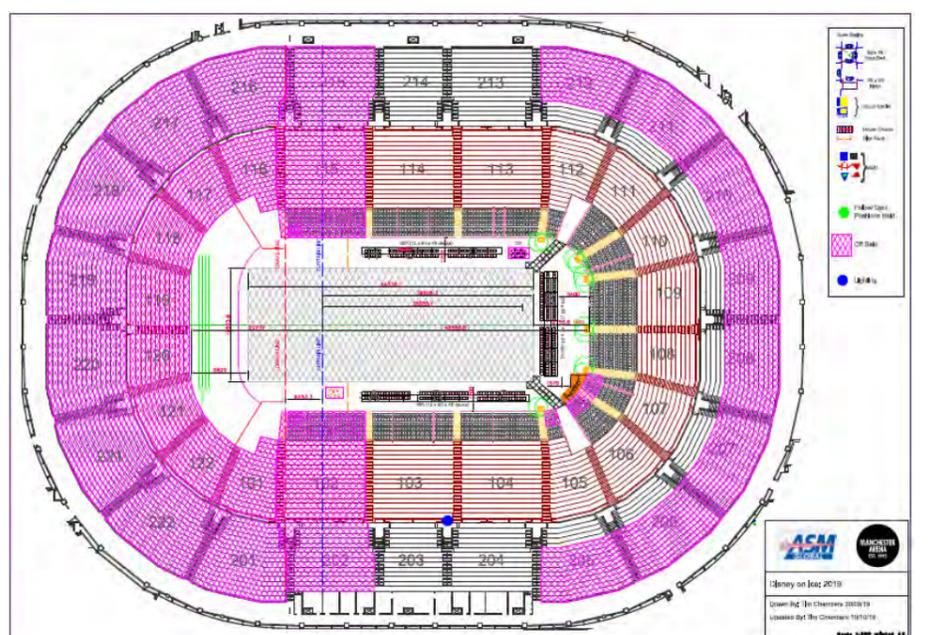
Circus on Ice



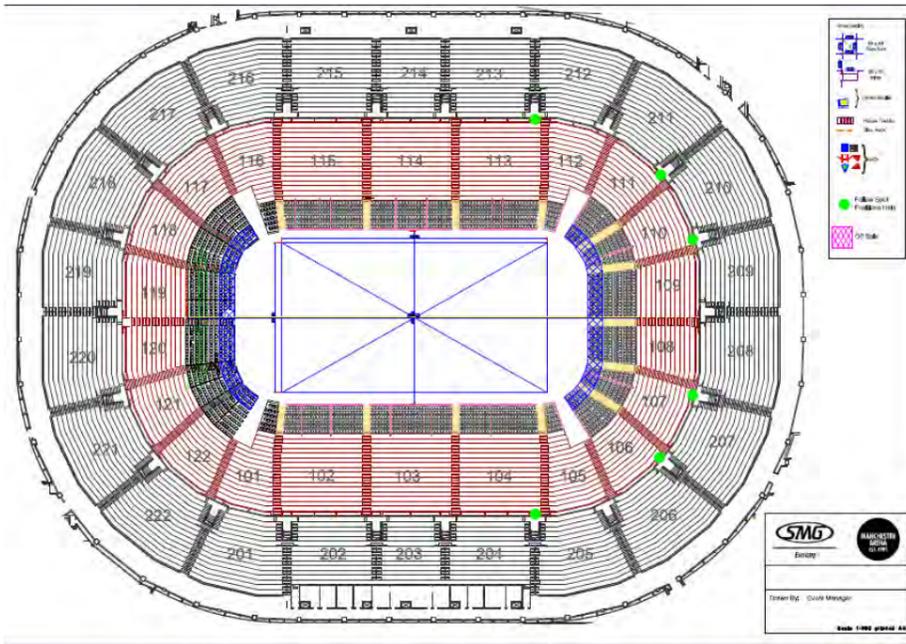
ArenaCross – Motorcycling Dirt Track



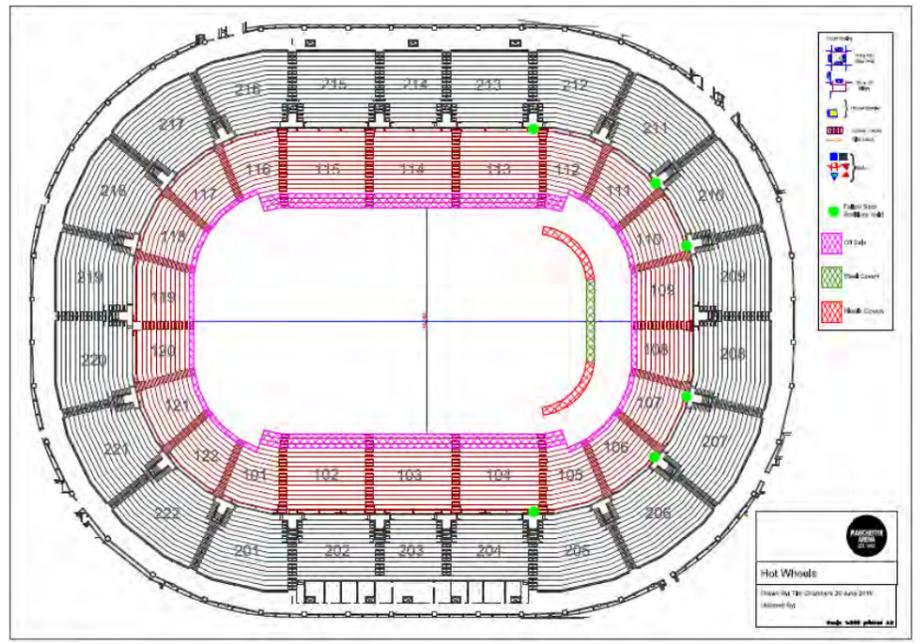
Disney on Ice



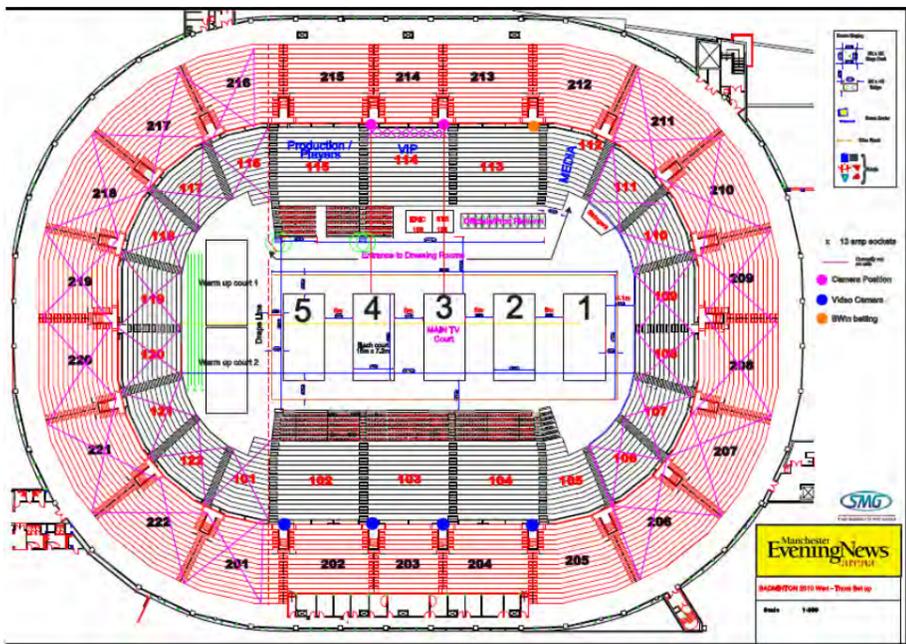
Tennis



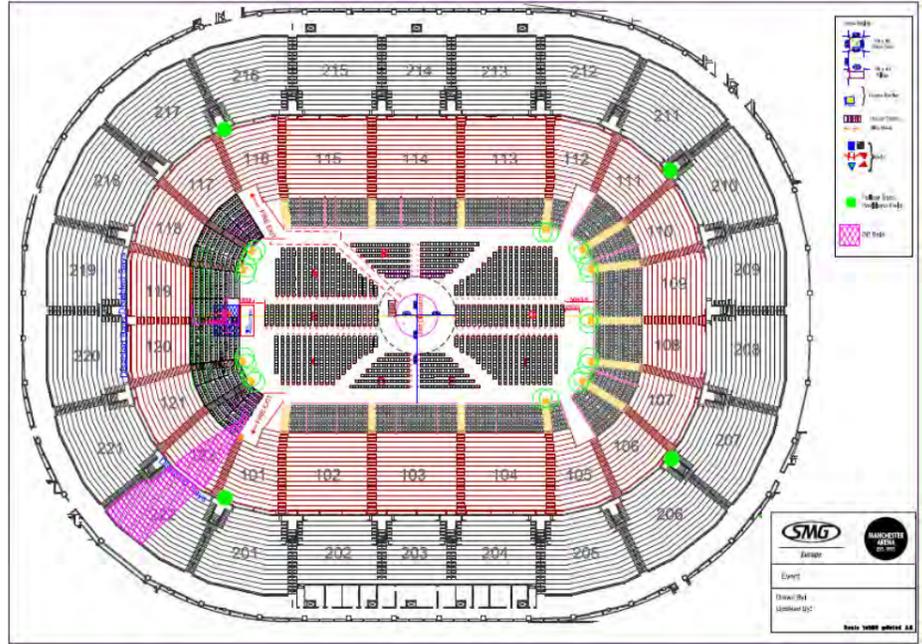
Monster Trucks (Clear Floor, no retracts)



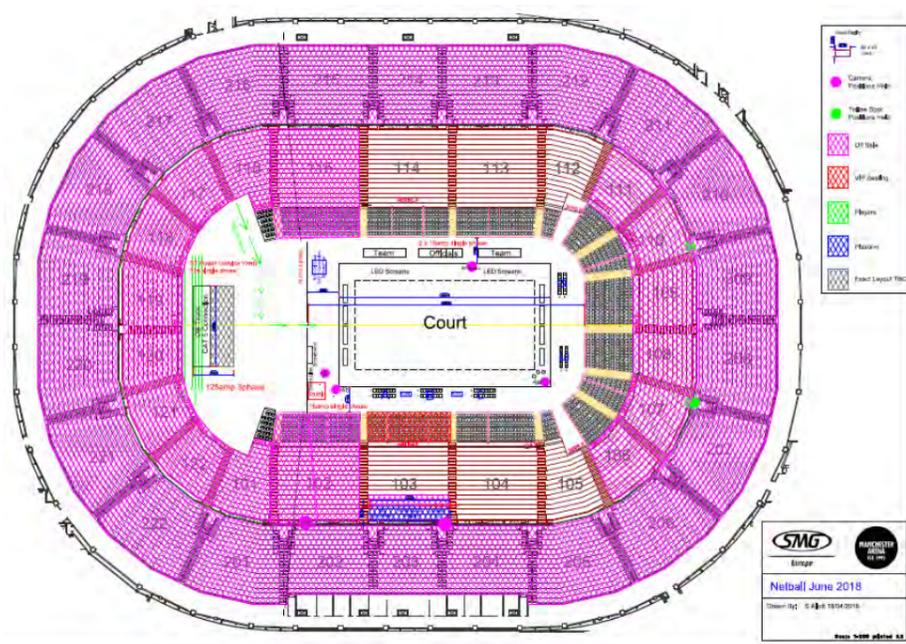
Badminton



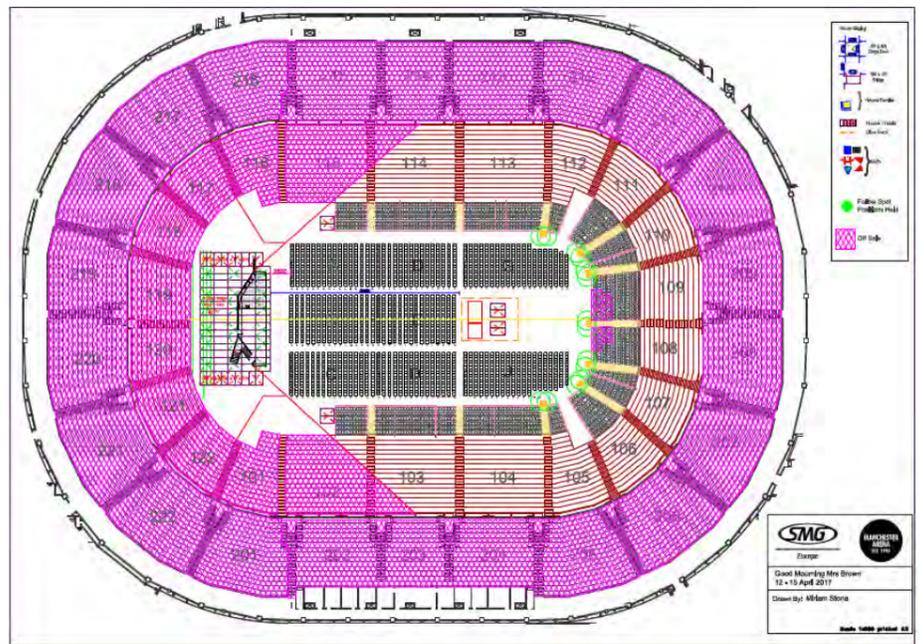
Comedy In-the-Round, 360° Sightline



Netball



'Theatre' or 'Cinema' Proscenium Layout



Appendix 2

Grant Thornton UK LPP Manchester Arena

Economic Impact Assessment 2019

Manchester Arena

Economic Impact Assessment

26 June 2019



Introduction

Grant Thornton UK LLP, working with Oxford Economics, was commissioned to undertake an independent analysis of the economic impact of the Manchester Arena to Manchester and the wider Greater Manchester area.

As part of this work the analysis explored the wider music industry and entertainment market in order to better understand future trends and how this may change the economic contribution made by, and the commercial position of, Manchester Arena.

This report provides a summary of the analysis.

Approach

The analysis undertaken as part of this study was based on four components:

- 1. Visitor survey** – A survey of 1,474 visitors who attended at least one event in 2018. The online survey contained a small number of closed questions designed to understand actual spending patterns based on previous visits to the arena alongside testing perceptions for how spending patterns may change in the future.
- 2. Economic Impact Model** – Working with Oxford Economics a bespoke economic impact model was built. This model estimates the Arena's net economic impact within the Greater Manchester Economy, considering the direct, indirect and induced benefits associated with the Arena itself and the tourism spending it supports. The model also used survey data to robustly assess the additionality associated with the Arena (ie the extent to which spend could be directly associated with the visit to the Arena).
- 3. Secondary data analysis** – Analysis of socio-economic and market specific data drawn from a range of public and private sources including but not limited to the Office of National Statistics, Mintel and Pollstar.
- 4. Primary research** – A small number of semi-structured interviews were undertaken with industry promoters with the explicit purpose of better understanding future trends in the market.

The insight generated was drawn together and synthesised to provide the findings contained within this report.

Key Findings

-  **£120m gross visitor spend**
-  **2,010 jobs supported**
-  **£55.9m GVA contribution to GDP**
-  **Over 90% of visitor spend occurs within the City Centre**
-  **56% of visitors would be less likely to travel into the City Centre if the event was outside of the city centre**
-  **Manchester Arena sells more tickets than the two Birmingham arenas**
-  **Three arenas already within a 60 minute drive time of Manchester Arena**
-  **46% reduction in events would make Manchester Arena loss making**

The market for live entertainment is evolving but Manchester is well served

There is little doubt that the UK live entertainment industry is growing fuelled by more events, higher ticket prices and an increase in music tourism both domestically and internationally. On a regional basis Manchester would appear to consistently be one of the largest markets for live entertainment in the UK, second only to London.

Music tourism is growing...

On a regional basis, London, the North West and Scotland are the largest regions by numbers of music tourists, with the North West and Scotland welcoming over a million each and London over three million¹.

This, coupled with the presence of a strong local market and large population provide Manchester Arena with a strong visitor base.

..But it is not all translating into ticket sales

Looking at ticket sales over a ten year period reveals mixed fortunes.

London has been the biggest market by ticket sales for the vast majority of the past decade, with Manchester consistently sitting second. Amongst the other larger arenas in the UK there has been a constant jostling for third place with increasing competition following the opening of arenas in Liverpool (2008) and Leeds in (2017); which both had a downward impact on event numbers and attendance at Manchester Arena.

In general, however, arena ticket sales have declined. This is in part a result of the cyclical nature of the touring industry. It is also reflective of the increased competition that exists, not just between arenas but with alternative events such as festivals – which have doubled over the past decade and have a particular impact on arena events in the summer months. It is also a reflection of a more cautious consumer environment.

However, looking across a three year average (2015-2017² to account for the cyclical nature of the industry) shows that in terms of tickets sales Manchester has outsold Birmingham and highlights Manchester Arena's ability to successfully navigate the changing market (see table below).

Given that Birmingham is a city with two arenas, this also points to the potential limitations of the market and that an additional venue does not necessarily translate into a material increase in the number of shows or ticket sales.

City	Population	Number of arenas	Ticket sales per annum (3 year average)
London	8,908,081	2	2,015,478
Manchester	2,812,569	1	1,018,221
Birmingham	2,916,458	2	965,705
Leeds	2,320,214	1	500,280
Sheffield	1,402,918	1	398,353
Liverpool	1,551,497	1	238,178

Source: Grant Thornton analysis of Pollstar data and Office for National Statistics (ONS) data. Note: Populations are based on wider city region populations eg Greater Manchester for Manchester, the West Midlands Combined Authority area for Birmingham and Greater London for London.

1 Source: UK Music "Wish you were Here", 2017

2 Source: Pollstar, 2018 data has not been used due to limitations with the Pollstar data for this period.

The market for live entertainment is becoming increasingly competitive but Manchester is well supplied

By looking in detail at the catchment areas of nine large scale arenas across England an interesting picture emerges about the competitive future that exists.

Competition with a 60-minute drive

While attendees will travel to events using different modes of transport and a number will travel in excess of an hour, the 60 minute drive time catchment (see next page) provides valuable insight into the level of competition that exists.

The first observation is the significant overlap that exists between the catchments of the northern arenas (Liverpool, Leeds, Sheffield and Manchester).

The second observation is the variation in the population per arena within these 60 minute catchments (see table below). For Leeds and Manchester there are three arenas within an hours drive. With most others only having one or two.

The result is that the population per arena in both Leeds and Manchester is low: 2.3 million and 2.5 million respectively. Especially when compared to the two London arenas, where the population per arena is much higher at 5.5 million and 6.5 million.

It is a level of competition that is exacerbated if the proposed Eastlands arena is included in the analysis. For Leeds and Manchester this results in 4 arenas within an hours drive and a population per arena of 1.7 million and 1.9 million respectively.

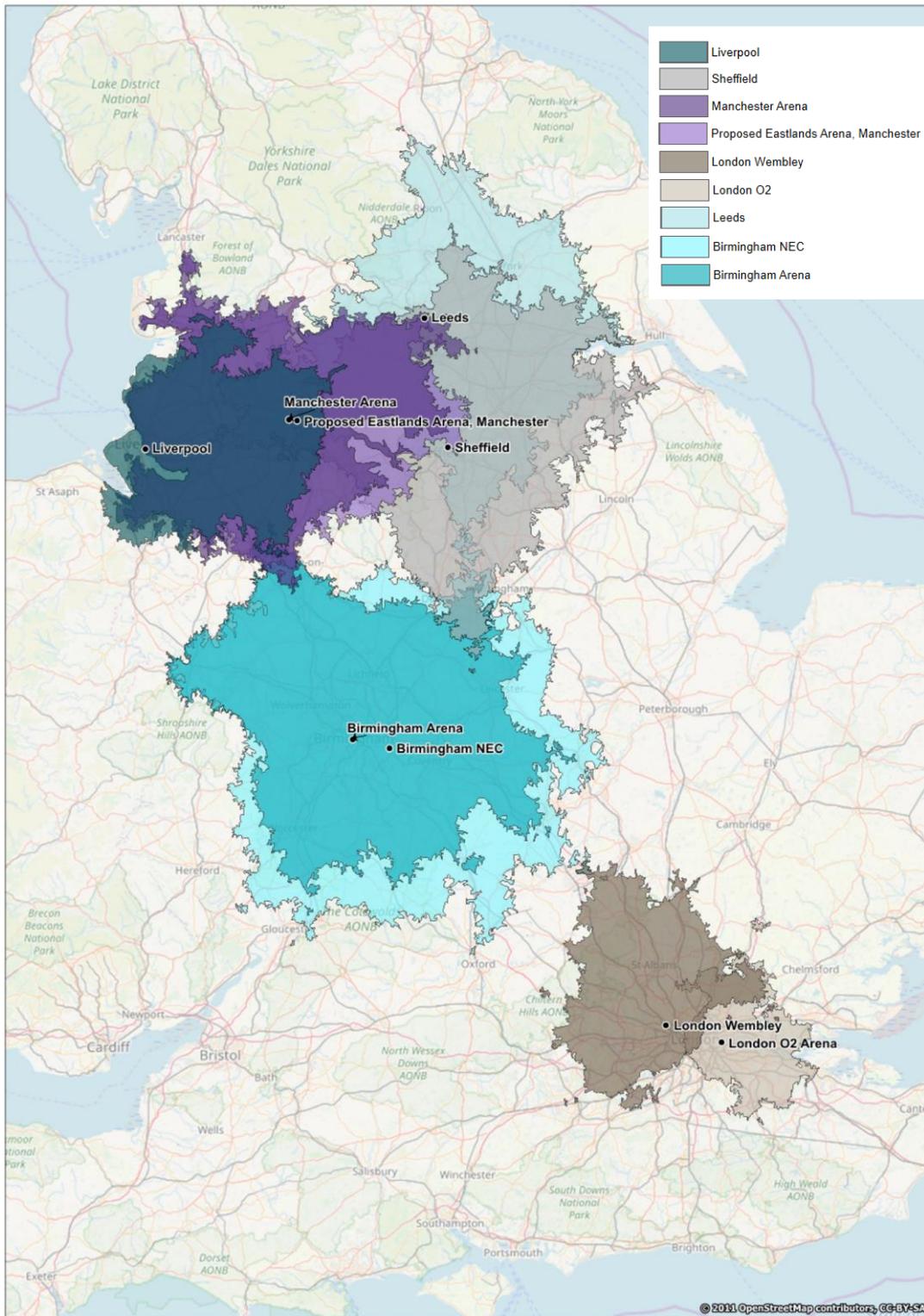
Arena Catchment	Total popn.	Arena capacity	Arenas in catchment (excluding proposed Eastlands Arena)	Popn. per arena (excluding proposed Eastlands Arena)	Arenas in catchment (Including proposed Eastlands Arena)	Popn per arena (Including proposed Eastlands Arena)
Birmingham Arena	6,275,187	15,800	2	3,137,594	2	3,137,594
Birmingham NEC	7,687,271	15,685	2	3,843,636	2	3,843,636
Leeds	6,798,824	13,780	3	2,266,275	4	1,699,706
Liverpool	5,471,767	11,000	2	2,735,884	3	1,823,922
London O2 Arena	5,496,501	20,000	1	5,496,501	1	5,496,501
London Wembley	6,510,602	12,500	1	6,510,602	1	6,510,602
Manchester Arena	7,519,697	21,000	3	2,506,566	4	1,879,924
Proposed Eastlands Arena, Manchester	7,178,744	In excess of 20,000	2	3,589,372	3	2,392,915
Sheffield	5,717,575	13,600	2	2,858,788	2	2,858,788

Source: Grant Thornton analysis of Office for National Statistics (ONS) data, Arena websites and Eastlands Regeneration Framework 2019 Update

Note: This analysis excludes the already announced and committed new venues of Factory and Mayfield Depot in Manchester

The market for live entertainment is becoming increasingly competitive but Manchester is well supplied

Arena 60 minute drive-time catchments



Source: Grant Thornton analysis

It is a change that is identified by those at the heart of the market

By gathering perspectives from a number of the UK's leading concert promoters colour is added to the data analysis and insight is gained around how the industry is evolving and the levels of competition that exist.

An evolving industry

Promoters identified a number of trends affecting the industry

Growth but variety – The live entertainment industry is both growing and becoming more varied. This presents unique opportunities (a wider array of productions) and challenges (bigger and more expensive productions) to the industry

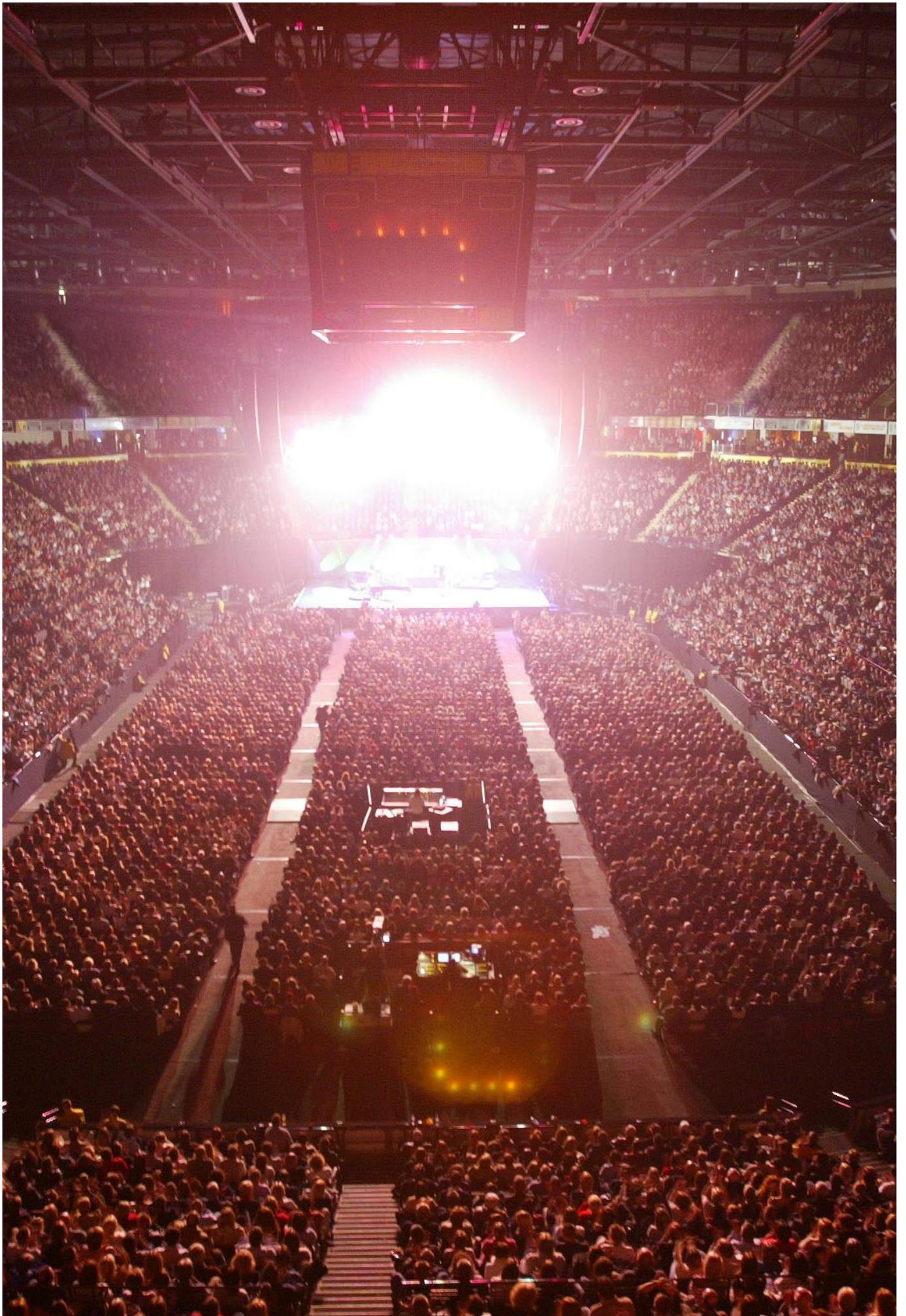
Increasing costs – There has been an increase in ticket prices as a result of both more expensive production and the secondary ticket market showing how much consumers are willing to pay for live experiences. However, there was a strong sense that the industry may be on the verge of overcharging and that increased competition may mean that competing for consumer spend is more difficult.

Virtual reality – As affordability and accessibility to VR improves there may be a shift in consumer behaviour with a “global” tour performed once and streamed worldwide through various VR packages.

A competitive future

The scale of competition is supported by the views of the promoters, as they noted:

- A market that will grow steadily over the next 5-10 years but not exponentially
- Questions over whether there is enough content in Manchester for a second arena to flourish
- Existing capacity within the UK's current offering with specific points made around Manchester Arena being able to provide availability for every show offered
- The growth in the number of shows but a reduction in capacity
- That the increase in shows creates even greater competition to sell tickets – with promoter profitability only coming with the sale of the last 10-15% of tickets
- The need for live entertainment to respond to consumer demand quicker than ever
- The rise of alternative smaller venues
- Increasing competition from other cities (such as Bristol) who want to tap into the market
- The growth in outdoor events and festivals
- A market where it is easier than ever to tour but one with a lack of truly high quality acts that can consistently sell out arena tours



Manchester Arena makes a significant contribution to the vibrancy of Manchester City Centre

Manchester Arena contributes directly to the local economy through both its operational impacts as well as those generated through visitor-related spend that the Arena attracts to the area.

These direct impacts grow as money flows into the local economy through supply chains expenditure and wider consumer spending.

The findings presented below are the 'net economic impacts' and are the additional benefits to Manchester that are directly attributable to Manchester Arena.

Operational and HQ impacts

Through its day to day operations and the presence of the SMG Europe HQ, the Manchester Arena directly sustained 730 direct jobs in the local economy, generating £4.3m in direct earnings and £12.7m in direct GVA contributions to GDP.

After considering supply chain spending and consumer impacts, it is estimated that the Arena supported a total of 890 jobs, £8.1m in wages and £22.9m in GVA contributions to GDP within Greater Manchester.

Visitor related impacts

Gross spend within Greater Manchester by all visitors to the Arena in 2018 was estimated to be £120m. Nearly all (95%, or £114m) of this is estimated to have taken place in the city centre.

Accounting for the fact that many local residents attending events at the Arena may have spent their money in the Greater Manchester area anyway it is possible to calculate a net visitor spend, ie money brought into Manchester as a result of the arena. Net visitor spend was estimated at £45m in 2018, as before nearly all of this was in the city centre (91% or £41.2m).

This net spend is estimated to have sustained 1,120 jobs throughout Greater Manchester, resulting in £19.5m in earnings and a £33m GVA contribution to GDP.



Over 90% of visitor related spend occurs in the city centre

Total net economic impacts

	Jobs	Wages (£2016m)	GVA (£2016m)
Direct	1,590	£17.7	£33.6
Indirect	220	£5.5	£12.3
Induced	210	£4.5	£9.9
Total	2,010	£27.6	£55.9

Source: Oxford Economics, SMG Europe

Supporting a broader, vibrant economy

Through the interviews with promoters it was clear that Manchester Arena supports a broader array of benefits than those that can be quantified by the economic model. These include:

Supporting Manchester's position as a market leader in the entertainment and music industry, often viewed as the UK's second city for music tours after London.

Providing a high quality arena with respondents commenting on the quality of the atmosphere, the physical layout and the event experience for both performers and audience

Building on Manchester's rich music heritage, something that is particularly true for indie and soul.

An arena outside of the City Centre has implications for the City Centre economy

With a proposed new arena outside of the City Centre there are implications for both the city centre economy as it would change visitor behaviours and spend.

Changing behaviours

56% of visitors to Manchester Arena, who were surveyed, said they were less likely to travel into the city centre from an arena outside of the city centre; 30% of these visitors said they were 'much less likely' to travel into the city centre.

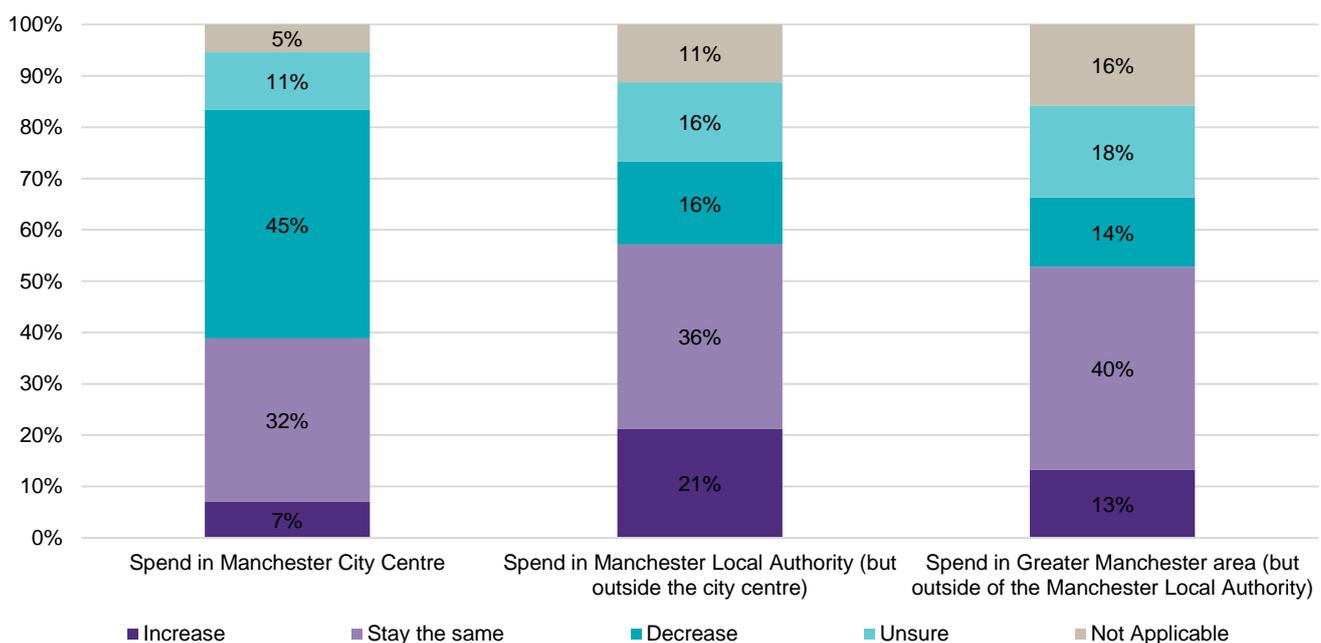
Changing spend

It is a change in behaviour that would also impact on spending patterns with 45% (see graph below) expecting their spend in Manchester City Centre to decrease.

Of those that stated that they would spend less in the city centre, 59% stated they would spend 76-100% less, 14% stated they would spend 51-75% less, 16% stated they would spend 26-50% less and 12% stated they would spend 1-25% less.

Changes of this nature and magnitude would have notable impacts for the city centre and significantly reduce the economic benefits felt in the centre.

How do you think your spend before and after the event would be different compared to your recent visit to the Arena?



Source: Grant Thornton analysis of survey data

An arena outside of the City Centre has implications for Manchester Arena and SMG Europe HQ

Alongside impacts on the city centre economy, changes in the market and the potential impact of losing events have a number of commercial implications for SMG Europe

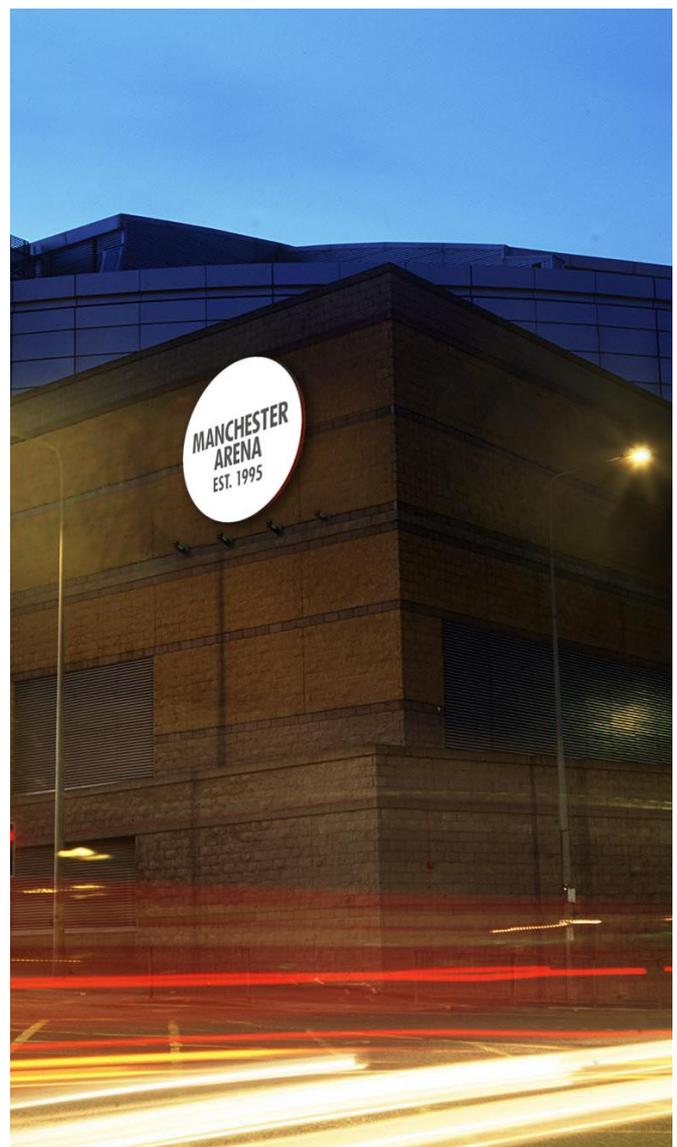
Through a sensitivity analysis of SMG Europe's financial model on the potential impact of the proposed Eastland's Arena development it is clear that any event loss would have a notable impact on Manchester Arena's Earnings Before Interest, Tax, Depreciation and Amortisation (EBITDA).

In headline terms, this analysis showed that a 45% loss in events would result in a 100% reduction in EBITDA and calls in to question the longer term viability of the arena. This means that a 46% reduction in events would see Manchester Arena become loss making.

Even a 25% reduction in events would see EBITDA reduce by 69%.

A reduction in events would also have an impact on other commercial aspects of the operation such as the viability of rent commitments.

These commercial implications would also have a knock-on impact for the ongoing establishment of the SMG European headquarters in Manchester.



Disclaimer

This document has been prepared for purposes of providing a summary of our analysis to SMG Europe Holdings Limited (SMG Europe) in relation to understanding the contribution and benefit of the Arena to the Manchester economy and how this may change in the future. This document is prepared for SMG Europe only. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than SMG Europe for our work or this document or for any opinions we have formed. We do not accept any responsibility for any loss or damages arising out of the use of this document by any third party.

The following have been provided by third parties: 1) data used and incorporated into this document; and 2) SMG Europe's financial model (referred to on page 6 of this document). We will not verify the accuracy or completeness of any such data nor have we carried out an audit or any independent testing procedures on SMG Europe's model, the model assumptions or the model outputs. There may therefore be errors in such data and model which could impact on the content of this document. No warranty or representation as to the accuracy or completeness of any such data, the model or its assumptions or outputs or of the content of the document relating to such data, the model or outputs is given nor can any responsibility be accepted for any loss arising therefrom. Responsibility for SMG Europe's financial model shall remain solely with SMG Europe.

The responsibility for financial data and the assumptions on which they are based is solely that of the management of SMG Europe. It must be emphasised that financial analysis necessarily depends on subjective judgement. They are, to a greater or lesser extent, according to the nature of the businesses and the period covered by the forecasts, subject to inherent uncertainties. In consequence, they are not capable of being audited or substantiated in the same way as financial statements which present the results of completed accounting periods.



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Appendix 3

ASM Planned Investment in Manchester Arena



Masterplan Key Districts

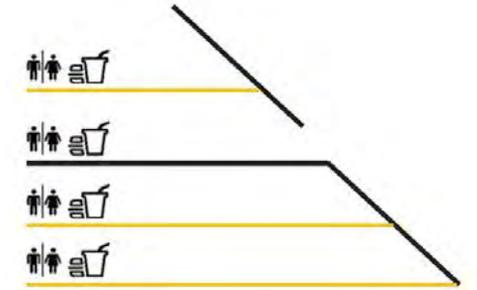
New Arrival Experiences
New Concourse & Greater Circulation
More Diverse VIP Experience
Enhanced Event Floor Capacity
Enhanced Sustainability
New Community Initiatives
Improved External Appearance



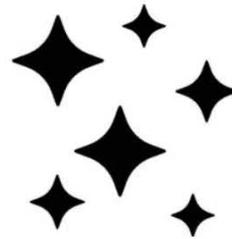
Increase Floor Capacity



Enhance VIP Experience



Distribute Capacity with new Concourses



Improve External Appearance



Enhance VIP Capacity



Improve Internal Appearance

The Brief Key Drivers



New Concourses The Vision



Enhanced Interiors The Vision



- Stress buster drum circles
- Musically responsive mindfulness sessions
- Music therapist lead quality mum and baby/toddler music sessions
- Music and motor skills for early years
- Community choir
- Youth projects with different streams
- Individual sessions for mums with postnatal depression
- Lunch hour music sessions in the coffee house
- Accessible open mic nights with alcohol-free booze
- Space for away days for businesses
- Bring a track share a story, groups
- Traditional music therapy
- Sessions where different art therapies join up





Thankyou

Appendix 4

Correspondence relating to withdrawn 2020

Eastlands Regeneration Framework Update

Mr E Smith
Strategic Director Growth & Development
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RJB/151

your reference:

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Partners:
Simon Baker
Russell Beard
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John Skelly

BY POST AND EMAIL: e.smith@manchester.gov.uk

7 May 2020

Dear Sir

Our client: SMG Europe Holdings Limited ("SMG")
The purported Supplementary Planning Document ("SPD") known as the Eastlands Regeneration Framework: A 2019 Update (as amended and approved) ("ERF")

1. We are instructed by SMG in relation to the decision to adopt the ERF.
2. This is a formal letter of claim in accordance with the Pre-Action Protocol for Judicial Review under the Civil Procedure Rules.

Parties

3. The proposed claimant is SMG. SMG has a sufficient interest by virtue of its standing as the operator of the existing circa 21,000 capacity arena in Manchester, which drives significant business to other hospitality and retail businesses within Manchester City Centre, and which stands to suffer significant damage to its own business as a consequence of a grant of planning permission for a new arena at Eastlands. Any decision to grant planning permission will take into account as a material planning consideration the ERF by reason of it being an SPD. Moreover, the ERF is intended to provide a framework for decision making in respect of planning applications in the subject area.
4. The proposed defendant is Manchester City Council ("**MCC**").
5. SMG identifies the organisation set out in the schedule to this letter as a potentially interested party to whom a copy of this letter is being sent.

Background

6. A report of the Chief Executive of MCC dated 13 December 2017 ("**13.12.17 Report**") sought approval of the Eastlands Regeneration Framework Final November 2017 ("**ERF 2017**"). The Executive approved the ERF 2017 on 13 December 2017 noting the

intention that it be, "a material consideration in the Council's decision making as a Local Planning Authority."

7. The ERF 2017 outlines, in broad terms, a vision to develop, "a globally competitive sport, leisure and recreation economic cluster", at the Etihad campus.
8. A report of the Chief Executive of MCC dated 13 March 2019 ("**13.03.19 Report**") sought support for the first draft of the ERF and endorsement from the Executive to consult on the proposals set out in it.
9. For the first time, the 13.03.19 Report highlighted an, "opportunity for a new large indoor arena (with a capacity in excess of 20,000)" (paragraph 4.4). The ERF 2017 made no reference to such an opportunity then being under consideration or within its scope.
10. The 13.03.2019 Report states as follows:
 - a. "Subject to the comments of, and the endorsement of, Executive it is intended that this Framework will be the subject of consultation with residents, businesses, landowners and other stakeholders who are affected by the proposals set out in the framework" (paragraph 1.7);
 - b. "This draft Eastlands Strategic Framework has been prepared to guide development and investment activity in the area, and subject to the outcome of the public consultation exercise, will provide the essential robust framework to enable planning applications to be determined" (paragraph 6.1);
 - c. "If the [draft ERF] is approved by the City Council, it will become a material consideration for the Council as Local Planning Authority" (paragraph 8.3).
11. On 13 March 2019, the Executive endorsed the draft ERF as a basis for a public consultation exercise and requested the Chief Executive undertake a public consultation exercise on the draft ERF.
12. A public consultation ran from 31 May 2019 to 26 June 2019 on the draft ERF ("**Consultation Draft ERF**"). A report of the Strategic Director (Development) of MCC dated 18 July 2019 ("**18.07.19 Report**") confirms the localised extent of the public consultation (paragraph 2.2).
13. In response to the Consultation Draft ERF, SMG submitted representations dated June 2019 to MCC through its planning consultants P4 Planning. Those representations noted that the Consultation Draft ERF, although not described as an SPD, was being used as if it was an SPD and that was, "an SPD in all but name" (paragraph 3.2).
14. In direct response to those objections, the 18.07.19 Report states:
 - a. "A strategic regeneration framework, such as the Eastland's Regeneration Framework (ERF), sets out the broad vision for the regeneration of an area. It is not a planning policy document and it is not a site allocations document, nor is

it a supplementary planning document (which would add further detail to the development plan). The draft ERF is a statement of ambition reflecting opportunities stimulated by market demand which if approved will become a material factor in the determination of any subsequent planning applications that fall within its scope.” (paragraph 5.14)

- b. “In light of this the draft Eastlands Regeneration Framework has not undergone a formal statutory consultation although it has been developed through a series of consultations with key stakeholders as outlined in Section 2. Although it does not have the status of planning policy, if it is approved it would be a material consideration in the determination of subsequent planning applications that fall within its scope.” (paragraph 5.15)
- c. “In addition, the ERF is not a Supplementary Planning Document (SPD) or any other form of planning policy document and it will not be adopted by the Council as such. Specifically, the Introduction to the Framework will now be amended to state that:

“This Framework should not be considered or viewed as planning policy. It represents an opportunities paper, which has been the subject of public consultation and scrutiny. It provides guidance on key issues that will need to be addressed and which will be considered by the City Council when planning applications come forward within the Eastlands Regeneration Framework Area.” (paragraph 5.24)

- 15. The 18.07.19 Report also states, “Once approved, the framework will become a material consideration for the Council as Local Planning Authority.” (paragraph 8.3)
- 16. The 18.07.19 Report recommended the Executive:
 - a. approve suggested amendments set out in sections 3 to 5 of the report arising from the consultation; and
 - b. delegate the decision to approve the final version of the ERF the Strategic Director – Growth & Development, in consultation with the Leader of the Council and the Executive Member for Housing & Regeneration.
- 17. On 24 July 2019, the Executive approved limited suggested amendments to the Consultation Draft ERF contained in sections 3 to 5 of the 18.07.19 Report and delegated authority to approve the final version of the ERF to the Strategic Director – Growth & Development, in consultation with the Leader of the Council and the Executive Member for Housing & Regeneration, with the intention that, if approved, it will become a material consideration in MCC’s decision making as local planning authority.
- 18. By letters dated 25 July 2019 and 12 August 2019 and an email dated 3 March 2020 (copies enclosed) addressed to Mr E Smith, Strategic Director – Growth & Development

("Mr Smith"), SMG requested that it be informed immediately following any decision to approve the ERF.

19. By an email dated 12 April 2020, Mr Smith notified SMG that, "I have now had an indication from the relevant Executive Members and the revised Framework is now approved". That email did not identify the date the ERF was approved. It attached a copy of the ERF as approved ("**the Approved ERF**"). SMG takes 12 April 2020 as the date of the decision to approve the Approved ERF.
20. The Approved ERF has been substantially amended from the Consultation Draft ERF considered by the Executive. The amendments go substantially beyond the limited amendments proposed in sections 3 to 5 of the 18.07.19 Report approved by the Executive. Notably, the amendment proposed at paragraph 5.24 of the 18.07.19 Report (above) is not reflected in the Approved ERF.
21. Instead, entirely contrary to the position stated in the 18.07.19 Report, the foreword to the Approved ERF states:

"A question raised in the consultation exercise was the status of the Eastlands Regeneration Framework and whether or not it would be a Supplementary Planning Document (SPD). For clarification the Eastlands Regeneration Framework sets out environmental, social, design and economic objectives which are relevant to the attainment of the regeneration of the East Manchester area which is supported by existing planning policy. It is not a planning policy document and it is not a site allocations document., Once adopted it will be an Supplementary Planning Document (SPD). As such this document has the status of a "Local Development Document" but not a "Development Plan Document".

In summary, this Framework should not be considered or viewed as planning policy. It has been the subject of public consultation and scrutiny. It provides guidance on environmental, social, design and economic objectives within the Eastlands Regeneration Framework area. It does not set out a series of tests to be passed. The role of the Framework is to seek to guide the content of planning applications so that they have in mind the objectives set out in this Supplementary Planning Document (SPD)."

22. By an email dated 16 April 2020:
 - a. SMG asked Mr Smith to confirm who approved the ERF and on what date;
 - b. Mr Smith responded to confirm only that, "The delegation was to me in consultation with the Leader of the Council and the Executive Member for Housing and Regeneration." He omitted to identify the date on which it was approved.
23. By an email dated 22 April 2020 addressed to Mr Smith, SMG invited MCC to accept that the ERF had not been lawfully adopted on the grounds addressed more fully below.

The email gave fourteen days for a response, failing which a pre-action protocol letter of claim would be sent on SMG's behalf.

24. At the date of this letter of claim:
 - a. SMG has received no response to that email;
 - b. there is no obvious indication on MCC's website that the Approved ERF has been approved and no copy of the Approved ERF is available on that website;
 - c. the supplementary planning documents page of MCC's website makes no mention of the Approved ERF.

Decision subject to challenge and grounds

25. SMG seeks to quash the decision to approve the Approved ERF ("**the Decision**") on the grounds set out below. In essence, SMG's case is that the Decision was unlawful on each of five grounds.
26. In grounds 1-4, references to regulations are to the Town and Country Planning (Local Planning) (England) Regulations 2012 ("**2012 Regulations**").
27. Grounds 1-4 concern MCC's failure to comply with both the 2012 Regulations, which set out the procedural requirements for the adoption of SPDs, and its own Planning & Development Statement of Community Involvement adopted on 11 June 2018 ("**SCI**").
28. The significant failures identified in grounds 1-4 are, perhaps, unsurprising in circumstances where, even after the consultation on the Consultation Draft ERF, MCC's clear position stated in the 18.07.19 Report was that the ERF was not an SPD and that report acknowledges, "the draft Eastlands Regeneration Framework has not undergone a formal statutory consultation". That report appears to accept that the requisite procedures for the adoption of SPDs were not followed, no doubt because it is only after that consultation that MCC has accepted that the status of the ERF is an SPD.

Ground 1: failure to undertake the (at least) two stage consultation process for SPDs

29. The 2012 Regulations provide that for SPDs there is at least a two-stage consultation process:
 - a. The first stage is that the local planning authority ("**LPA**") must consult in the preparation of the SPD (regulation 12(a)(i)).
 - b. In response to that consultation, the LPA will receive representations. It must then prepare a statement ("**Consultation Statement**") setting out (i) the persons the LPA consulted when preparing the SPD; (ii) a summary of the main issues raised; and (iii) how those issues have been addressed in the SPD (regulation 12(a)).

- c. There is then a second consultation. Regulation 13 provides that any person may make representations about an SPD. For the purpose of seeking representations under regulation 13, pursuant to Regulation 12(b), the LPA must make copies of the Consultation Statement and the SPD available in accordance with regulation 35 together with details of (i) the date by which representations must be made, which must not be less than 4 weeks from the date the LPA complies with regulation 12(b) and (ii) the address to which they must be sent.
30. The SCI states that, "Consultation on planning policy documents... will be carried out in line with this SCI".
31. The SCI identifies the need for a two-stage consultation process. It states:
- "We produce Supplementary Planning Documents when necessary to provide more detailed guidance on particular issues, building on from the policies in a Local Plan. As these are not Local Plans themselves they are not subject to independent examination but there are still two separate consultation stages." (paragraph 5.1)
32. The SCI identifies those consultation stages in terms of (i) an initial preparation stage and (ii) a formal consultation stage. It defines the following conditions for each stage:
- "Initial preparation stage**
- We will use a range of engagement methods to involve you at this early stage, depending on the scope of the Supplementary Planning Document (SPD) being prepared. For example consultation on a SPD covering a limited geographic area could include workshops and meetings for people in that area; for a SPD covering a larger area but focused on a specific topic it could be more appropriate to consult groups with a specific interest in that issue.
- We will summarise the issues which you have raised at this stage and will then set out how these have been addressed in the draft SPD.
- Formal consultation stage**
- The formal consultation period for a SPD lasts for at least 4 weeks but in practice this will often be for longer. During this time we will make copies of the draft SPD and the summary of comments referred to above available at Central Library and on our website and will provide details of how people can comment on the SPD. We will notify stakeholders on the Planning Policy database and the Duty to Co-operate bodies (see chapter 4) providing them with details of the consultation, and will ask the Council's neighbourhood officers to circulate information about the consultation to groups in their areas. We will advertise the consultation on the Manchester voluntary and community sector support organisation's website (www.macc.org.uk).
- We will also use other appropriate engagement methods including social media to ensure everyone is kept up to date with progress."
33. There has been no two-stage consultation process in relation to the Approved ERF and no consultation compliant with regulation 12.

Ground 2: failure to make available a Consultation Statement

34. Further, in breach of regulation 12(b), prior to the Consultation Draft ERF, MCC did not produce or make available, in accordance with regulation 35, any Consultation Statement. In accordance with Regulation 12(b), MCC was required to make the Consultation Statement available prior to and for the purpose of seeking representations under regulation 13. Again, this is unsurprising: at the time of Consultation Draft ERF, there was no intention on the part of MCC that the final document would have the status of an SPD.
35. We note that, where an SPD is adopted, pursuant to regulation 35(2) there is no entitlement on the part of the LPA to cease to make a Consultation Statement available.

Ground 3: failure to provide sufficient time for representations

36. Regulation 12(b)(i) provides that the period for representations must not be less than 4 weeks from the date the LPA complies with regulation 12(b).
37. In circumstances where, in breach of regulation 12(b), MCC has failed to make available a copy of the Consultation Statement, no period for representations compliant with regulation 12(b) can yet have commenced.
38. Further, paragraph 5.1 of the SCI states, "The formal consultation period for a SPD lasts for at least 4 weeks but in practice this will often be for longer."
39. In accordance with regulation 12(b)(i) and the SCI, there was both a requirement and a legitimate expectation that there would be a consultation of not less than four weeks in respect of an SPD.
40. Without prejudice to the position expressed in paragraph 37 above, in breach of both that requirement and legitimate expectation, the consultation on the Consultation Draft ERF in fact lasted for less than four weeks, from 31st May 2019 to 26th June 2019.
41. MCC's failure to comply with regulation 12(b)(i) prejudiced SMG. By letters dated 6 and 25 June 2019 and emails dated 10 and 12 June 2019 (copies enclosed), noted that the consultation period was less than four weeks and invited MCC to confirm that a longer period would apply; that correspondence was ignored. SMG's letter dated 25 June 2019 records that its interests had been prejudiced by the deficient consultation exercise. Within the short duration permitted, SMG was not able to fully explore the issues presented by the ERF with its consultants, take proper advice or fully respond.

Ground 4: failure to make the SPD or adoption statement available

42. Regulation 14 provides that as soon as reasonably practicable after an LPA adopts an SPD, it must:

- a. make available in accordance with regulation 35 both the SPD and an adoption statement (as defined in regulation 11);
- b. send a copy of the adoption statement to any person who has asked to be notified on the adoption of the SPD (which, in the case of the ERF, includes SMG).

43. Further, paragraph 5.1 of the SCI states:

"We will then formally adopt the SPD. Once adopted, we will send out notifications on social media, publish the SPD on our website and make a hard copy available of the following documents:

- The Supplementary Planning Document
- Its adoption statement

The adoption statement will be sent to people who have asked to be notified of this."

44. In breach of both regulation 14 and the terms of the SCI, at the date of this letter, neither the SPD nor any adoption statement have been made available. No copy of the adoption statement has been sent to SMG, notwithstanding an express request by SMG to be provided with a copy of the ERF. That is despite 3 weeks having passed since Mr Smith's email first notifying SMG of the approval of the Approved ERF.

Ground 5: the ERF has not been the subject of a Strategic Environmental Assessment

45. The Environmental Assessment of Plans and Programmes Regulations 2004 ("**the SEA Regulations 2004**") make provision for the environmental assessment of a town and country planning or land use plan or programme which sets the framework for future development consent of projects listed in Annex 1 or II to Council Directive 85/337/EEC on the assessment of the effects of certain public and private projects on the environment, as amended by Council Directive 97/11/EC(1). This is commonly referred to as a Strategic Environmental Assessment.

46. As already noted, the Approved ERF identifies the Eastlands area as suitable for a "new large indoor arena with a capacity in excess of 20,000 spectators". A planning application has recently been submitted for such an arena and significant A class development. The application was accompanied by an environmental impact assessment because it constituted EIA development as defined in the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 by reason of the likely significant effects such development could have on the environment.

47. In summary, regulation 8 of the SEA Regulations 2004 prevent adoption of a plan or programme where an environmental assessment is required. An LPA is required to make a determination under regulation 9 of the SEA Regulations 2004 as to whether the plan or programme is likely to have significant environmental effects in order to determine whether an environmental assessment is required.

48. MCC has not made such a determination, but if they had they could only have concluded that this was a plan or programme likely to have significant effects on the environment, a judgment which has already been reached in relation to the recent planning application in respect of the arena at Eastlands.
49. The Approved ERF has not been the subject of an SEA and, as such, its adoption as an SPD was unlawful.

Ground 6: adoption decision delegated to an individual who has an undeclared conflict of interest

50. The ERF 2017 records that it was prepared, "at the request of the Eastlands Strategic Development Company Ltd" ("**ESDCL**").
51. The 13.03.19 Report states:
 - a. "The development of this Framework, and the activity which has flowed from it, has been overseen by the Eastlands Strategic Development Company Ltd, a joint venture between the City Council and [the Abu Dhabi United Group]." (paragraph 2.1)
 - b. "the very strong interest in the opportunity to create a new leisure and recreation offer on the Etihad Campus on the development platform that has established there has led the Eastlands Strategic Development Company Ltd to encourage the development of a new planning framework to respond to this interest..." (paragraph 2.3)
52. On 24 July 2019, the Executive delegated the decision whether or not to adopt the ERF to the Strategic Director – Growth and Development, Mr Smith, in consultation with the Leader of the Council and the Executive Member for Housing and Regeneration, Ms Suzanne Richards.
53. Mr Smith is a director of ESDCL. Given that ESDCL was one of the authors of the original ERF 2017, to which the ERF was expressly identified as an update, is acknowledged to have overseen the activity which has flowed from it and is acknowledged to encourage the development of the new planning framework contained in the ERF, Mr Smith had a clear conflict of interest, which he failed to disclose, and the adoption of the ERF was consequently infected by bias.
54. Furthermore, the minutes of the Executive meeting of 24 July 2019 record that Ms Richards declared a personal interest in the item concerning the ERF as a member of the board of One Manchester. Ms Richards acknowledged that she also had a clear conflict of interest and yet the Executive nominated her as one of two persons with whom Mr Smith should consult, despite the clear risk that her own views on the adoption of the ERF would also be infected by bias.
55. For all or any of the above reasons, the ERF should be quashed.

Appropriate court

56. In SMG's view, any claim for judicial review of the Decision on the grounds above is appropriate for allocation to the Planning Court. Please let us know if you disagree, and if so why, within the time stated below.

Action required

57. SMG invites MCC to confirm that it will unconditionally revoke the Decision forthwith.
58. Please provide that response by no later than 10.30am on 18 May 2020. We note that you have already had 14 days in which to consider the above grounds which were set out in SMG's email dated 22 April 2020 addressed to Mr Smith.
59. In default, we hold instructions to commence proceedings seeking judicial review of the Decision without further notice to you.

Your response

60. Please ensure that your response to this letter and all communications are directed to the following email address: russell.beard@bakerskelly.com.

We look forward to hearing from you within the time stated. SMG's rights remain fully reserved.

Yours faithfully



BAKER SKELLY LLP

- cc. Manchester City Council, Legal Services, Po Box 532, Town Hall, Manchester M60 2LA
Ms F Ledden, City Solicitor (f.ledden@manchester.gov.uk)
Ms J Dennis, Deputy City Solicitor (j.dennis@manchester.gov.uk)

Schedule - Potentially interested party

OVG Manchester Limited, 55 New Bond Street, London, W1S 1DG and evgrant@deloitte.co.uk



**MANCHESTER
CITY COUNCIL**

**Fiona Ledden
City Solicitor**

PO Box 532
Town Hall
Manchester
M60 2LA

DX 714441 Manchester 1

By email only:

russell.beard@bakerskelly.com

Please ask for Stephanie Hall
e-mail: s.hall@manchester.gov.uk
Tel: 07976 811 205

Your ref: RJB/151
Our ref: CVL2010/19810

Date: 14 May 2020

Dear Sirs

The Eastlands Regeneration Framework: A 2019 Update

Response to formal letter of claim pursuant to the Pre-Action Protocol for Judicial Review under the Civil Procedure Rules

1 The claimant

SMG Europe Holdings Limited
c/o Baker Skelly LLP, 1 Quality Court, Chancery Lane, London WC2A 1HR

2 From

Manchester City Council
Legal Services
PO Box 532
Town Hall
Manchester M60 2LA

3 Reference details

Case number: CVL2010/19810
Fiona Ledden, City Solicitor

4 The details of the matter being challenged

The Claimant seeks to quash the decision to approve the Eastlands Regeneration Framework (ERF) on the following five grounds:

- (i) Ground 1: Failure to undertake the (at least) two stage consultation process for a supplementary planning document;
- (ii) Ground 2: Failure to make available a consultation statement;
- (iii) Ground 3: Failure to provide sufficient time for representations;
- (iv) Ground 4: Failure to make the supplementary planning document or adoption statement available;
- (v) Ground 5: The ERF has not been the subject of a Strategic Environmental Assessment; and
- (vi) Ground 6: Adoption decision delegated to an individual who has an undeclared conflict of interest.

Further details of each ground are contained in the Claimant's letter before action.

5 Response to the proposed claim

The Council **concedes grounds 1 to 4**. The adoption of the ERF has been cancelled. A copy of that decision is enclosed.

The Council **does not concede Ground 5**. A Strategic Environmental Assessment is not required pursuant to Article 2(a) of Directive 2001/42/EC and Regulation 5(2) of the SEA Regulations 2004.

The Council **does not concede Ground 6**. There has been no conflict of interest. The Council, in the preparation of the ERF and in its subsequent decision-making, has been clear to distinguish its actions in its separate capacities as landowner and as local planning authority.

Further and in any event, given that the adoption of the ERF has been cancelled, this renders Ground 5 and Ground 6 academic. The Council would welcome confirmation by return that the Claimant does not intend to commence proceedings.

6 Details of any other Interested Parties

OVG Manchester Limited
55 New Bond Street
London
W1S 1DG
c/o evgrant@deloitte.co.uk

7 ADR proposals

Not applicable.

8 Response to requests for information and documents

Not applicable.

9 Address for further correspondence and service of court documents

By email only to Stephanie Hall, Principal Solicitor
s.hall@manchester.gov.uk

Yours faithfully

for the City Solicitor

cc evgrant@deloitte.co.uk

MANCHESTER CITY COUNCIL

Report to: Strategic Director – Growth and Development
Date: 14th May 2020
Subject: Eastlands Regeneration Framework
Report of: Richard Cohen, Principal Development Surveyor

1. Purpose of the Report

- 1.1. On 27th March 2020 the Strategic Director – Growth and Development exercised his delegation, in consultation with the Leader and the Executive Member for Housing and Regeneration, to adopt the Eastlands Regeneration Framework (ERF) in accordance with the resolution of the Executive of 24 July 2019.
- 1.2. Subsequently, it has come to light that the period of consultation undertaken fell short of the statutory period required for the ERF to be adopted as a supplementary planning document (SPD). In order to provide maximum flexibility moving forward, this report seeks approval from the Strategic Director – Growth and Development in consultation with the Leader and the Executive Member for Housing and Regeneration to cancel the adoption of the ERF to allow for further consultation to be undertaken as necessary.

2. Recommendation

- 2.1. The Strategic Director – Growth and Development is recommended to cancel the approval of the ERF with immediate effect, for the reasons set out in this report.

3. Contact Officers

Name: Joanne Roney OBE
Position: Chief Executive
Telephone: 0161 234 3006
E-mail: j.roney@manchester.gov.uk

Name: Eddie Smith
Position: Strategic Director – Growth & Development
Telephone: 0161 234 3030
E-mail: e.smith@manchester.gov.uk

Name: Carol Culley
Position: Deputy Chief Executive & City Treasurer
Telephone: 0161 234 3564
E-mail: c.culley@manchester.gov.uk

Name: Fiona Ledden
Position: City Solicitor
Telephone: 0161 234 3087
E-mail: f.ledden@manchester.gov.uk

4. Background Documents

- East Manchester Strategic Regeneration Framework, Executive, 19 December 2007
- A Strategic Partnership with Manchester City Football Club, Executive, 24 March, 2010
- Ancoats and New Islington Neighbourhood Development Framework, Executive, 29 October 2014
- Refresh of the Ancoats and New Islington Neighbourhood Development Framework, Executive, 14 December 2016
- The Eastlands Regeneration Framework, Executive, 8 March 2017
- Eastlands Regeneration Framework, Executive, 13 December 2017
- The Eastlands Regeneration Framework: Update, Executive, 25 July 2018
- Eastlands Regeneration Framework, Executive, 13 March 2019
- Eastlands Regeneration Framework, Executive, 24 July 2019
- Eastlands Regeneration Framework, Strategic Director – Growth and Development, 25 March 2020

5. Introduction

- 5.1 On 13 March 2019, the Executive endorsed the draft Eastlands Regeneration Framework (ERF) for consultation. A public consultation exercise ran between 31 May and 26 June 2019, being a total of three weeks and five days.
- 5.2 The Executive received a report to its meeting on 24 July 2019 that summarised the key issues raised in the consultation exercise and provided responses and clarifications to each of the key issues raised. The Executive agreed to delegate authority to the Strategic Director – Growth and Development to approve the final version of the ERF in consultation with the Leader and Executive Member for Housing and Regeneration.
- 5.3 The Strategic Director – Growth and Development exercised that delegation on the 27th March 2020 and the ERF was adopted.
- 5.4 Subsequently, it has come to light that the period of consultation undertaken in 2019 fell two days short of the four week statutory period required for the ERF to be adopted as an SPD. This two day shortfall means that it would be very difficult to progress the ERF as an SPD without undertaking a further consultation.

6. The proposed cancellation of the adoption of the ERF

- 6.1. In order to provide maximum flexibility to the Council, it is considered that the most appropriate course of action would be to cancel the adoption of the ERF with immediate effect. This would enable the Council to undertake a further public

consultation at an appropriate time in future, in accordance with the Town and Country Planning (Local Planning) (England) Regulations 2012, should it wish to progress the ERF as an SPD. Alternatively, it would enable the Council to revise the ERF to bring it within the scope of a residual local development document, which has less onerous consultation requirements. At this juncture, whilst our staffing capacity is stretched on dealing with both the health and economic crises confronting the city, undertaking a public consultation exercise will not be undertaken until later in the year (or even early 2021) when the organisation has the capacity to do.

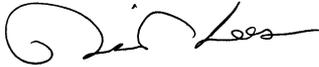
- 6.2. In the interim, planning applications would continue to be determined in accordance with the development plan (the Core Strategy) and other material considerations.
- 6.3. There is no requirement to table a further report to the Executive prior to the Strategic Director – Development cancelling his approval of the ERF.

7. Conclusion

- 7.1. The cancellation of the approval of the ERF would enable the Council to consider options for progressing the document in accordance with the statutory requirements. This represents a legally robust basis for moving forward.

Approval has been authorised by:

Signature:  Date: 14/05/2020
Strategic Director – Growth and Development

Signature:  Date: 14/05/20
Leader

Signature:  Date: 14/05/20
Executive Member for Housing and Regeneration

Appendix 5

Extract from OVG presentation material (May 2020)

THE ARENA MANCHESTER DESERVES

PART OF A UNIQUE ENTERTAINMENT DISTRICT

- 1 21,000 CAPACITY ARENA
- 2 RECONFIGURED JOE MERCER WAY
- 3 ARENA CAR/COACH PARK
- 4 HOTEL AND CINEMA
- 5 F+B DISTRICT
- 6 ACTIVATED PUBLIC REALM
- 7 TENNIS CENTRE
- 8 ETIHAD STADIUM
- 9 RECONFIGURED CITY SQUARE

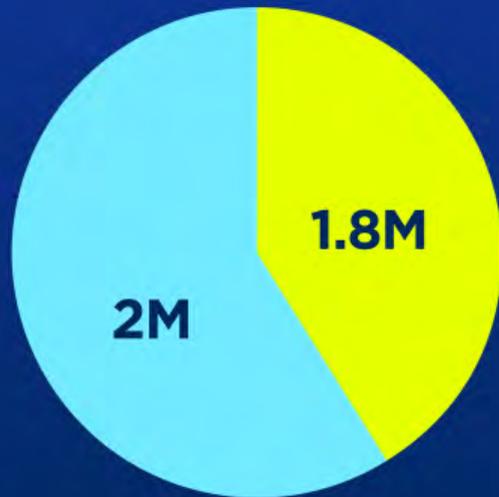


THE ARENA MANCHESTER DESERVES

KEY METRICS

COMBINED ANNUAL FOOTFALL

Upon completion the wider entertainment campus will attract 5M visitors per year and will be the central home to the 15M+ fans in northern England



200+

EVENTS

- NEW ARENA
- ETIHAD STADIUM

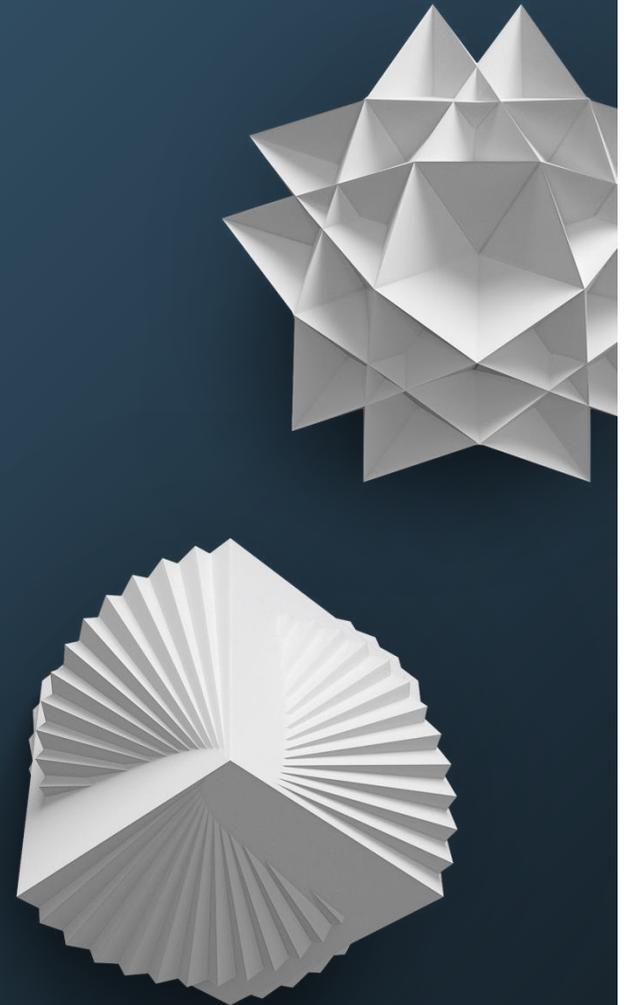


Economic analysis of Manchester Arena Market

Response to PwC and ekosgen reports

Prepared for ASM Global

June 2020



Introduction

We understand that Oakview Manchester Limited (OVG) has submitted a planning application for permission to build a new 23,500 capacity venue in Manchester (the “New Arena”). We have been asked by ASM global to assess two reports prepared by PwC ¹ and ekosgen ² submitted in support of OVG’s application. We have been asked to assess the validity and robustness of the assumptions made and whether there is likely to be sufficient market growth to accommodate a second large arena in Manchester without detrimental impact on the city centre economy.

Both reports argue that there will be significant market growth in Manchester that would support the New Arena. This material market expansion is argued to be driven both by general trends in the entertainment market and by “supply-led growth” (i.e. that opening a new, modern venue in Manchester will draw more events to the city).

This document presents our findings that:

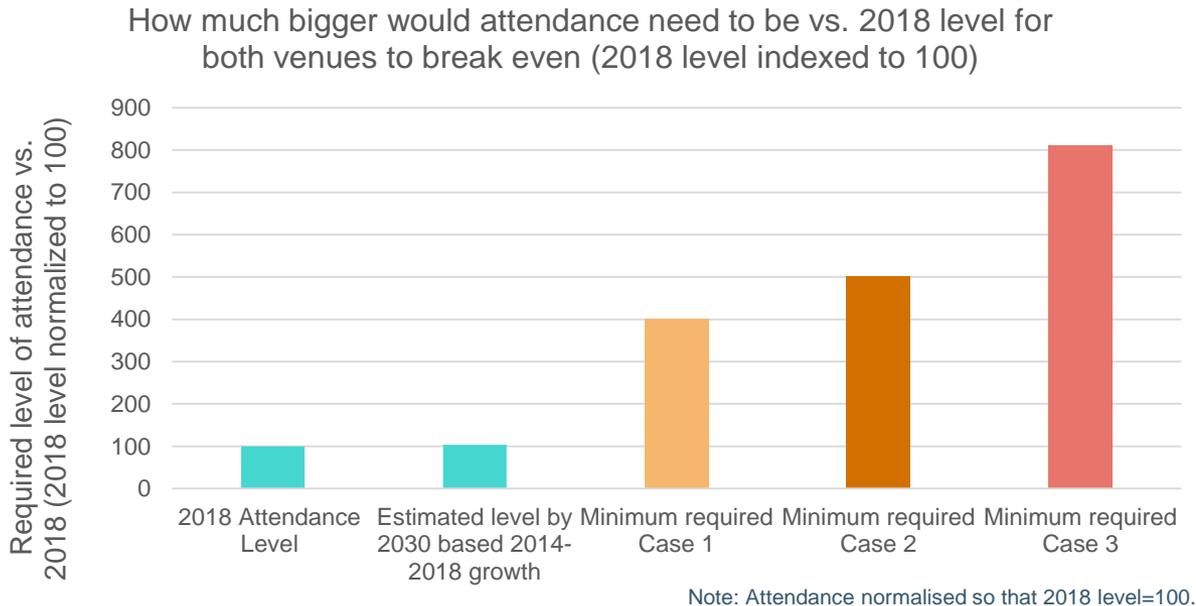
- **At current levels of demand, Manchester cannot support two venues of this size. Very significant (wholly unrealistic) growth of between 4-8 times the attendance levels in 2018 (growth of 300-700%) would be needed if both venues are to operate profitably.**
- **PwC and ekosgen vastly overestimate future growth in Manchester: they use a combination of inconsistent assumptions and cherry-picked data to project attendance to increase 2.4 times by 2035 despite actual growth in attendance in UK and Manchester being essentially flat.**
- **Manchester is already better served (in terms of Arena capacity per capita) than any other UK geography including London and Birmingham.**
- **The claim that a new venue would draw in new events which currently play London, but not Manchester is false given Manchester already does better than any other city in attracting events and the remaining London events are typically London centric, one-off events or played Manchester in subsequent years.**
- **PwC’s claim that the Manchester Arena (MA) is “at capacity” is based on a misunderstanding of the available data and, once corrected, the data shows substantial spare capacity at the MA in terms of both available dates and ability to accommodate more eventgoers.**

Executive Summary (1/7)

At the current level of demand, Manchester cannot support two venues of this size. Unrealistic levels of growth would be needed for both to break even and cover investment costs

Current events coming to Manchester cannot support two venues of this size. Dividing the current “pie” (i.e. MA attendance based on 2018 figures) would mean one or both venues being unable to break even. This is particularly so because OVG would need to earn a return on its £350m investment and investment of up to £100m is proposed to redevelop the Manchester Arena.

Analysis (summarised in the chart below) shows attendance 4-8 times the current level would be needed for both venues to operate profitably taking account of OVG’s £350m investment. The chart indexes 2018 attendance at Manchester Arena to 100 and asks how much higher attendance would have to be based on our financial modelling for both the Manchester Arena and New Arena to break even over a 30 year period. In Case 1 attendance of 400 (4 times the 2018 level) would be needed. Accounting for the planned investment of up to £100m in the Manchester Arena and using a more stringent break even threshold increases this to 800 (8 times the 2018 level would be needed). Full details of this analysis along with details of the sensitivity analysis we have performed is provided later in our report (see slides 18 and 19).



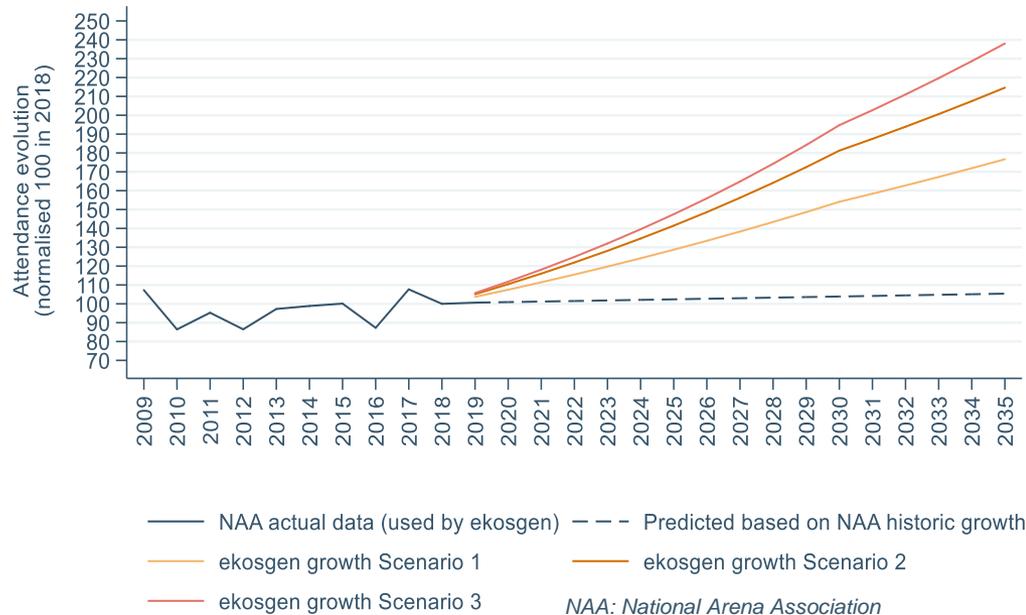
Case 1: Minimum required for two arenas to break even in *aggregate*, without redevelopment costs of up to £100M for the Manchester Arena.

Case 2: Minimum required for two arenas to break even in *aggregate*, with redevelopment costs of up to £100M for the Manchester Arena.

Case 3: Minimum required for two arenas to break even *individually* (redevelopment costs do not make a difference, threshold determined by the New Arena).

Executive Summary (2/7)

PwC and ekosgen make unrealistic projections which vastly overestimate attendance growth in Manchester



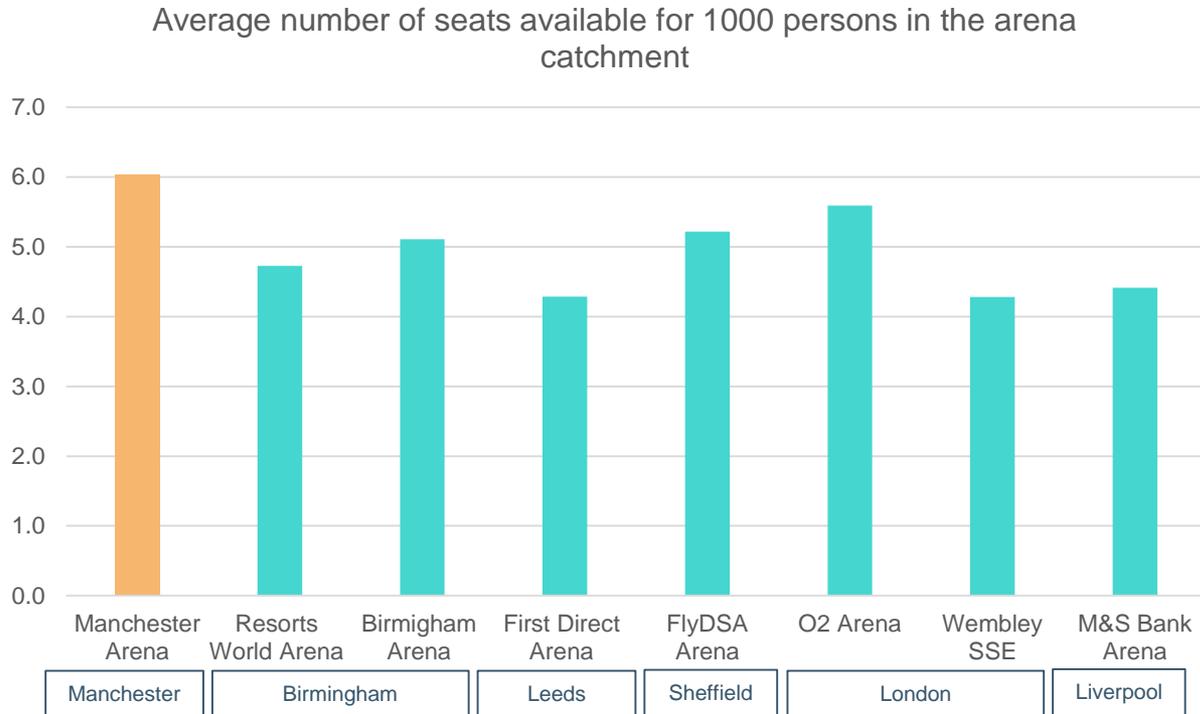
Note 1: there is a disconnect in 2019 between ekosgen scenarios and actual data because ekosgen provides an estimate for 2019 which already differs from the actual NAA attendance growth figure.
Note 2: historic trends based on UK-wide NAA data (used in ekosgen's projections for Manchester). Using Manchester-specific trends would show an even more abrupt difference between past experience and ekosgen's projections.

PwC and ekosgen use forecasts based on historic National Arena Association (NAA) data and predict huge growth in attendance at events in Manchester relative to past trends (see above where the orange ekosgen forecasts differ dramatically from the blue historic NAA data). But this relies on cherry-picked data analysis or unreasonable assumptions:

- ekosgen forecast the market will grow by +3.7% to +5.7% per year, every year, up to 2035. Actual untweaked growth figures by category – as per the same data used by both ekosgen and PwC – shows 0.3% attendance growth per year on average over the past 4 years in the UK. The same flat (even declining) trend is observed in Manchester. **Assuming a continuation of past trends – which already is an optimistic assumption in the present Covid-19 context – would translate into a 5% increase by 2035, not the 80%-150% assumed by OVG's advisors.**
- To get to these unexplained and exaggerated growth rates ekosgen/PwC have cherry-picked growth rates for event categories that are growing (e.g. darts or e-sports) while downweighing far more relevant event categories (e.g. concerts and comedy) which are flat or declining. They have also made other elementary errors (e.g. PwC's growth rates do not account for inflation).
- PwC assert that a new venue would also result in "supply-led" growth, but this is not supported by the evidence. For example, PwC claim that people would be willing to drive twice as far to come to an event at the New Arena than the Manchester Arena, but this is an entirely unsubstantiated assertion and inconsistent with actual driving patterns for other venues

Executive Summary (3/7)

Manchester is already better served than other UK cities

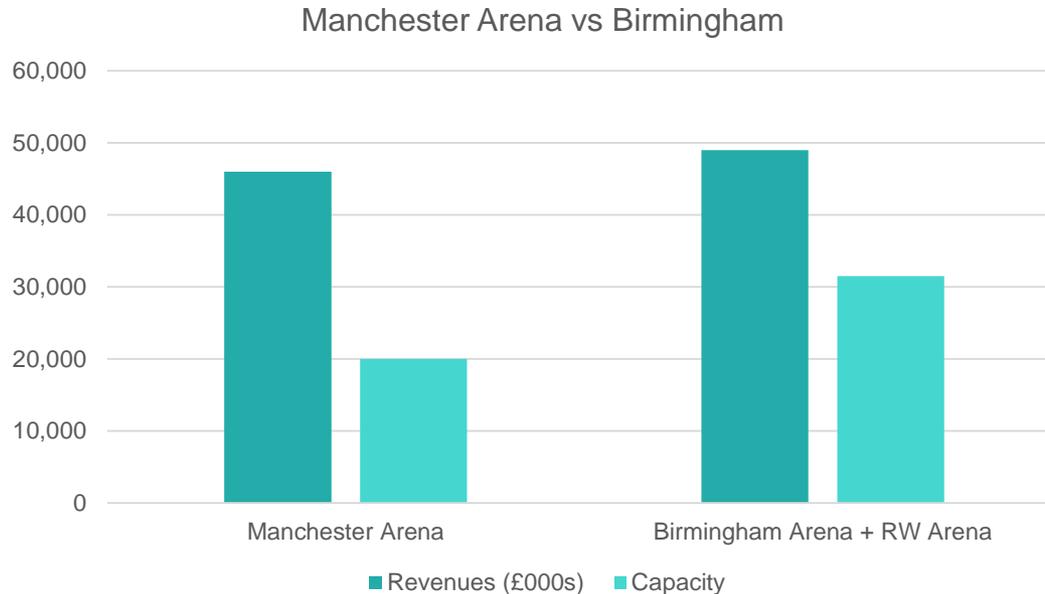


The Manchester catchment is already better served than other UK cities: building on PwC's own data,¹ the number of arena seats per capita is already higher in the Manchester catchment than for a set of comparator catchment areas, including London.

¹ See PwC data on catchments (p.45, 49, 51).

Executive Summary (4/7)

Birmingham is not a good example of supply-led growth



PwC and ekosgen argue that Birmingham is a good example of a successful two-arena region; this is meant to evidence “supply-led” growth.

In fact: Birmingham generates similar levels of revenues to those of Manchester Arena in spite of Birmingham being a “two-arena region” with 50% higher capacity than that of the Manchester Arena. Furthermore, the two Birmingham venues are operated by the same company, and therefore have lower fixed costs, and do not have to repay capital on £350m (OVG proposed investment in the New Arena) or up to £100m (ASM proposed investment in Manchester Arena). In comparable circumstances, the revenues and capacity in Birmingham would need to be significantly higher to remain profitable.

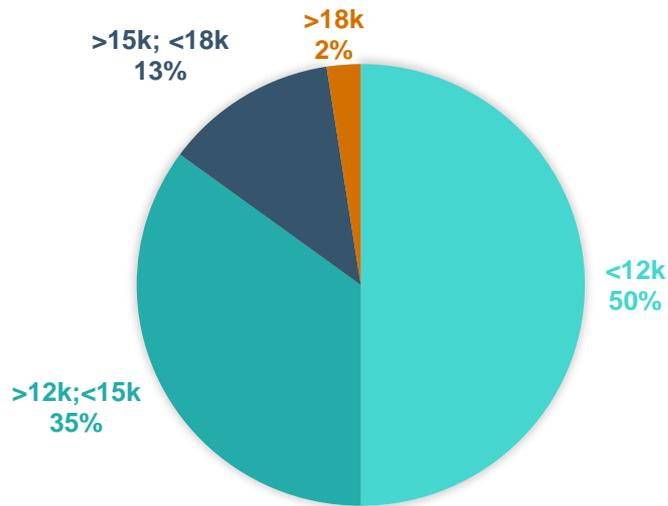
PwC acknowledge this weakness in their report when they concede that a “step up would be required from what Birmingham currently delivers (p.50)”.

Executive Summary (5/7)

The Manchester Arena is not capacity constrained and the PwC “utilisation” rate is flawed and misleading

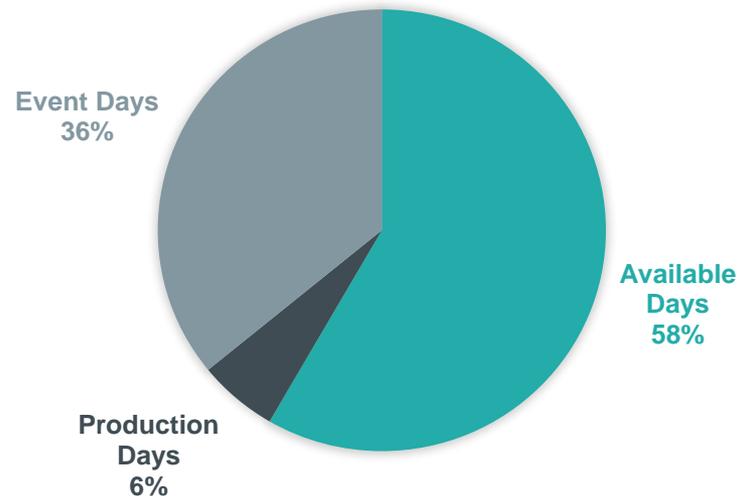
PwC claim the MA has 95-100% capacity utilisation, but this is incorrect and based on a flawed understanding of what the term “capacity” means in this industry. The Manchester Arena has spare capacity both in terms of spare days to accommodate additional performances and in being able to accommodate more eventgoers at the events it currently holds. PwC use capacity data comparing tickets sold to the number of tickets made available for sale, which is not a real capacity constraint. Promoters often select a capacity format which is lower than the available maximum to suit a particular event and expected audience, so limiting the tickets available for sale. This is not a true capacity constraint as a promoter can put more tickets on sale as long as the arena has available space

Most events at the MA are well below its max 20k capacity...



Split of performances at MA by attendance level in 2018

...And the MA could hold twice as many performances



Split across event days, production days and available days at the MA in 2018

Executive Summary (6/7)

There is no material “untapped pool” of events which currently play London but not Manchester

PwC and ekosgen argue that a new venue could be filled with the ~35% of events which currently play London, but not Manchester...

...But a closer look shows that this is not supported by the evidence. The Manchester Arena already does better than any other UK venue in attracting events that also play London and among the remaining ~35% the most common reason to not play Manchester in the same year is that these are London-centric events or touring events which have already or intend to play Manchester the year before or after London.

Played/not played in Manchester	% performance
Played in Manchester (MA or smaller venues)	63%
Proportion of events at the O2 in London not playing Manchester in 2019	37%
Reasons not played in Manchester	% performance
Competing event in Manchester	0.3%
Entertainment event London-based	5.9%
Local London religious content	4.0%
London-centred TV ceremony	3.1%
Multiyear Tour Upcoming Manchester/Manchester past	5.0%
New test event touring potential	3.4%
No Manchester audience	3.1%
On sale but cancelled	0.9%
Recent Play Manchester/Test Market	0.6%
Sport London Based Performer	1.6%
Sport event London base	5.9%
Proportion of events at O2, but not Manchester, in 2019 that could potentially have been brought to Manchester with a more attractive venue	3.1%

Source: events playing the O2 and Manchester in 2019. ASM were then asked to review event by event to determine the reasons why these events did not play the Manchester Arena. 3.1% refers to those events which played the O2, but not Manchester, but may have done so if it had a more attractive venue

Executive Summary (7/7)

Impact of Covid-19

All this analysis now needs to be set against the **backdrop of the Covid-19 crisis**, which will reduce demand for large events going forward, even once the lockdown has ended.

Therefore, **rather than adjusting historic flat trend upward like PwC and ekosgen did, they may have to be adjusted downward instead**, making the construction of a new 23,500 capacity arena in Manchester all the more difficult to justify:

- Live entertainment and hospitality will likely be hit harder than any other industry.
- Costs can be expected to increase post-Covid due to higher health and safety standards that will be required.
- Already experiencing significant drop in demand e.g. in footfall in Manchester city centre.
- Other unforeseeable difficulties and greater uncertainty overall in the market making investments riskier.

Against this background ekosgen's predictions assuming attendance growth of 12% to 18% by 2023 in Manchester are likely overoptimistic given the current economic and social context of Covid-19 and its likely longer-term implications.

Outline of the report

1

Breakeven analysis: could both arenas cover their costs (including financing costs behind initial investment)? What would be the required level of attendance to accommodate both arenas?

2

“Market-led” growth is empirically limited and there is no reason to believe that the historic trend would change

3

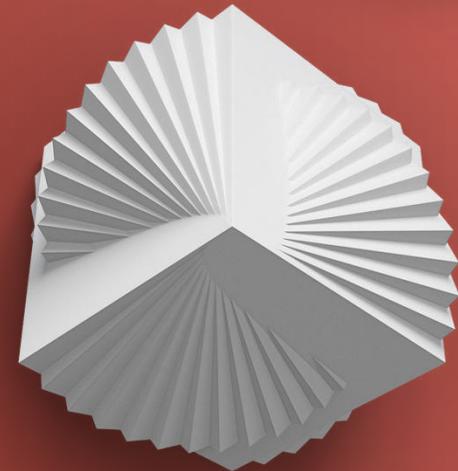
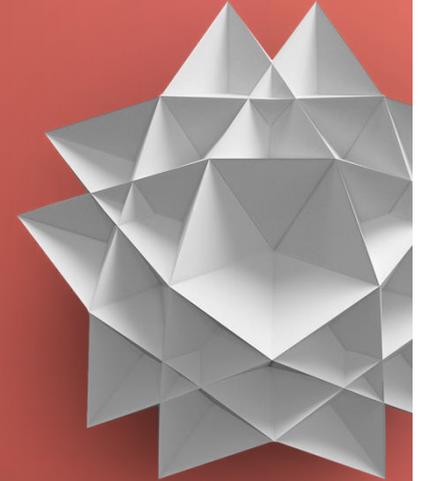
“Supply-led” growth would also be limited in Manchester post entry of the New Arena

4

Manchester is not underserved relative to other cities

Part 1

Breakeven analysis: how much demand increase is required for two large arenas to co-exist profitably in Manchester?



Overview of breakeven analysis

The PwC report acknowledges that, if the New Arena and the MA were to simply split the events that currently come to Manchester, one or both venues would fail to cover even their day to day running costs.

But PwC argue “there would only need to be limited growth in the total event numbers from existing for both arenas to be at breakeven or better and therefore remain viable – at least in the short-term”.¹

PwCs analysis is incomplete:

- OVG’s business plan presumably does not just require its venue to cover its day to day running costs (i.e. to be profitable day to day once constructed). It presumably needs to foresee a return to cover its £350m investment.
- The required growth in event volume to allow the MA to cover its running costs *and* allow the New Arena to make a reasonable return on investment will be substantially larger than suggested by PwC.

To fill the gap in PwC’s analysis we have conducted a fuller “breakeven analysis” and determined the level of event growth required for both Arenas to operate profitably (including OVG paying back its capital investment in a reasonable period). This shows that extremely high levels of event growth would be required for both arenas to operate profitably.

A note on indexing and presentation of our analysis

Our break even analyses works out how much bigger the event attendance would have to be to support the two venues profitably taking account of different definitions of “break even” and making different assumptions about matters including investment levels and revenues per event.

To present our results we express the required level of attendance either in terms of the required level of growth vs. its 2018 level or in terms of the overall level of attendance that would be required compared to the level in 2018. To do so we “index” the required level of attendance to 2018 level, setting the 2018 level at 100 (which represents actual attendance at MA in 2018).

So, for example, if our break even analysis says the required attendance level is 150 this means that the attendance level would need to be 1.5 times greater than its 2018 level (i.e. it would need to increase by 50%). Similarly, if our break even analysis says that the required attendance level is 800 this means it would have to increase to 8 times compared to its 2018 level (i.e. 700% growth would be needed).

We provide notes under each of our results tables to explain our results and how they should be interpreted in light of this indexing approach.

In other analysis later in the document we similarly index levels to their 2018 values.

Estimating the market increase required for both venues to be profitable in Manchester

We estimate the attendance growth that would be required in Manchester for the venues to coexist profitably in Manchester assuming that the MA and New Arena would earn the same margin per event as the MA did in 2018.¹ We consider three questions:

- 1. What is the growth required for *just the MA* to make a profit assuming events are shared 50:50 with the New Arena?** This is an absolute minimum of required growth as the MA could be expected to win less than half of events and this scenario does not allow for OVG to recover its upfront costs (which it would need to do so to break even).
- 2. What is the growth required for the MA and the New Arena to make a profit *in aggregate* (aggregating together their respective costs and revenues)?** This means that we look at the overall profitability, allowing for one of the two venues to make losses, but for the two venues collectively to be profitable. This is an intermediate scenario.
- 3. What is the growth required for *both the New Arena and the MA* to make a profit *individually* assuming demand is equally shared?** This is the most appropriate assumption as it ensures both venues remain viable.

We also account for the investment of up to £100m that is to be made to redevelop the Manchester Arena. As can be seen in the table below, very substantial event growth is required if the MA is to break even and the New Arena is to make a return

	Required growth (assuming a £350m investment)	Required growth (assuming a £350m investment + £100M MA redevelopment costs)
Growth required for <u>just the MA to break even</u> assuming a 50/50 split of demand (OVG would not cover its investment costs in this scenario)	10% (but OVG would not cover its investment costs)	238% (but OVG would not cover its investment costs)
Growth required for the MA and the New Arena to break even in <u>aggregate</u> (i.e. <u>total</u> profit is positive while one or the other can be negative) accounting for investment costs	301%	401%
Growth required for <u>both venues to break even individually</u> assuming 50/50 split of demand and requiring OVG to cover its investment	711%	711%

Note: Assuming a 10% WACC (Weighted-Average Cost of Capital) and a 30-year payback period.

Result 1: At current demand levels it would not be possible for both venues to break even, even focussing only on running costs

Current levels of demand would not support a new venue in Manchester. Splitting in half the current demand in Manchester would cause the MA and the New Arena to make losses. This is not disputed by PwC or ekosgen.¹

The bare minimum level of growth in attendance for the Manchester Arena to break even is 10%

But, growth at this level would not be sufficient to render both venues viable. It would allow the MA to make a profit, but **it would not be sufficient for the New Arena to make a return on its investment.**

In addition, the estimated 10% is conservative because this would be the absolute minimum level of demand required to be profitable in one given year. It does not account for buffers that would secure profitability if demand were to vary across different years.

These results take no account of Covid 19 and its impact on the entertainment industry.

Note: these attendance numbers are all indexed to 2018 levels. See earlier slide on indexing.

	Without £100m redevelopment costs at the MA	With £100m redevelopment costs at the MA
Current level of demand at the MA (<i>current attendance normalised at 100 i.e. so that current level=100</i>)	100	N/A
Minimum level of demand that is required for the MA to be profitable	55	169
Level of demand achieved at the MA assuming current market demand is split in half between the MA and the New Arena	50	50
Additional demand required for the MA to break even after the New Arena opens assuming demand is shared in half	+10% (55/50)	+238% (169/50)

¹ See page 29 of the PwC report.

Result 2: Substantial growth rate would be necessary to break even “in the aggregate” accounting for investment costs

The previous case does not account for the fact that a return would need to be made on the initial investment of £350m.

In this scenario, we therefore recalculate the level of demand growth that would be required for the two venues to break even *in the aggregate* taking account of their upfront investments i.e. have a positive ROI (Return on Investment) assuming a payback period of 30 years and a cost of capital of 10%.

“In aggregate” means that we look at the overall profitability of the two venues taken together in Manchester. The purpose of this scenario is to consider the investment rationale in the aggregate, i.e. from the Manchester area perspective overall, leaving aside profit redistribution considerations between the two venues. In reality, the venues are run by separate operators and they will each need to make a profit individually (which is why we consider our third analysis the most relevant one).

The latter case – whereby both venues need to make a profit individually – is discussed next.

	Based on a £350m investment	
	Without £100m redevelopment costs at the MA	With £100m redevelopment costs at the MA
Current level of demand in the MA (<i>attendance normalised at 100 i.e. so that current level=100</i>)	100	N/A
Minimum level of demand that is required for the MA and the New Arena to be profitable in the aggregate	401	501
Additional demand required for the venues to break even in the aggregate after the New Arena opens	301% (401/100)	401% (501/100)

Note: computations are indexed setting attendance level in 2018=100. So, 401 means an attendance level 4 times the 2018 level is needed to break even (which means 300% growth on the 2018 level).

Result 3: Even more substantial/unrealistic growth in event volume is needed for *both* venues to break even *individually*

The previous case looked at the aggregate viability of the Manchester area by considering the total profit generated and the costs (incl. the upfront investment) incurred.

It ignored that both venues would actually need to make a profit *individually*. In particular, it means that the level of profit generated in the New Arena would need to cover the whole investment costs of £350m on its own.

Still assuming that the demand would be equally shared across both venues, we estimate the critical growth required for the New Arena to be profit making.

This further increases the required level of growth to levels which could not realistically be achieved (711%). Because the more stringent constraint is on OVG to break even, the redevelopment costs at MA do not make a difference in those results.

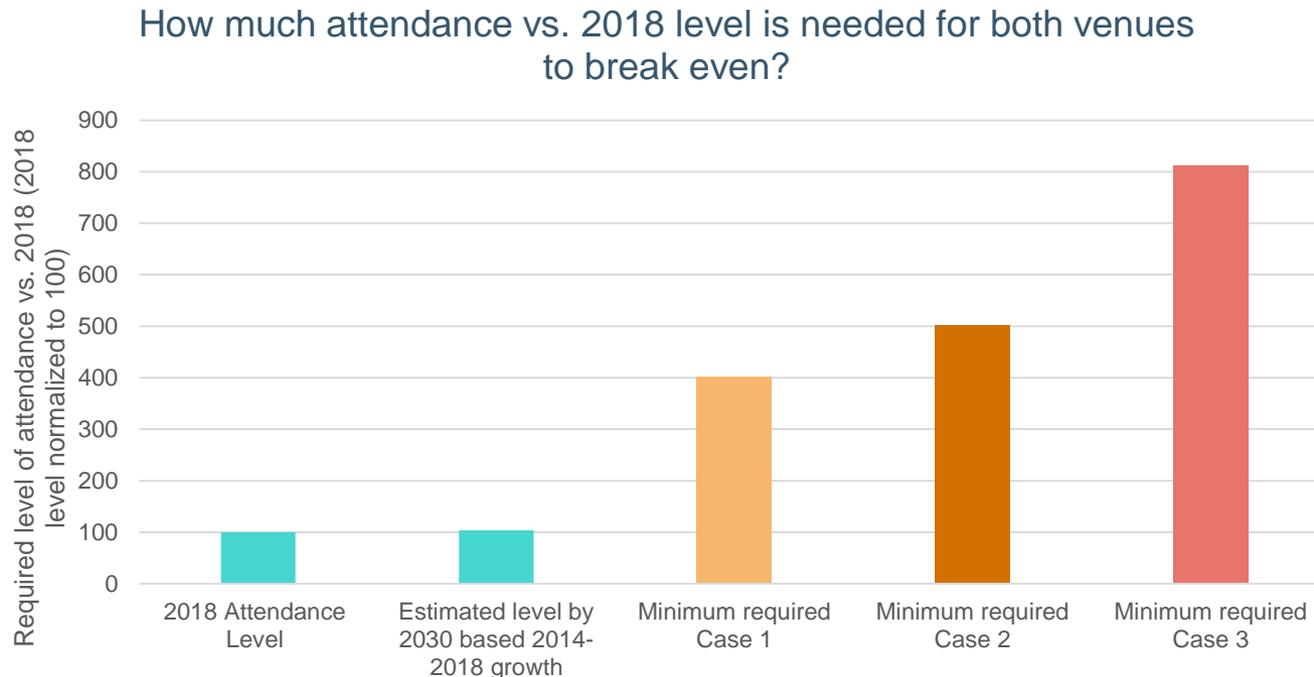
This analysis assumes repayment starts as soon as the investment is made. It does not account for the period of construction where the arena will not generate cash-flow. Hence, despite the magnitude of this estimate, it is currently underestimated.

	Based on a £350m investment
Current level of demand in the MA (<i>attendance normalised at 100 i.e. so that current level=100</i>)	100
Minimum level of demand that is required for the New Arena to be profitable	406
Level of demand achieved assuming the MA demand is shared in half between the MA and the New Arena post entry	50
Additional demand required for the venues to break even in the aggregate after the New Arena opens	711% (406/50)

Note: assuming a 10% WACC and a 30-year payback period. Computations are indexed setting attendance level in 2018=100. Because we have assumed demand will be shared 50/50 between venues, to achieve the minimum level of demand required for the New Arena to be profitable (406 after rounding up), total attendance needs to equal 812, which means attendance 8 times the 2018 level is required (711% growth vs the 2018 level).

Summary of results: minimum required attendance to break even

Attendance would have to increase to 4 to 8 times the 2018 level (growth of 300-700%) for both venues to cover their investment costs and be profitable. Focussing on case 3 (which requires both venues to be profitable individually and is the most appropriate) requires attendance 8 times current level. This is seen in the chart below which expresses level of attendance required indexing 2018 level of attendance to 100.



Note: Attendance was normalised from the 2018 level.

Case 1: Minimum required to break even *in aggregate* without redevelopment costs of £100M for the Manchester Arena.

Case 2: Minimum required to break even *in aggregate* with redevelopment costs of £100M for the Manchester Arena.

Case 3: Minimum required to break even *individually* (redevelopment costs do not make a difference, threshold determined by the New Arena).

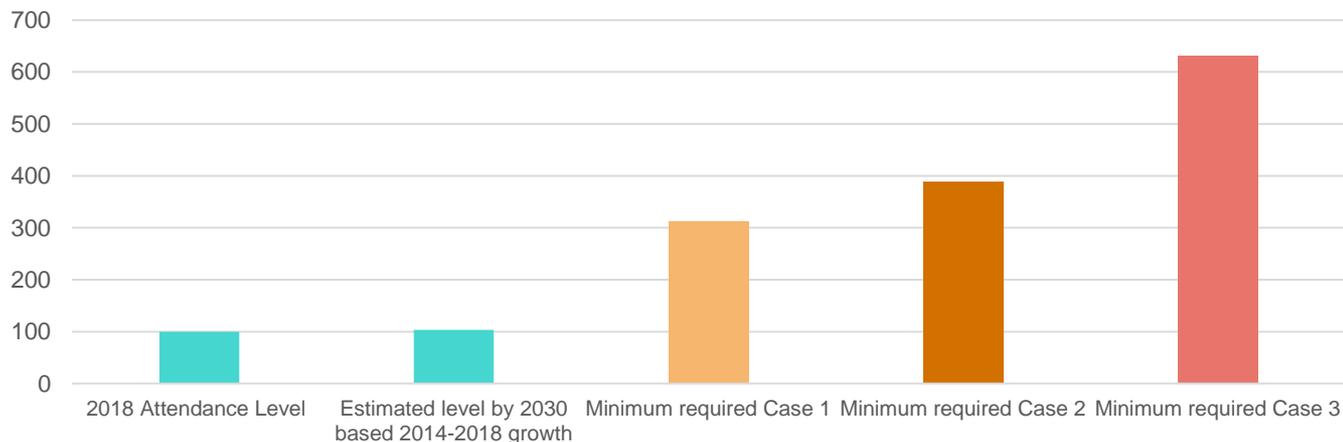
Break even results do not change materially if we allow for the New Arena to make more profit per event than MA

The previous breakeven numbers are computed assuming the New Arena will have the same level of contribution profit per attendee seen at the MA currently. **To check robustness of results we allow for profits per attendee to be 25% higher at the New Arena** (e.g. due to selling more premium seating etc.) than what is currently achieved at the MA.

It is not obvious that one should assume the New Venue will make bigger profits per attendee. On the one hand the New Arena might earn higher revenues per event (e.g. via more F&B revenue or premium seating). On the other one would expect having two similarly-sized venues in the same city would put downward pressure on revenues due to increased competition. Therefore the effect is unclear. **Still, allowing for the New Arena to make 25% higher margins for a given level of attendance does not change the fact that very large growth in attendance (3 to 6 times current level) is needed for both venues to break even and cover their investments.**

How much attendance vs. 2018 level is needed for both venues to break even?

Sensitivity analysis assuming the contribution per attendee at the New Arena would increase by 25% compared to MA's current levels



Case 1: Minimum required to break even *in aggregate* without redevelopment costs of £100M for the Manchester Arena.

Case 2: Minimum required to break even *in aggregate* with redevelopment costs of £100M for the Manchester Arena.

Case 3: Minimum required to break even *individually* (redevelopment costs do not make a difference, threshold determined by the New Arena).

What are the implications of these results for the assessment?

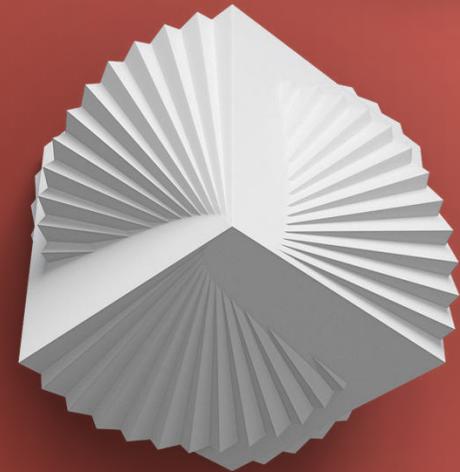
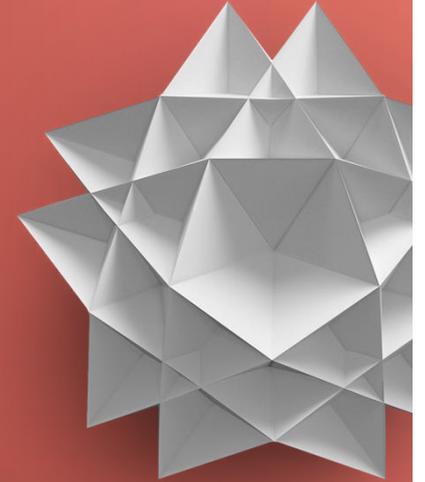
This breakeven analysis shows that the New Arena and the MA can only profitably co-exist if there is substantial and unrealistic growth in event attendance in Manchester (growth up to 8 times the 2018 level would be required).

The only way, such growth could come about would be if there was significant underlying growth in demand and/or good reason to think that the opening of a new venue would, in itself stimulate sizeable event/attendance growth (“supply-led growth” in PwC’s terminology).

PwC argue for substantial trend growth and for substantial supply-led growth. In the next two sections we explain why their analysis is overstated and flawed. In any event, the level of growth they forecast is below the levels required to support both venues and cover the required investments.

Part 2

Historic growth is limited
and there is no compelling
reason for growth to
increase substantially



Overview of this section

PwC/ekosgen predict very substantial growth in event volumes/attendance which they argue make a second venue financially viable. This section discusses their methodology and explains why we consider their forecasts to be overly aggressive and unrealistic. We proceed in stages:

- First we summarize PwC and ekosgen's forecasts and the sources/assumptions used.
- Secondly, we provide an overview of our high-level critiques of their methodology.
- We then show that their methodology results in unrealistic and overly aggressive increases in attendance that are out of line with pre-existing trends in the National Arena Association data they relied upon.
- Following this, we analysed the detail of these forecasts, providing detail on the numbers reported (and not reported) by PwC and ekosgen and the oddities in their assumptions. For full transparency we report the “raw” unadjusted NAA data so the reader can see actual developments in historic attendance.
- Then we explain that, even the overly aggressive forecasts made by PwC and ekosgen would be insufficient for attendance to meet the break even levels computed in the previous section.
- Finally, we discuss the implications of the Covid-19 situation and changes in the likely macroeconomic outlook as compared to the situation envisaged at the time the ekosgen and PwC reports were written.

Overview of PwC and ekosgen methodologies

Both PwC and the ekosgen first estimate or assume market growth rates at the UK level which are then redistributed to Manchester/new arenas.

The PwC report concludes that the UK can support between 4-5 new arenas by 2030 if one assumes that all projected growth would be captured by said new arenas (i.e. it ignores the capacity, ability and incentive of existing venues to capture part of this market-level growth).

ekosgen redistribute the estimated/assumed growth across various regions and arenas, assuming that Manchester would capture 50% of the growth accruing to the northern region.¹ The redistribution methodology remains unclear to us as it is not explicitly detailed in their report.

As we will see both PwC and ekosgen rely on the same data but in inconsistent ways, cherry picking numbers that support their conclusions. ekosgen further make assumptions that are inconsistent with the underlying data.

The Table summarises their assumptions. The inconsistencies and limitations are discussed in the following slides.

Overview of PwC and ekosgen's approaches and key assumptions

	PwC	ekosgen
Step 1	Estimate market growth <i>in revenue terms</i> up to 2030 based on past trends	Assume market growth by 2030/35/40 <i>in attendance terms</i> combining data and "market intelligence"
Step 2	Calculate number of arenas that would be supported by this growth at the UK level	Redistribute market level growth across the different regions
Key assumptions	<p>The entire UK market growth would be captured by new arenas</p> <p>Dismiss attendance growth (that is estimated to be flat) to favour revenue growth (while acknowledging that revenue growth is partly driven by price inflation)</p> <p>Argue niche categories would be sufficient to support the required growth.</p> <p>Argue "supply-led" effects are significant (hence most of the UK growth would accrue to new venues)</p>	<p>Attendance is assumed for most categories (does not rely on actual historic data which is much lower)</p> <p>Niche categories would be sufficient to support the required growth for a new venue in Manchester</p> <p>Manchester would capture 50% of the assumed growth accruing to the northern region</p> <p>Supply-led effects are significant (hence most of the UK growth would accrue to new venues)</p>

Overview of flaws in the PwC analysis of trend growth

PwC focus on revenue growth of 3.6% per annum, but growth in revenues largely reflects ticket price inflation *not* underlying growth in concert/event attendance. PwC's own data shows that attendance is only expected to grow by 0.3% per annum.

- Using the exact same data as PwC but based on attendance figures as opposed to revenue/price inflation, the estimated attendance growth is 0.3% per annum as opposed to 3.6% in revenue terms.
- Despite being more relevant, this number is not reported in the PwC report alongside the forecasts for other variables.
- ekosgen agree that attendance growth is more relevant as their entire analysis is based on attendance/ticket growth (modified in arbitrary ways as is discussed in next slide).

PwC's case for event growth relies largely on non-concert growth (e.g. in sports and e-sports), but concerts remain the key driver of demand for arena space and are forecasted to have flat growth. PwC rely on high growth in demand for events like darts and e-sports which cannot credibly fill a 23,500 capacity arena.

- Concerts currently account for 64% of arena events in the UK and 70% of events at the MA. This segment has seen no growth at all in the last 4 years. PwC appear to believe growth in sports and e-sports could fill the New Arena, but these are niche sources of demand (concert demand for arena capacity is 8x sports).
- PwC's high revenue growth figures depend on niche categories like Darts (+20%) which appear less relevant to fill a venue like the one proposed. See more detail on next slides.
- The argument that there is potential for an English basketball franchise rests on shaky evidence (the observation that there is demand for the London NBA game once a year). The Manchester Giants, previous MA tenant, now play in a repurposed 5-a-side football centre in front of very modest crowds of a few hundred spectators. Even the GB national team plays at a basketball centre with temporary seats, in Gorton. These examples are indicative of the lack of demand there is for basketball in the UK.
- PwC dismiss data on other segments (e.g. comedy and dance), which its data show are *declining* on a UK-wide basis. PwC justify this on the basis that this is "one of the smaller components of the market". But this category is actually larger than the Sports segment (£70 vs 50m) which PwC rely upon heavily to support their analysis.

PwC's claim that underlying growth could support 4-5 new arenas relies on untenable assumptions. PwC assume that all their assumed growth would accrue to new arenas. This ignores the capacity of existing venues to capture part of this growth. Further, they ignore that much of the growth they are estimating is due to inflation, not a rise in attendance volume that would generate a need for increased arena capacity.

Overview of flaws in the ekosgen analysis of trend growth

ekosgen estimate/assume growth in attendance under a number of scenarios. The growth under each scenario is then distributed across regions to conclude that there would be sufficient market expansion in Manchester for the New Arena to operate profitably.

There is a disconnect in the variables modelled by PwC and ekosgen. ekosgen (rightly) focus on growth in attendance volume rather than the growth in revenues analysed by PwC. However, ekosgen construct forecasts for attendance growth which are inconsistent (and much higher) than in the PwC report.

As with PwC, the UK market growth estimate rests on an analysis that is both selective and flawed:

- Actual data shows that the attendance growth was **0.3%** per year over the past 4 years.
- This number is entirely ignored by ekosgen who do not report it, even though it derives from the main source of data used by ekosgen (National Arena Association 2014-2018) so it seems clear they had access to it.
- Only growth figures *by category* are reported. These are then individually (arbitrarily) modified to obtain a much higher attendance growth of up to **5.7%** per annum in Manchester. This estimate is assumed to remain constant for at least 10 years resulting in a market that doubles in size by 2030.

ekosgen's underlying market growth estimate is asserted rather than supported by evidence:

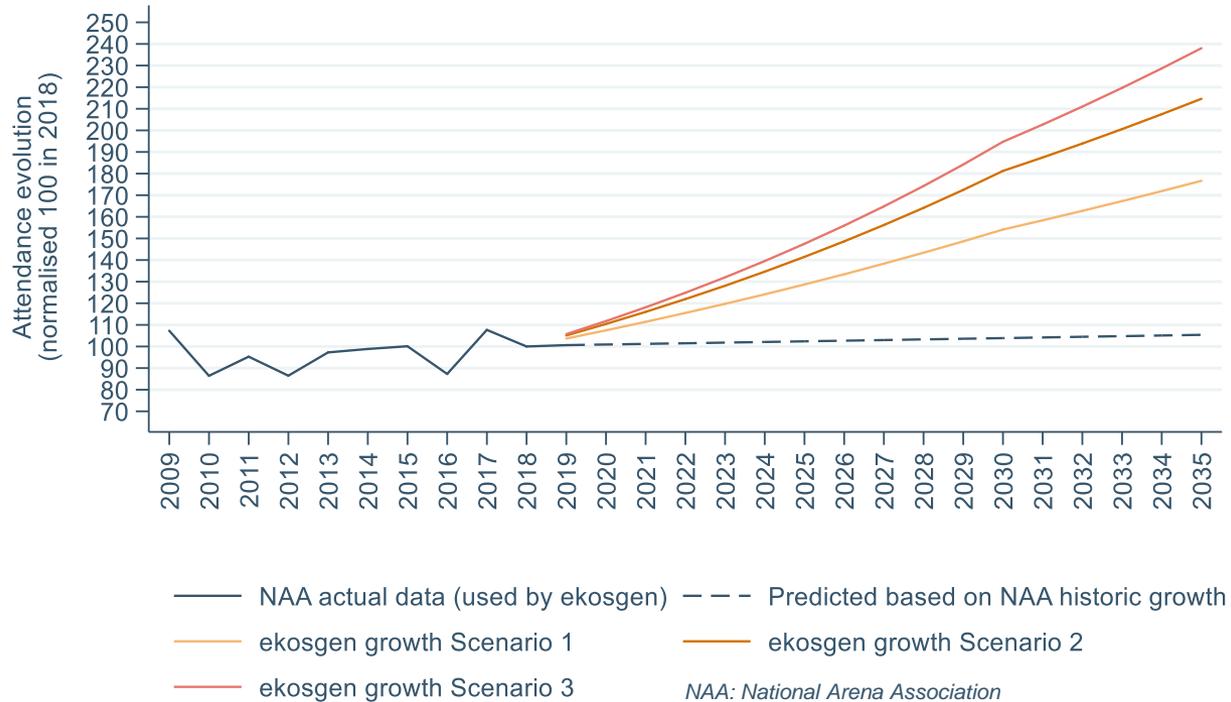
- ekosgen takes a selective approach which relies on niche categories (e.g. darts and basketball) and anecdotal evidence, some being clearly less relevant for 23,500 capacity arena.
- Results entirely stem from adjustments made on actual growth figures of the Concert and the Other categories, while actual growth figures are much more modest or even negative.

ekosgen's redistribution assumptions are also flawed:

- The underlying methodology is not fully explained but results in a very high proportion of forecasted growth being allocated to the Manchester region.
- From what we understand of ekosgen's methodology, growth is allocated proportionally to capacity *post-entry* (*i.e. it is effectively assumed that the larger a venue is built the more demand it will generate*). This assumption that “if you build it they will come” is effectively circular and amounts to “assuming ones conclusion”.

As a result of these flawed assumptions, PwC/ekosgen's forecasts imply a dramatic and unrealistic acceleration in growth relative to historic trends

This can be seen in the chart below which shows actual National Arena Association data in blue and ekosgen/PwC's projections in red (all data indexed so that 2018 level=100)



Note 1: there is a disconnect in 2019 between ekosgen scenarios and actual data because ekosgen provides an estimate for 2019 which already differs from the actual NAA attendance growth figure.

Note 2: historic trends based on UK-wide NAA data (used in ekosgen's projections for Manchester). Using Manchester-specific trends would show an even more abrupt difference between past experience and ekosgen's projections.

PwC and ekosgen are inconsistent in their growth assumptions, with evidence of cherry-picking data that gives higher growth

Both PwC and ekosgen aim to estimate market growth. As discussed in previous slides, PwC and ekosgen's methodology are inconsistent in at least two main aspects:

- **Metric used:** revenue (PwC) vs attendance (ekosgen).
- **Data used:** actual NAA data (PwC) vs mix of actual historic data and arbitrary assumptions on categories with limited/negative historic growth (ekosgen).

Both reports also cherry pick figures:

- **PwC:** total attendance growth is not shown/used in the analysis.
- **ekosgen:** data used differs by category and is often simply *assumed* based on "market intelligence" or anecdotal evidence.

When we combine these approaches in an objective manner using (i) attendance and (ii) actual data, the estimated growth is 0.3% per year. This means attendance will be 2.9% higher by 2030, far below the level necessary to support two profitable venues according to our breakeven analysis. And this does not even account for the Covid-19 crisis.

Inconsistencies across the two reports and cherry picking of growth figures by PwC and ekosgen

	PwC		Ekosgen (scenario 1)	
	Revenue growth	Attendance growth	Revenue growth	Attendance growth
Comedy	2014-2018 CAGR* NAA data	Not used	Not used	2012-2018 CAGR NAA data (2014-2018 growth figure is much lower at 0.5%)
Family	2014-2018 CAGR NAA data	Not used	Not used	2014-2018 CAGR NAA data
Sport	2014-2018 CAGR NAA data	Not used	Not used	? (growth of 6% not sourced)
Other	2014-2018 CAGR NAA data	Not used	Not used	2014-2017 (2014-2018 growth figure is much lower at -6.8% + ekosgen made a mistake in the 2014-2017 calculation)
Total	2014-2018 CAGR NAA data	Not presented (actual figure is 0.3%)	Not used	Combining cherry-picked/assumed numbers above

NAA: National Arena Association.

*CAGR: Compound Annual Growth Rate.

PwC and ekosgen do not report NAA attendance growth data despite this being their chosen source and the best metric

The next two slides show how PwC and ekosgen cherry pick the data they relied upon and selectively present the most favorable figures and ignore the most relevant one.

Both reports rely on NAA (National Arena Association) data over the 2014-2018 period, but are selective in which data series they report. Both reports omit to show the most relevant data point over that same period of time, namely the **NAA UK-level attendance growth for all categories combined**, which happens to be 0.3% i.e. to show flat growth overall. This is most relevant data point since it takes into account the fact that the Concert category represents a much greater share of total attendance than other categories that PwC and ekosgen prefer to put forward such as Sports.

- The first of the next two slides provides an overview of the NAA tables and figures reported in each of PwC and ekosgen reports covering the 2014-2018 period. These are quite detailed, and provide figures on overall revenue growth for *all categories*, revenue growth by category, attendance growth *by category* etc. However, in none of the reports is the average attendance growth for all categories reported.
- The subsequent slide then discloses for transparency the full raw database in a neutral way, revealing that the average attendance growth for all categories at the UK level is 0.3%, a rate which is wholly inconsistent with the much more optimistic projections made in the two reports.

We note again that PwC and ekosgen are inconsistent with their methodology: PwC does not report attendance growth (relying instead on revenues) while ekosgen report attendance growth (but replace the actual growth rates in the NAA data with their own arbitrary, and higher, assumptions).

A side by side of the forecasts used by PwC and ekosgen

Cherry picking and lack of transparency on historic overall attendance growth

By category, attendance numbers are reported in both the PwC and ekosgen reports:

Music Concert Market

	2014	2015	2016	2017	2018	CAGR
Events	1,101	1,111	1,087	1,121	1,098	0.1%
Revenue ('000s)	£326,654	£365,921	£320,523	£438,508	£397,597	3.8%
Attendance ('000s)	7,209	7,739	7,046	8,253	7,342	0.5%

Source: NAA and PWC

Limited growth on the main Concert category in attendance terms. This number will be modified by ekosgen

Sports Market

	2014	2015	2016	2017	2018	CAGR
Events	222	285	303	281	334	10.8%
Revenue ('000s)	£29,066	£37,573	£51,188	£45,959	£50,489	15.0%
Attendance ('000s)	910	1,120	1,234	1,227	1,372	10.8%

Source: NAA and PWC

Family Market

	2014	2015	2016	2017	2018	CAGR
Events	523	523	524	578	673	6.5%
Revenue ('000s)	£73,768	£79,151	£79,967	£73,562	£88,579	4.7%
Attendance ('000s)	2,038	2,133	2,080	1,883	2,177	1.7%

Source: NAA and PWC

Other

	2014	2015	2016	2017	2018	CAGR
Events	354	257	132	344	272	-6.4%
Revenue ('000s)	£79,065	£56,581	£24,979	£81,483	£67,093	-4.0%
Attendance ('000s)	2,381	1,707	713	2,395	1,793	-6.8%

Source: NAA and PWC

Negative growth in the Other category is dismissed by PwC/ekosgen reports while the size of the category is significant (50% larger than Sport)

But when it comes to showing the resulting overall market growth, total attendance growth is not reported

PwC's presentation of data: only events and revenues are shown. A similar table on attendance evolution is not reported

Events by category NAA

Events	2014	2015	2016	2017	2018	CAGR 2014-18
Concert	1,101	1,111	1,087	1,121	1,098	0.1%
Family	526	523	524	578	673	6.4%
Sport	222	285	303	281	334	10.8%
Other	354	257	132	344	272	6.4%
Total	2,203	2,176	2,046	2,324	2,377	1.9%
Number of venues	21	20	20	22	22	

Revenue by category NAA

Revenue (£'mn)	2014	2015	2016	2017	2018	CAGR 2014-18
Concert	327	366	321	439	380	3.8%
Family	74	79	80	74	89	4.7%
Sport	29	38	51	46	51	15.0%
Other	79	57	25	81	67	4.0%
Total	509	539	477	640	586	3.6%
Number of venues	21	20	20	22	22	

Source: Public information, PwC Analysis

ekosgen's presentation of data: attendance figures are shown but total line (adding up to 0.3% growth) is not reported

NAA Attendance Figures (in 000's)

	2014	2015	2016	2017	2018	CAGR
Music	7,209	7,739	7,046	8,253	7,342	0.5%
Family	2,083	2,133	2,080	1,883	2,177	1.7%
Sport/Esport	910	1,120	1,234	1,227	1,372	10.8%
Other *	2,381	1,707	713	2,395	1,793	-6.8%

Note: there is also an calculation error in the ekosgen table above: Family attendance in 2018/2014 is 2,177/2,083 which translates into a growth CAGR of 1.1% and not 1.7% as indicated above.

Looking at the unadjusted NAA attendance data in its entirety makes clear that attendance growth has been limited

For transparency the table below plots the full “raw” NAA attendance data along with category-level compound annual growth rates (CAGRs). This shows that attendance overall and in key categories has been flat.

Category	Sub-category	Metric	2014	2015	2016	2017	2018	CAGR 2014-18	Mean
Music		Revenue (£m)	327	366	321	439	380	3.8%	367
		Attendance ('000s)	7,209	7,739	7,046	8,253	7,342	0.5%	7,518
Sports	Ice Hockey	Revenue (£m)	10.18	11.83	15.83	13.10	16.02	12.0%	13
		Attendance ('000s)	318	348	386	354	433	8.0%	368
	Tennis	Revenue (£m)	6.56	6.77	8.36	7.33	7.18	2.3%	7
		Attendance ('000s)	205	199	204	198	194	-1.4%	200
	Darts	Revenue (£m)	2.82	5.10	7.42	6.14	6.88	25.0%	6
		Attendance ('000s)	88	150	181	166	186	20.6%	154
	Boxing	Revenue (£m)	2.56	4.79	6.89	4.03	6.25	25.0%	5
		Attendance ('000s)	80	141	168	109	169	20.6%	133
	Other	Revenue (£m)	7.04	9.55	12.14	14.80	14.43	19.7%	12
		Attendance ('000s)	220	281	296	400	390	15.4%	317
Family events		Revenue (£m)	74	79	80	74	89	4.7%	79
		Attendance ('000s)	2,038	2,133	2,080	1,883	2,177	1.7%	2,062
Other	Comedy	Revenue (£m)	64.32	45.61	12.60	67.29	51.02	-5.6%	48
		Attendance ('000s)	1,949	1,382	360	1,979	1,379	-8.3%	1,410
	Dance	Revenue (£m)	5.21	1.62	3.54	3.30	2.63	-15.7%	3
		Attendance ('000s)	158	49	101	97	71	-18.1%	95
	Misc.	Revenue (£m)	9.04	9.08	8.82	10.85	12.69	8.8%	10
		Attendance ('000s)	274	275	252	319	343	5.8%	293
Total		Revenue (£m)	509	539	477	640	586	3.6%	550
		Attendance ('000s)	12,539	12,697	11,074	13,758	12,684	0.3%	12,550

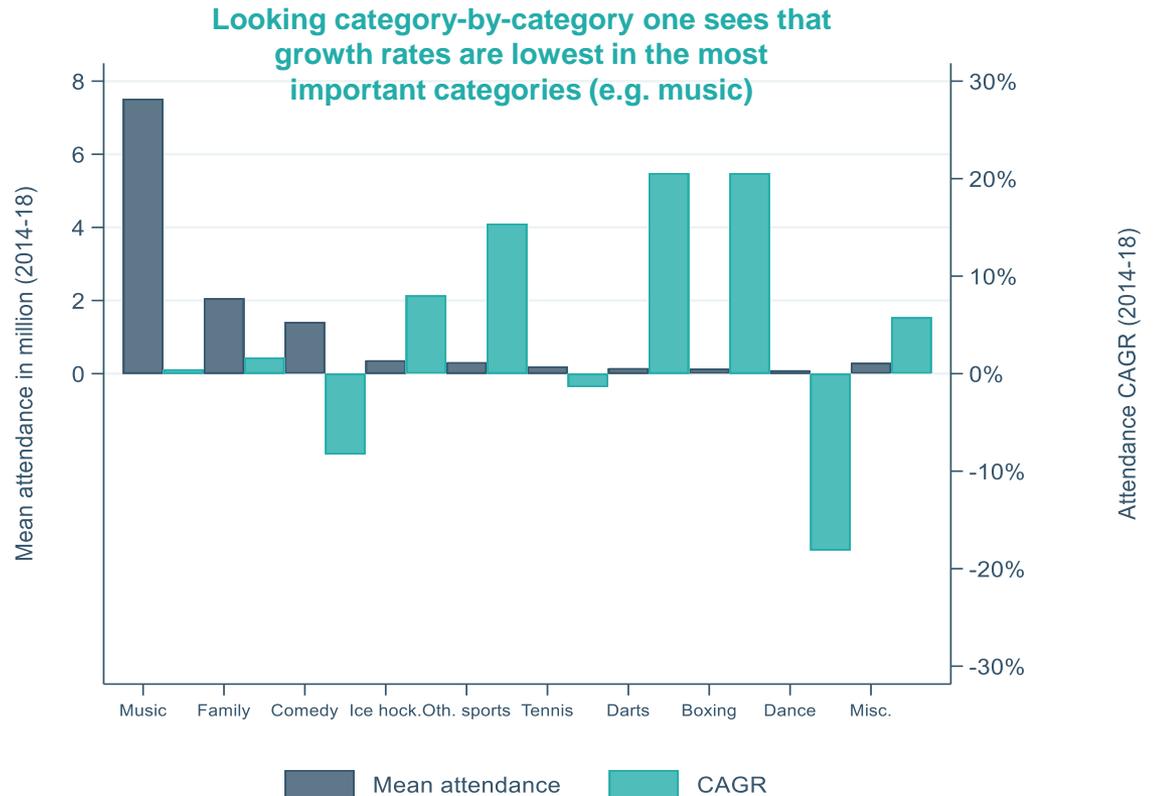
PwC and ekosgen growth potential rely on niche categories while growth is inexistent or negative on main market segments

PwC and ekosgen's calculation/justification of underlying market growth (CAGR) relies on niche categories, some of which are clearly of limited relevance for a >20k arena. Conversely, as is clear from the chart below, trends of main contributors (Concert, Family, Comedy) are either flat or declining. In the round, overall attendance has been flat over the past 4 years.

In the music category, which represents on average 60% of the attendance between 2014 and 2018, there has been only 0.5% of yearly growth on average over the past 4 years.

Sports, which is used to claim strong opportunities, is relatively low in terms of attendance. The high growth rate of this category is driven by niche categories (e.g. Darts, NBA and E-sports) that are less likely to fill a 23,500 capacity arena on a regular basis while Tennis is declining.

The Other category includes Comedy, Dance and Miscellaneous has been drastically declining between 2014 and 2018. It is dismissed by PwC/ekosgen while being 50% bigger than Sport in terms of attendance or revenue.



Notes: based on UK-level NAA figures used by ekosgen. CAGR: "Compound Annual Growth Rate"

Further detail on ekosgen's methodology (1/2)

Arbitrary assumptions are made which overstate market growth potential

2014 to 2018 attendance growth was around 0.3%/year at the UK level and declined in Manchester. ekosgen make arbitrary adjustments to what historic data is included to make forecasts or simply assert alternative numbers. This acts to substantially increase forecasted growth, but no real analysis or justification is provided.

Category	Actual data growth of attendance 2014-18	ekosgen forecast (2018-30)	How does ekosgen come up with its growth forecast?	CRA comment
Concert	+0.5%	+1.3% to +1.8%	1.3% is based on a longer 2012-18 trend instead of 2014-2018	Cherry-picked: no apparent reason to select different time period except that it gives a higher figure
Family	+1.7%	+1.7% to +2.4%	1.7% is found applying the 2014-2018 growth rate. Other rates are assumed.	No major issues (uses actual data which mirrors the PwC report).
Sport	+10.8%	+6.0% to +9.0%	Reducing the 2014-2018 growth rate.	No indication on how the 6% figure is found. Acts to reduce overall growth forecast, but downward impact is much smaller than the upward modifications made on bigger categories like Concert and Other.
Other	-6.8%	+0.5% to +2.0%	Amending the 2014-2018 growth rate to reflect the variability of the category, the modest longer-term growth rates and emerging potential of new formats.	Drastic increase in growth made without justification. Likely calculation error. The estimated growth for 2018- could reflect the growth rate of 2014-2017 mentioned on page 24. However, this is a mistake in the calculation: the growth rate for 2014-17 is actually 0.2%.
Total	+0.3%	+1.9% to +3.0%	No justification/result from above assumptions.	Drastic increase in growth made without justification. Forecast is much higher than actual historic performance due to arbitrary assumptions made on Concert, Comedy and Dance categories.

Source: ekosgen report - Scenarios 1-3: Trend/Market Intelligence Based

Further detail on ekosgen's methodology (2/2)

ekosgen scenarios and redistribution methodology overstate Manchester market growth potential

ekosgen present 3 growth scenarios based on various assumptions:

- **Scenario 1:** Scenario 1 is meant to account for trends in ticket sales over the most recent and longer period but is explicitly stated not to include any “supply driven growth”. Incorporates “market intelligence” with regard to key sectors. This is deemed by ekosgen to be a very conservative approach.
- **Scenario 2:** Scenario 1 + Supply effects of new arenas. Deemed the most realistic scenario by ekosgen.
- **Scenario 3:** Scenario 2 + Strong development of new markets such as E-sports. ekosgen acknowledges that the scale to which these new markets can develop is very uncertain and even that its growth may only replace declining figures from other sub sectors of the market.

Unclear criteria used to then redistribute added demand across regions:

- Statements such as “Manchester is *likely* to account for *circa* 50% of the uplift in the northern market (p.44)” or “Growth *likely* in all arenas (p.47)” is vague and lacks economic foundation/empirical evidence or even clarity on how exactly market growth was redistributed across regions and to the New Arena specifically.
- From what we can reverse engineer, it seems that the share of UK-level growth that gets allocated to Manchester is equal to its capacity share accounting for MA and the New Arena capacities combined. Said differently: because the MA and the New Arena would represent 18% of the total large-arena UK capacity, Manchester gets allocated 18% of the growth estimated at the UK level, according to ekosgen, a fundamentally flawed approach.
- **Despite saying that Scenario 1 excludes “supply driven growth” (i.e. that opening an arena will in itself act to raise demand) this is in fact exactly what Scenario 1 does: higher capacity in Manchester is *assumed* to result in more events coming to Manchester even in ekosgen’s “conservative” analysis.**
- The lack of clear redistribution criteria also gives rise to potential **double-counting errors in the other two scenarios** whereby both growth estimates and their redistribution criteria account for supply led effects that would result from additional capacity.

Conclusion: PwC/ekosgen vastly overestimates market growth in Manchester

Estimates from the ekosgen report imply growth rates for Manchester of up to **95% by 2030** and **138% by 2035**. As evidenced in the previous slides, these are unrealistic and inconsistent with empirical evidence or historic trends and therefore cannot be relied upon.

A revised estimate using the actual **CAGR of 0.3%** and considering that the same growth would occur in Manchester, yields a much lower growth of **3.5% and 5.0% respectively by 2030 and 2035**.

Even if we redistribute proportionally to capacity accounting the capacity for the New Arena (i.e. this implicitly assumes strong supply-led effects as we now allocate twice as much in Manchester as capacity doubles), the revised total growth by 2030/2035 remains very modest amounting to **7% and 10% respectively**.

In addition, we note that ekosgen's first scenario seemingly accounts for supply-led effects in the redistribution share allocated for Manchester while by ekosgen's own definition they should not. Therefore estimated growth is not even correct (being overestimated) as per ekosgen's own methodology.

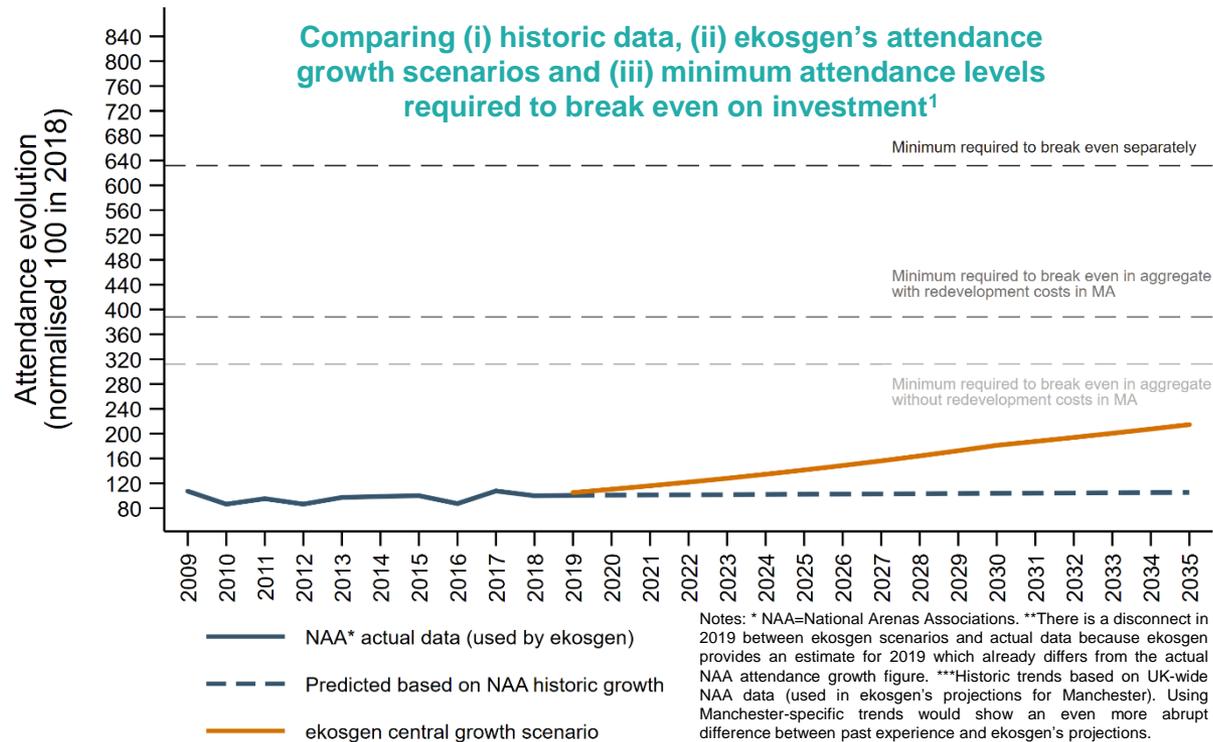
	ekosgen Scenario 1	ekosgen Scenario 2	ekosgen Scenario 3	Revised estimate based on past trends
	UK Market			
Annual attendance growth	1.9%	2.5%	3.0 %	0.3%
Total attendance growth by 2030	25%	34%	43%	3.5%
	Manchester			
Annual attendance growth	3.7%	5.1%	5.7%	0.3%
Total attendance growth by 2030	54%	81%	95%	3.5%

UK-level attendance growth is utterly unrealistic in light of past trends.

Moreover, allocation of UK market growth at the Manchester level is also flawed and unrealistic: without clear justification, a significant share of the market growth would get allocated to Manchester according to ekosgen.

This results in a steep compounded growth of up to 5.7% a year amounting to a total increase in attendance of 95% by 2030.

Even assuming ekosgen's unrealistic attendance growths, both venues would not break even on their investments



Even assuming ekosgen's unrealistic attendance growths, both venues would not break even on their investments.

This result holds even if we assume higher profits *per attendee* compared to what is currently achieved at MA. A higher profit per attendee could be driven by ticket price increase (e.g. premium seating) or additional sales, which are both uncertain. A higher profit per attendee is even less likely if both venues of this size are operating simultaneously due to increased competition. Still, to prove our results would hold even if profits per attendee were to increase, we have considered a scenario where we cumulatively assume both (i) ekosgen's utterly unrealistic *attendance* growths and (ii) a 25% increase in profit *per attendee*. Even then, it would not suffice for both venues to operate profitably in Manchester, as is shown in the above figure.

Covid-19 effect

PwC acknowledge that “certain risks are not directly taken into account in [their] analysis which could impact the market for a new arena” and “an economic downturn could reduce the disposable income and consumer spending on attendance at live events” (slide 29). Still, PwC’s and ekosgen’s reports take no account of the potentially devastating impacts of Covid-19 on Manchester city centre.

Covid-19 has clearly hit live entertainment harder than just about any other sector of the economy.

The New Arena will not be built until 2023 at the earliest after which one would hope the public health issue will have passed. However, **live entertainment is clearly one of the last sectors of the economy to be released from lockdown and there is a tail risk that event demand could be suppressed long term** through some combination of restrictions on large gatherings, economic downturn or other factors (e.g. restrictions on travel making multi-national tours less feasible).

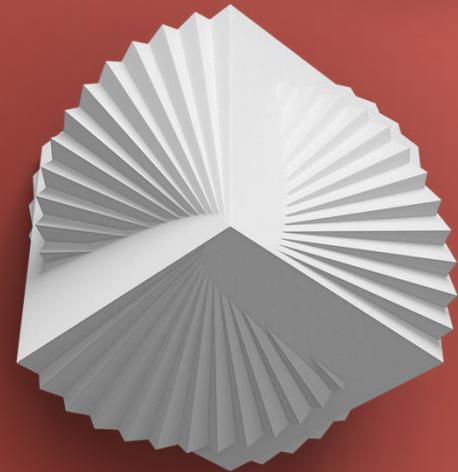
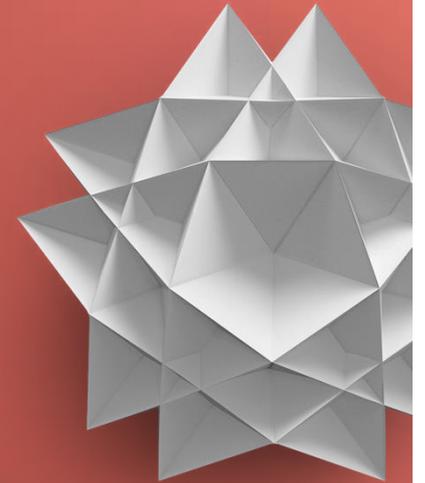
Costs are expected to increase as venues will have to hire additional personnel and guarantee sufficient infrastructure to meet the higher safety and health regulations which are likely to be enacted.

Against this background, ekosgen's prediction scenarios assume an attendance growth of 12% to 18% by 2023 in Manchester which appears wholly unrealistic in the current economic and social context, in which we have seen total closure of events, and given the likely longer-term implications of Covid-19.

While it is difficult to assess precisely its full impact, the Covid-19 crisis will undoubtedly have implications for the financial durability of the MA hence its ability to survive in a two-arena city.

Part 3

Supply-led growth would
not be sufficient



Would the New Arena's catchment be twice MA's?

PwC state that, if the New Arena were to have an **iconic status like the O2 Arena**, its catchment area would increase by 50% or would even **double** that of the Manchester Arena. This is not credible.

First, any crude comparison with the O2 is misconceived as it ignores that the O2 is specific for multiple reasons (for example, being in a capital city with three times the population size, a significantly higher disposable income per capita and therefore a substantially larger ticket buying market).

Second, leaving the previous considerations aside, **actual catchment data reveals a completely different picture**: the O2 Arena does not have anything close to twice the catchment area of the Manchester Arena. Their 80%-of-sales catchment areas (i.e. the area that captures 80% of their sales measured in driving distance) is **almost identical**.

Third, even if the catchment were to be bigger, it is not clear that it would attract many more people since it would then overlap more significantly with neighbouring venues e.g. in Liverpool, Leeds, Sheffield, and Birmingham.

The O2 does not have a bigger catchment than MA: PwC's premise is incorrect

Venue name	80% catchment area (normalised at 100 for the O2 for confidentiality reasons)
The O2 Arena	Normalised to 100
Manchester Arena	102 (i.e. Manchester Arena's 80% catchment area is 2% larger than the O2s not 50% smaller as assumed by PwC)

Note: data covers 2018 for the O2 and June 18 – June 19 for the MA. Catchments calculated in km calculated across all events played in the venues. Results robust to using equivalent data for the O2 covering just the summer months

The New Arena is unlikely to bring many more events to Manchester (1/3)

The potential to attract events from London is overestimated

PwC and ekosgen argue that a new venue could be filled with the ~35% of events which currently play London, but not Manchester.

But a closer look shows that this is not supported by the evidence. The Manchester Arena already does better than any other UK venue in attracting events that also play London and among the remaining ~35% the most common reason to not play Manchester in the same year is that these are London-centric events or touring events which have already or intend to play Manchester the year before or after London.

Played/not played in Manchester	% performance
Played in Manchester (MA or smaller venues)	63%
Proportion of events at O2 not playing Manchester in 2019	37%
Reasons not played in Manchester	% performance
Competing event in Manchester	0.3%
Entertainment event London-based	5.9%
Local London religious content	4.0%
London-centred TV ceremony	3.1%
Multiyear Tour Upcoming Manchester/Manchester past	5.0%
New test event touring potential	3.4%
No Manchester audience	3.1%
On sale but cancelled	0.9%
Recent Play Manchester/Test Market	0.6%
Sport London Based Performer	1.6%
Sport event London base	5.9%
Proportion of events at O2, but not Manchester, in 2019 that could have been brought to Manchester with a more attractive venue	3.1%

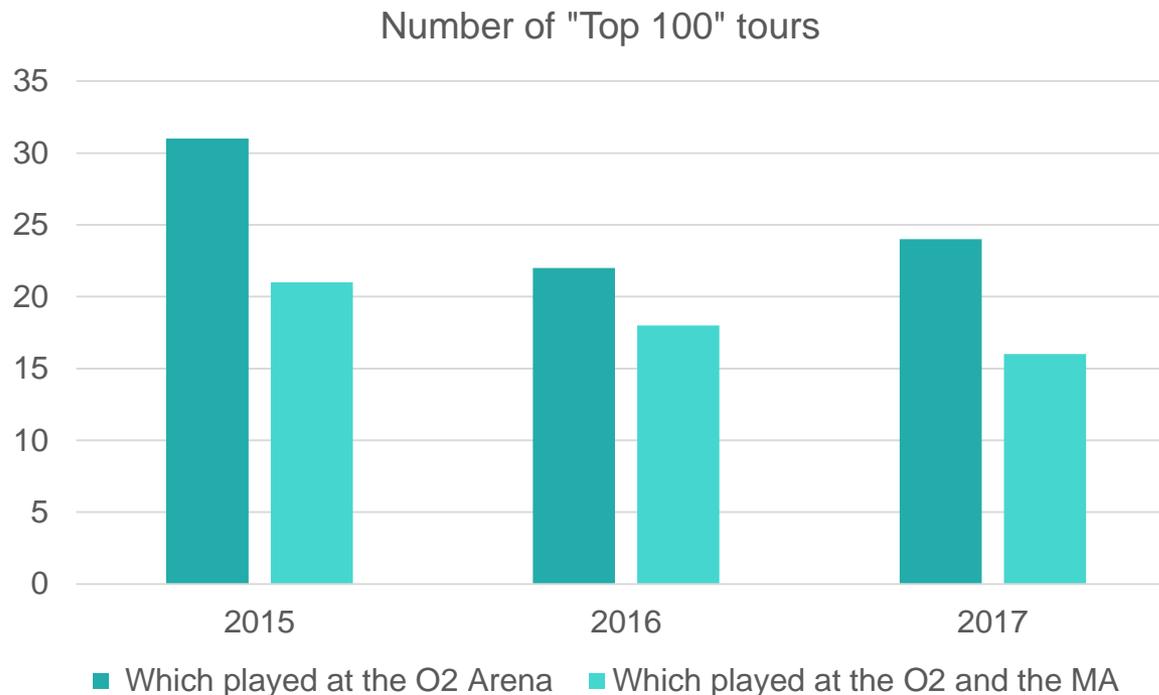
Source: events playing the O2 and Manchester in 2019. ASM were then asked to review event by event to determine the reasons why these events did not play the Manchester Arena. 3.1% refers to those events which played the O2, but not Manchester, but may have done so if it had a more attractive venue

The New Arena is unlikely to bring many more events to Manchester (2/3)

The MA has highest overlap with the O2 – more than any other arena in the UK

The MA also has the highest overlap with the O2 including for top 100 international tours. Given there are other population centres in the UK of comparable size, this is not what one would expect if the MA was held back by venue-related issues such as layout etc. (as suggested by OVG).

This further confirms that the limited share of major events that played in the O2, and did not in Manchester, were not played at the MA for good reasons which for the most part had nothing whatsoever to do with a lack of floor layout flexibility. In that sense the New Arena is unlikely to attract many more events than the MA.



Note: based on Pollstar data that is unreliable/non-representative in 2018 (AEG - the operator of the O2 and other venues, stopped contributing to the publication after the Oak View Group acquired Pollstar in December 2017).

The New Arena is unlikely to bring many more events to Manchester (3/3)

PwC's assertions that the New Arena would attract events which would otherwise not come to Manchester are not evidence based

PwC list a number of recent events that were not secured in the MA and future opportunities which could play in the New Arena. However:

- It is not clear that these events would play in the New Arena if they did not play in the MA. They could have decided **not to play in Manchester for good reasons**.
- In 2 out of 9 instances on past events, the reason given is **“venue too large” or “venue hire costs prohibitive”**. Clearly, a new larger and more expensive venue will not resolve these issues.
- It is argued that these events would be attracted by an “iconic” status of the New Arena and state of the art facilities and the flexibility of having 2 arenas. However, even assuming this were to be true, **one would need (to be consistent with the argument) to account for the increased competition that would result from the opening of the Sphere in London**.

As previously explained, the vast majority of events that did not play the MA chose not to do so for a good reason, independent of the venue itself. The new Arena would not make any difference in that respect.

List of opportunities for the New Arena according to PwC

Summary of recent events not secured

Nature of event	Date	Reason not secured
Tennis	Nov 2016	Could not secure dates for length of tenancy
Tennis	Noc 2017	Could not secure dates for length of tenancy
Netball	Apr 2018	Dates not available
Netball	Apr 2019	Dates not available
Athletics	Feb 2020	Could not secure dates for length of tenancy
Tennis	Feb 2020	Venue too large and hire costs prohibitive
Tennis	Mar 2020	Could not secure dates for length of tenancy
Athletics	Spring 2020	Venue hire costs prohibitive
Tennis	Nov 2021	Additional facility requirements

Future potential event opportunities

Sport	Event
Athletics	IAAF World Indoor Athletics Championships
Badminton	World Individual Badminton Championships
Basketball	FIBA Basketball Olympic Qualifiers NBA Pre Season
Boxing	European Boxing Paris 2024 Qualifiers British Gymnastics Championships
Gymnastics	European Gymnastics Championships World Artistic Gymnastic Championships Gymnastics World Cup
Netball	Netball International Series Netball Quad Series Netball Super League Finals / Semi Finals Netball World Cup
Swimming	FINA Swimming World Championships
Table Tennis	World Table Tennis Championships
Tennis	ATP Tour Finals Davis Cup Tennis Finals Fed Cup Tennis Finals WTA Tour Finals

Source: Information provided by market sources

Leeds and Liverpool cases do not evidence supply-led effects (1/3)

General flaws in PwC and ekosgen comparison to claim “supply-led” effects

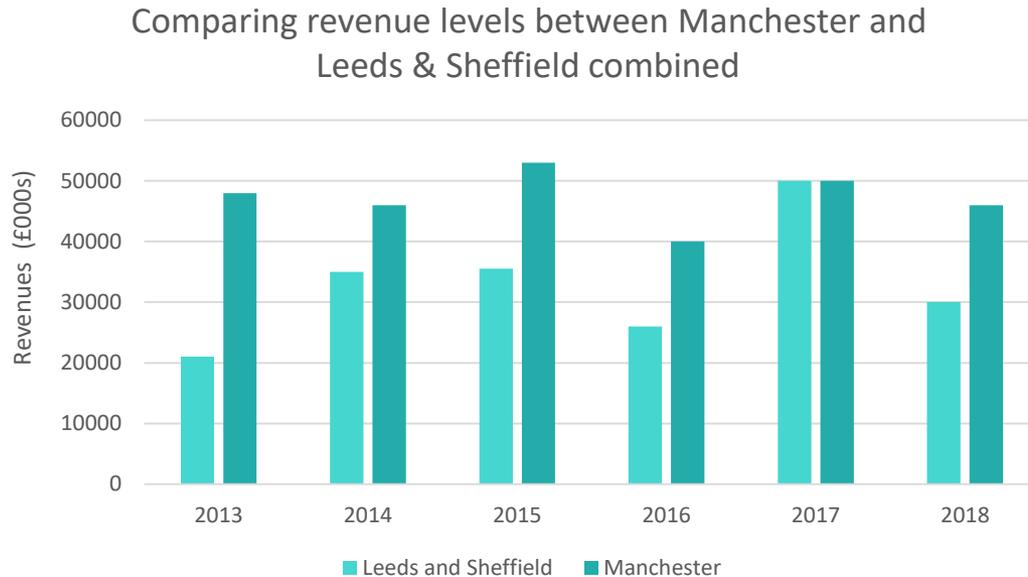
PwC argue that Manchester's stable revenues combined with the growth experienced in Liverpool and Leeds, in which new arenas were opened, is evidence that ***“supply has been a catalyst for growth in the regional market”***.

But careful review of data and facts does not support this conclusion:

- **Leeds/Sheffield was under-served:** Before the opening of the First Direct Arena (Leeds), a region with similar catchment population as Manchester and limited overlap with the latter was only supplied with one arena: FlyDSA Arena (Sheffield) with 13,600 capacity. The MA, on the contrary, is the best served catchment area in the UK (see later slides).
- **Liverpool and Leeds were not expected to have material impact in the MA due to limited overlap on their catchments:** Differences in overlap and arena characteristics explain better why the two new arenas did not have a material impact on the MA than the supply-led growth thesis advanced by PwC.
- **On the other hand, the New Arena can be expected to have a material impact on the MA for two main reasons. First, its catchment will perfectly overlap with that of MA. Second, it will be large enough to compete for the same calibre of artists/events.**

Leeds and Liverpool cases do not evidence supply-led effects (2/3)

Leeds and Sheffield: under-served before the opening of the First Direct Arena



Prior to the opening of the First Direct Arena (Leeds), the catchment area for Leeds/Sheffield was only supplied with a 13,600 seats arena in Sheffield. This catchment area is of similar size to Manchester's and has limited overlap with the latter. These conditions that allowed for the new venue in Leeds to have the impact in growth that PwC boast **are not present in Manchester:**

- The MA catchment population is the best served in the Northern region.
- The MA has larger revenues than Leeds and Sheffield combined despite lower capacity and similar catchment which is indicative of less room for supply-led growth.

Leeds and Liverpool cases do not evidence supply-led effects (3/3)

The New Arena will have the impact that Leeds and Liverpool were never expected to have

PwC argue that the openings in Liverpool and Leeds had no material impact on the MA and that, as such, the New Arena will not have any material impact either. This argument omits to take any proper account of: (i) the very close proximity of the MA and the New Arena; (ii) the overlapping catchment areas of the MA and the New Arena; (iii) similar capacities of MA and the New Arena (which are both much larger than Leeds and Liverpool).

Venue capacity differences

Equipped with a capacity of around double that of Liverpool and Leeds, the proposed venue will attract more similar events to those currently hosted by the MA than Liverpool and Leeds ever did.

Arena	Capacity
Manchester Arena	21,000
OVG's proposed New Arena (Manchester)	23,500
First Direct Arena (Leeds)	13,781
M&S bank Arena (Liverpool)	11,000

Catchment overlaps differences

As PwC themselves explain, Leeds and Liverpool have very limited overlap with the MA (25% and 44% respectively). By contrast the New Arena is to be located a mere 2.9 miles away from the MA resulting in nearly perfectly overlapping catchments.

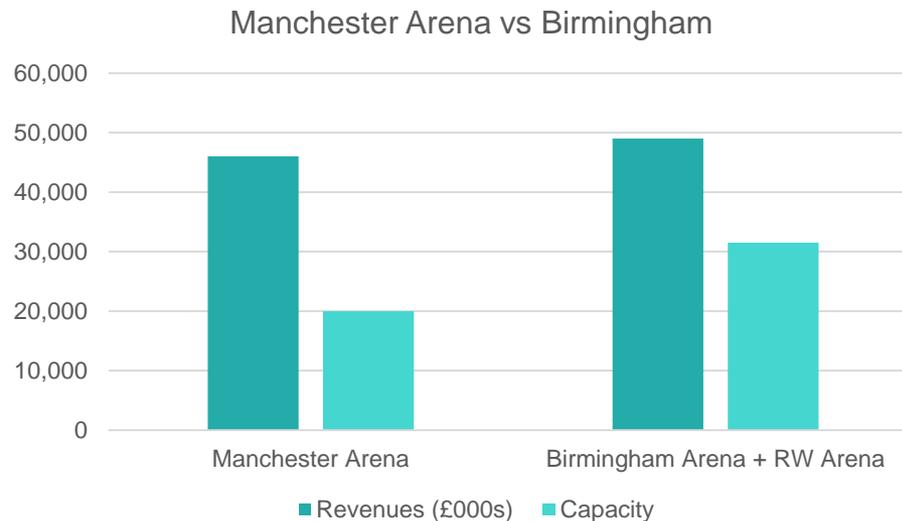
Naturally, these differences in location do matter when comparing the potential impact of the opening of a new venue.

With limited overlaps, the impact is expected to be limited too. Thus this cannot serve as a ground to claim “supply-led” effects. Even less so in Manchester where the New Arena is to be located next to the MA.

Despite lower capacity, Manchester generates similar revenues to the two arenas in Birmingham combined

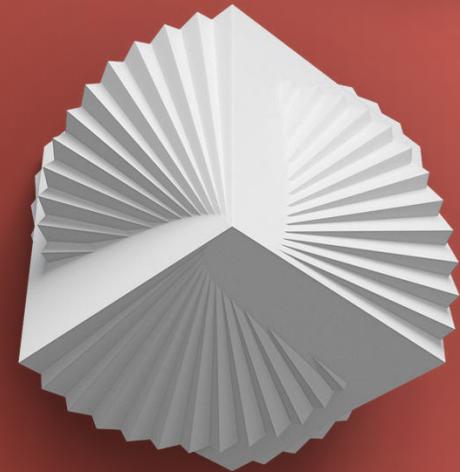
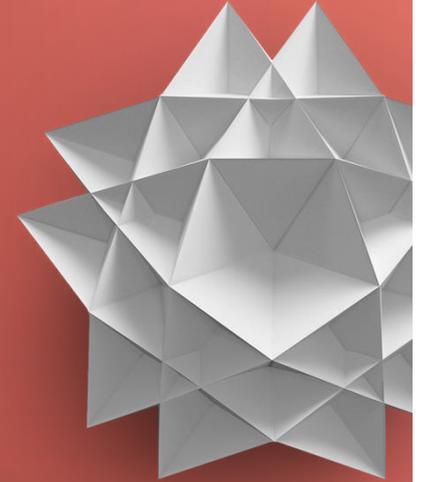
PwC and ekosgen argue that Birmingham is a good example of a successful two-arena region. However:

- **Manchester generated in 2018 £46M in revenues, closely matching the revenues generated by two-arena Birmingham (£49M)**, despite having lower absolute capacity and a similar catchment area.
- This comparison suggests that, contrary to what PwC argued, the Birmingham two-arena experience is not indicative of supply-led growth occurring in Manchester. **PwC acknowledge this weakness in their argument** when they concede that a *“step up would be required from what Birmingham currently delivers (p.50)”*.
- Moreover, the growth in revenues in Birmingham was achieved in part thanks to **common ownership of the two venues which allowed for, as PwC remark, “more efficient, complementary, programming offers”**. This type of synergies would not occur in a hypothetical two-arena Manchester so PwC overestimate potential growth accruing from one additional venue.
- Also, the Birmingham arenas do not pay landlord rent and do not have to return on redevelopment or investment cost.

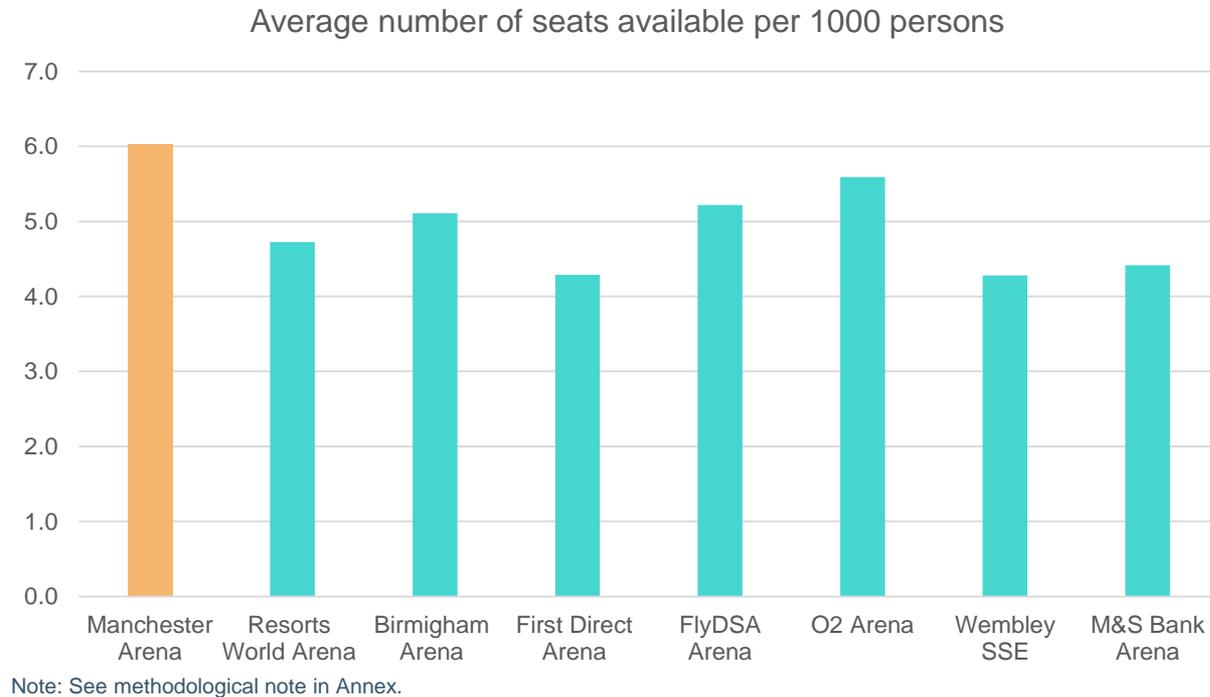


Part 4

Manchester is not
underserved relative to other
cities



Manchester is better served than other areas in the UK (1/2)



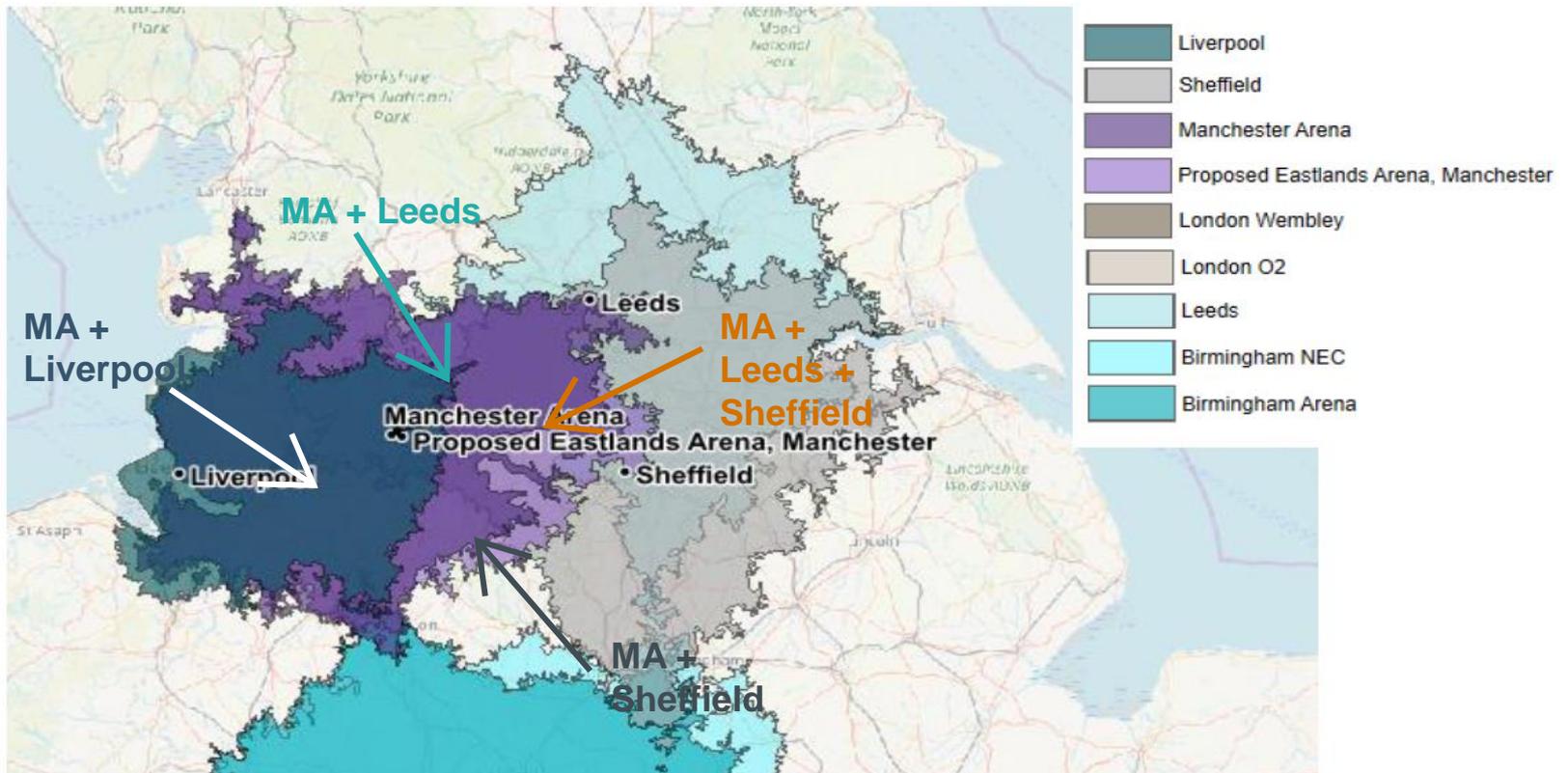
Manchester is already well served with a number of arena seats per 1000 persons that is already higher than any other catchment area of other UK venues. Indeed, building on PwC's own data, the **average number of seats per capita is higher in the Manchester catchment than for any other neighbouring venues, including The O2.**

The reason is that the MA catchment overlaps with many surrounding large venues in Liverpool, Leeds and Sheffield. As a result, many people in the Manchester catchment have multiple arena choices, making that region particularly well served.

¹ See PwC data on catchments (p.45, 49, 51).

Manchester is better served than other areas in the UK (2/2)

The Manchester Arena catchment appears almost saturated already



Notes: This map showing 60-minute drivetime catchment areas comes from the Grant Thornton report "Manchester Arena Economic Impact", July 2019. The arrows are pointing at "people" that can go to multiple arenas.

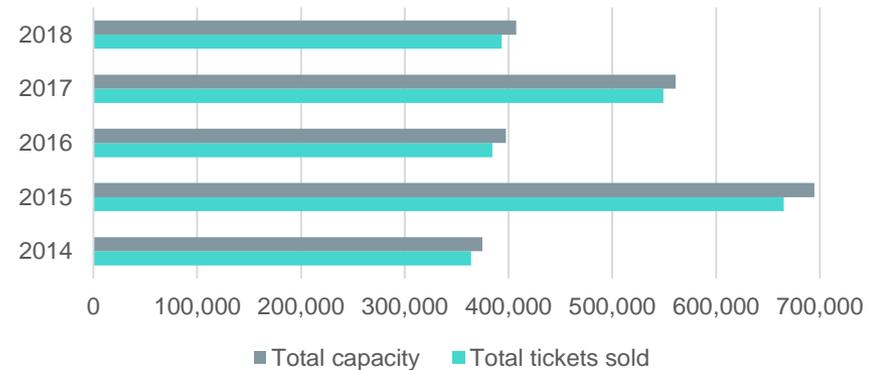
The Manchester Arena is **in the middle of a 4-large arena** overlap within a 60-minute drive time. Most other arenas in the UK have one or two within that distance.

The MA is not capacity constrained. PwC's analysis to the contrary is misleading (1/2)

PwC report that the MA's "utilisation" is high (near 95-100%). But PwC's analysis is confused and misunderstands what it means to measure "capacity" in this industry:

- There are two ways a venue might be "at capacity":
 - 1) if it is unable to add more events (i.e. all potential "event dates" are full) or
 - 2) if it is unable to receive more attendees on any given night (i.e. if the venue is a "sell out")
- PwC's measure of "utilization" does not capture either of these concepts: PwC compares the number of tickets sold to the number of tickets made available for the event in question.
- So, for example, if a promoter decided to put 5,000 tickets on sale and sold 4500 PwC would record this as "90% utilisation", but this is clearly incorrect: the MA can accommodate ~20k attendees.
- One can see the flaws in the PwC approach by looking at changes in "capacity" over time: by PwC's logic the MA's "capacity" doubled from 2014 to 2015 and then halved again.
- Finally, we must also note that PwC conduct its analysis on Pollstar data which is unreliable for 2018 (AEG - the operator of the O2 and other venues, stopped contributing to the publication after the Oak View Group acquired Pollstar in December 2017).

PwC's measure of "capacity" varies markedly from year to year, showing that it is not a meaningful measure of the actual constraints on the MA...



... in fact the MA has spare capacity both in terms of available event days and ability to sell more tickets on individual nights, none of which is accounted for in their analysis to meet market growth in a sustainable city centre location.

The MA is not capacity constrained. PwC's analysis to the contrary is misleading (2/2)

Using accurate measures of capacity shows that the MA is not capacity constrained

The MA is rarely at capacity on individual nights. Only 8 events had attendance in excess of 18k notwithstanding MA's total capacity of ~20k. Some of this will reflect that some floor lay outs have maximum attendance below 20k, but even so clear that MA is not "topping out" regularly.

In addition, note that new egress routes with the redevelopment which will facilitate even larger capacity on the floor (as well as large productions) if there is demand for such events.

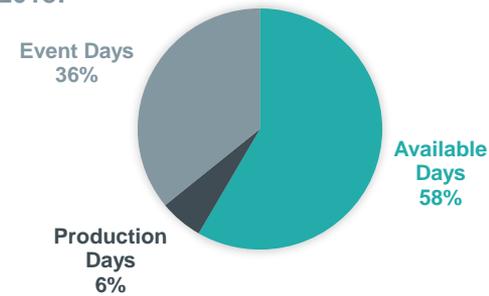
The MA could accommodate materially more event dates: we understand from ASM that the MA only hosts an event on 42% of days where an event could in principle be hosted. Moreover, with the redevelopment, the MA will be able to increase capacity for big productions thus increasing even further the spare capacity.

In light of this spare capacity, the fact that the MA has not experienced material attendance growth since 2008 suggests that demand in Manchester can be accommodated and is further evidence that Manchester is not able to accommodate a second large venue.

Split of the MA performances by attendance level in 2018:

Number of tickets per night	Number of performances	Total capacity	Mean capacity
>12k	164 (50%)	2,435,495	14,851
>12k;<15k	115 (35%)	1,631,119	14,184
>15k;<18k	41 (13%)	654,344	15,960
>18k	8 (2%)	150,032	18,754

Split across event days, production days and available days at the MA in 2018:

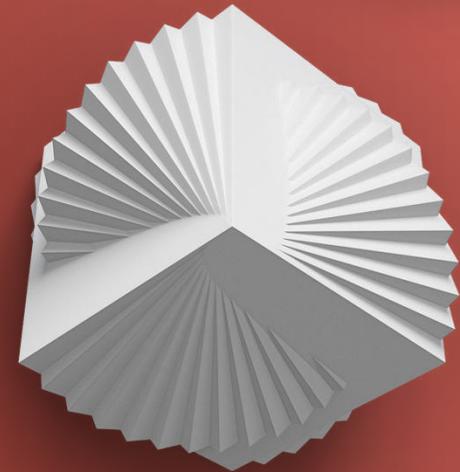
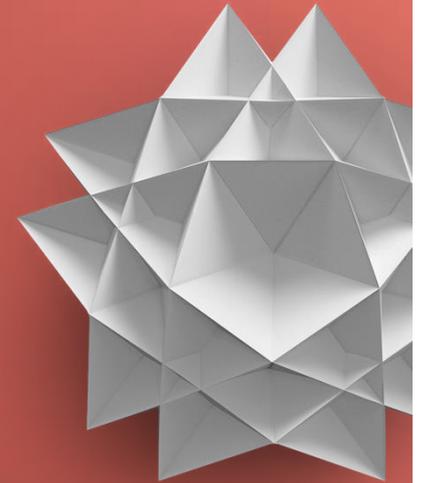


Manchester - revenue 2008 - 2018



Source: PwC analysis of Pollstar data

Annex



Density Analysis – Methodological note

- PwC catchment data was used for all the venues except for the O2 Arena, SSE Wembley and the M&S Bank Arena. For these three venues, given the lack of information in the PwC and ekosgen reports, estimates from the “Manchester Arena Economic Impact Assessment 26 June 2019” prepared by Grant Thornton (“GT report”) were used.
- PwC and ekosgen use peak-hour drivetime catchments as they argue they are superior to its off-peak counterparts reported by Grant Thornton.* We transform from off-peak to peak figures by assuming the catchment in the three venues would decrease in the same proportion as they did for the venues present in the PwC report. For London this assumption is quite conservative as traffic congestion is significantly larger than in other areas of the country. As such, we allow for overestimated peak-hour catchment areas for the O2 Arena and the SSE Wembley.
- The analysis is based on the average number of seats available for customers located in the catchment of a given arena. For the population in areas where the catchments overlap, the averages are added to account for the increased offer available. The figures in the chart are a weighted average between the averages of areas where there is no overlap and those where there is.
- The overlap considered between the Manchester Arena and the M&S Bank Arena is the one reported in the PwC report. The overlap used for the two venues in London is based on the map provided in Page 9 of the GT report which shows that the two arenas mostly overlap in the North East of London. According to the authors of the report: *“The London catchments are more separate, although there is some overlap in the North East of London.”* We use publicly available data on the population of London by sub-regions and include both the North and North East population in our estimated overlap between the two arenas. The inclusion of North London is to guarantee we are not underestimating the overlap. We obtain a 41% overlap between the two London venues which we then use to compute the density figures in the same way as we did for the other venues.

* Grant Thornton report, “Manchester Arena Economic Impact Assessment – Full report” dated 30 July 2019

Catchment areas and revenues

Catchment areas	Number of people in catchment area (million)		Revenues (2018, Millions)	Capacity
	Peak driving 60mn	Off peak driving time 60mn		
Manchester Arena	5.8	7.4	48	21,000
Resorts World Arena	6.2	7.4	22	15,685
Birmingham Arena	5.6	6.9	28	15,800
First Direct Arena	6.4	7.7	20	12,345
FlyDSA Arena	4.8	6	10	13,314

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Eastlands Arena Transport Assessment Review

11 June 2020

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Eastlands Arena Transport Assessment Review

11 June 2020

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About Blacc and Mott MacDonald

Working with transport agencies & operators **Blacc** has revolutionised how transport for major events is planned and delivered in several of the UK's leading City Regions, including Manchester. **Blacc** were embedded into Transport for Greater Manchester for nearly three years (2015-2018) enhancing event transport plans, operational delivery and strategic travel communications. Of Blacc director John Fryer, TfGM's Customer Director said "John worked with me at TfGM over a two year period, developing and implementing a range of new and innovative approaches to improve how we support some of the UK's highest profile events and ensuring these were embedded in new ways of working within TfGM and other organisations. His knowledge of the public transport sector (across all modes), ability to strategically plan and actively coordinate the transport system was a hugely important part in the successful delivery of events and development of other initiatives".

Blacc supported the immediate response to the 2017 Manchester Arena terrorist attack and the subsequent staging of events such as the Great City Games, Courteeners concert at Emirates Old Trafford, the Michael Carrick testimonial at Old Trafford and the One Love tribute concert.

Blacc is currently leading the development of a state of the art Regional Transport Coordination Centre in the West Midlands and is also advising the International Olympic Committee and transport agencies in Tokyo in preparation for the Olympic & Paralympic Games.

Mott MacDonald are a global engineering, management and development consultancy focused on guiding our clients through many of the planet's most intricate challenges. We are an industry leading organisation with Transport Planning being a core element of our business. Our Surface Transport Division covers the following skills and workstreams;

- Planning developments for both private and public clients
- Development control for local or national public sector clients
- Transport strategy and policy for local, national and international clients
- Business case and scheme feasibility
- Travel planning and smarter choices support
- Planning public transport schemes
- Event transport planning
- Traffic and Transport Modelling
- Rail and Operations Planning
- Traffic Engineering

Mott MacDonald provided strategic transport advice to a series of major developments, from Nugen Moorside, Cuerden Strategic Site, Liverpool and Everton football clubs as well as Station Gateways such as Carlisle and Manchester Piccadilly.

Mott MacDonald also successfully represent Local Planning and Highway Authorities with regards to major planning applications, their co-ordinated responses and the securing of appropriate contributions and mitigation measures.

Executive Summary

This technical review constitutes a combined series of inputs from Blacc and Mott MacDonald, with additional inputs from both Movement Strategies and the Air Quality Consultants, which can be found within the appendices of this document. The review has focussed on a series of key aspects of the Transport Assessment and associated documents written in support of the OVG Eastlands Arena planning application. The key aspects of focus are as follows;

- Trip Generation
- Sustainable Access
- Travel Demand Management and Mode Shift
- Site Accessibility
- Impact Strategic/Background
- Impact Local/Community
- Car Parking
- Proposed Mitigation Measures

The review has identified a series of weaknesses, inadequately evidenced assumptions and seemingly disregarded impacts associated with the transport submission. Of concern are the following key points;

- A Trip Generation methodology which assumes the mitigation measures will be successful prior to any due testing or further consideration, and incorporation of those measures into the assumed Mode Split analysis.
- Lack of available Metrolink capacity, particularly on combined Matchday and Arena event days, but also on Arena only event days.
- Significant highway impacts, which are not appropriately reported in the Transport Assessment.
- A noted car parking shortfall and a reliance on parking off campus at undefined locations.
- Limited mitigation proposals, some of which are merely copied from the Etihad Stadium expansion.
- A Framework Travel Plan which primarily focuses on 'Arena staff' travel options, with limited consideration of arrangements to support spectators.

The findings of this review suggest the combination of mitigation and proposed travel demand management is insufficient to prevent **severe** local, public transport network and wider highway network impact. Of key concern are combined event and matchdays, which is brought out within each of the mode considerations below.

Public Transport Resilience

- Current matchday events result in buses queued on Ashton New Road but are only able to complete one journey back to the city centre due to heavy pedestrian congestion.
- Bus travel times to the city centre increase from 5 minutes to 25-30 minutes on current matchdays.
- The TA acknowledges existing bus services are insufficient and proposes private shuttle services to meet demand. However, the TA fails to address the congestion problem caused by increased traffic on this route or provide any recognition of the scale of the bus shuttle operation that would be required, which would range in numbers between 24 and 74 double deck buses.

Metrolink

- No recognition of maximum number of trams which can operate on the route, and power unit limitations; the number of trams cannot simply be increased to meet demand on the scale proposed by this development.
- Available capacity on the Metrolink is already being breached on matchdays at present.

Rail

- Heavy rail provision near to the proposed site is virtually non-existent. The nearest rail station is Ashbury's – 1.7km away (22 minutes walking time) - it is unstaffed, has no customer facilities (including ticket buying) and is inaccessible (no step free access).
- Connections from Ashbury's are extremely limited with services only operating to and from Manchester Piccadilly to the Hope Valley and Glossop. The nearest mainline station from the Etihad campus (Manchester Piccadilly) is a 36-minute walk.
- Many rail services cease to operate from 10.30pm meaning customers must leave events early to ensure they meet their onward travel connections.

Walking and Crowd Movements

- The proposed Arena site is not easily accessible on foot. The route would be unpleasant and unsafe for pedestrians in the dark and poor weather conditions with no significant mitigation measures proposed.
- With public transport options insufficient to meet demand, the risks posed to children and young persons walking to/from the site is considerable.
- The requirement placed on vulnerable persons and those with mobility impairments to walk long distances to access the city centre and other public transport options is considered unacceptable.
- The Etihad Campus Metrolink station will experience queues of 6,800 people with maximum individual delays of 110 minutes, due to the level of spectator demand travelling westbound (City Centre).
- Queues of up 1,200 people with full width of Joe Mercer Way in use rising to 2,500 people should 10% of the width not be used. There is potential for high levels of congestion at this location.
- The assessment of crowd movement undertaken as part of the planning application has not considered in full the impact of the additional pedestrian demand generated by the proposed arena on the Etihad Campus

Taxi / Uber

- Even with short turnaround times, provision is not adequate for demand and there is no recognition of the impact of increased traffic and congestion upon commuters and residents.
- The TA notes the existing Rowsley Street taxi rank, which can accommodate up to 10 taxis. The expected hourly taxi person trips in the match-day + arena scenario can be 461 during the arrival peak and 1,156 during the departure peak. Even with very short turnaround for pick-ups across an hour, this provision will be inadequate for the demand, making it inoperable as an efficient taxi rank.

Highways and Parking

- The major increase in vehicles travelling to / from the site at peak commute times (private vehicles, shuttle buses and taxis) increases journey times and delay for residents in a **severe** manner
- The transport assessment defines that **64% of trips are expected to be car based**; when taking car, drop off and taxi trips into consideration. The high car dependant share of mode split points to the unsustainable location of the proposed venue.
- The shortfall of parking across the campus is exacerbated by the removal of 500 spaces to construct the proposed Arena increasing demand for off-site parking.

The applicant fails to recognise network and capacity limitations of the existing public transport serving the site undermining the overall conclusion of site suitability for the proposed development. Consequently, more reliance will have to be placed on cars or walking as a means to reach the site. We have identified serious safety concerns for customers walking to and from the proposed site along busy roads, particularly at night when it is dark, or in bad weather. The modest mitigation measures proposed by the applicant do not adequately reduce these risks.

The application should not be approved based on the evidence presented by OVG's consultants. The residual pressure on the highway and transport network will be **severe** and will have an **unacceptable** impact on highway safety, in the locality during the combined match-day and arena event days. It therefore fails to meet the policy requirements set out in Paragraphs 108 and 109 of the NPPF documents.

Introduction

Purpose

Blacc, working in collaboration with Mott MacDonald Limited (MML), were commissioned by ASM Global to provide an independent assessment of the key traffic transport issues arising from an application for planning permission in respect of a 23,500 capacity Arena at Eastlands and the mitigation measures proposed by the Applicant, OVG (126431/FO/2020 ES).

The Applicant's Transport Assessment (TA) and Travel Plan (TP) have been produced by Buro Happold Engineering (BH) Ltd and are supported by an area-wide Transport and Movement Strategy produced by Arup.

The purpose of our report is:

To analyse OVG's claim in terms of transport resilience;

To highlight concerns and shortcomings of the analysis undertaken as part of the OVG planning application;

To highlight realistic impacts on associated traffic and transport networks and the viability of the proposed associated mitigations; and

To compare the accessibility of the proposed Arena at Eastlands to Manchester Arena.

Approach

This report is intended as a review of the key issues with the transport analysis and proposed mitigation put forward by BH. This forms part of a suite of technical documents providing evidence to support the principal objection to the planning application from ASM global.

For the purpose of this review we have considered:

1. The Transport Assessment and Travel Plan submitted on behalf of the Application,
2. The proposed Event Management Plan submitted on behalf of the Application,
3. The Transport and Movement Strategy submitted on behalf of the Application,
4. The National Planning Policy Framework, and
5. The Greater Manchester 2040 Transport Strategy.

The review highlights the key areas which are considered to demonstrate a fundamental weakness of the application and would have wider impacts on stakeholders, including the local community. In this context, paragraphs 108 and 109 of the National Planning Policy Framework are particularly pertinent and have been recreated overleaf for completeness.

These paragraphs form the key basis for determining the acceptability of any development proposals which have a bearing on existing transport networks.

Considering development proposals

108. *In assessing sites that may be allocated for development in plans, or specific applications for development, it should be ensured that:*

(a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;

(b) safe and suitable access to the site can be achieved for all users; and

(c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

109. *Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be **severe**.*

Commentary on methodology for the wider traffic impacts and further gaps in analysis have been indicated. Parking shortfalls are discussed against the predicted arrival and departures for typical arena and arena + stadium event days. The new arena is to be constructed on an existing car park, at a stroke reducing parking availability by 500 spaces.

This connects with the Controlled Parking Zone (CPZ) extension within the mitigation package, which has been compared with the mitigation package for the Etihad Stadium expansion from 2013 (Planning ref: 104315/FO/2013/N2). Logistics of large events are considerable and require out-of-hours operations. Accordingly, the implications for surrounding residents are highlighted.

High level assessments of public transport capacities have been included and cross referenced to the Travel Demand Management (TDM) proposals. The report reviews the measures against standard procedure for event management and compares similar events around Manchester in recent years.

This allows a complete picture of whether the proposed crowd dispersal measures are feasible and realistic during arrival and departures for combined events. Inclusion of GIS heat maps helps to understand the public transport catchments using TRACC software and overall population coverage within 15 minutes to 2 hours of both the existing Manchester Arena and the proposed arena at the Etihad Campus.

A commentary on general safety surrounding highway adjustments is included along with a critique of the accident review. A brief review of the walking routes to the city centre is included with key safety issues highlighted. This connects closely with some of the Transport Infrastructure proposals submitted as part of the application.

Report Structure

Inclusive of the narrative described above and following this introductory section, the report is structured around the following themes;

1. Introduction (this Chapter),
2. Trip Generation,
3. Sustainable Access,

4. Travel Demand Management and Mode Shift,
5. Site Accessibility,
6. Impact Strategic/Background,
7. Impact Local Community,
8. Car Parking,
9. Proposed Mitigation.
10. Summary, Conclusions and Recommendations.

Trip Generation

Preamble

This chapter focusses on the Trip Generation of the proposed OVG Arena and provides a precursor to the following Sustainability, Travel Demand Management and Impact Review chapters in this document.

Spectator Arrival Profiles

Spectator arrival profiles are used to define the number of trips for all modes that will occur at differing hours of the peak periods. This represents the start point of any analysis into person trip demand and should be evidenced accordingly.

The information presented by BH is described in the TA as follows;

“The arena arrival and departure profiles have been based on information provided by the applicant”

No evidence has been presented in the TA in support of the above statement and to justify the arrival / departure profiles. Given that the PM Peak Period represents an already congested transport network, the arrival profile splits shown in the table below should be further evidenced and justified to demonstrate their applicability as the start point for Trip Generation analysis.

Table 2.1: BH Arrival Profile Projections

Hour	Evening (Weekday / Weekend)	Concert Profile	Evening (Weekday / Weekend)	Concert	Trips
1700-1800		30%		7,050	
1800-1900		30%		7,050	
1900-2000		40%		9,400	
TOTAL		100%		23,500	

Even minor variations in the projected arrival profiles would have a significant difference to the number of person trips generated within the assessment. The TA also notes the following;

*“It is **unlikely** that all spectators would arrive at the venue when the support act starts, therefore the peak spectator arrival period is **likely** to be between 19:00 and 20:00”*

The support acts are assumed to start at 19:30, and the TA is therefore suggesting up to 40% of people will not arrive in time for this act. Whether or not this is a reasonable and evidenced assumption is not presented in the TA however, use of the words unlikely and likely in the above statement seem to be the only consideration of this profiling aspect put forward in the TA.

Spectator Mode Split

The mode share analysis for spectators presented in the TA, begins by stating that data for equivalent arenas (Manchester, Nottingham, Leeds and Bristol) within the UK has been

undertaken to validate the mode splits used for the assessment of the arena. These datasets are reproduced in the figure below.

Figure 2.1: Extract: Comparison of Mode Splits for other Arenas

Mode	MEN Manchester Arena	Nottingham Arena	Leeds Arena	Bristol Arena (Transport Assessment)
Car Occupant	80%	74%	80%	80%
Park and Ride				
Bus	7%	4%	4%	5%
Coach				2%
Rail / tram	13%	11%	5%	4%
Taxi		7%	6%	2%
Walk / cycle		4%	3%	7%
Total	100%	100%	100%	100%

Source: Buro Happold

It should be noted at the outset that this data has not been used to validate the final mode share assumptions derived in support of the proposed OVG Arena, as claimed in the TA. These equivalent arena datasets are dismissed in the TA, on the basis of the following points;

- The mitigation measures proposed as part of the OVG Arena application, and
- Travel surveys of events at Arsenal's 'Emirates' stadium and Tottenham Hotspur's 'White Hart Lane' stadium in London.

The TA then goes on to state that on the basis of these two points, a conservative estimated car mode share for future arena visitors could be some 12-15% lower on opening than that which is currently recorded at the Etihad Stadium.

The following key points are noted from the above information.

1. The mitigation measures proposed in the TA should be derived as part of the process of ameliorating any defined impacts, and not as a pre-defined justification for an assumed mode share. This is effectively assuming the mitigation measures work before they have been demonstrated to do so.
2. The reference to evidence at the Emirates and White Hart Lane stadiums is considered potentially inappropriate for the OVG Arena. If this were a TRICS analysis, then the Greater London area would be discounted as a matter of best practice and it is felt that the travel characteristics of these areas are not comparable with the proposed OVG Arena location.
3. The statement that the observed Etihad Stadium mode share could be some 12-15% lower for the OVG Arena is considered unfounded, as well as being an inappropriate comparison given that matchday events could well have different travel characteristics than an arena event.
4. The suggested mode split associated to Manchester Arena is incorrect, car based demand accounts for up to 50% of event day transport – not 80% as suggested.

The TA then states that in order to derive a worst-case scenario, a mode share has been derived based on values that are recorded at the Etihad Campus currently. The TA therefore discounts the data from other comparable Arenas and uses observed mode share information from a matchday at the Etihad Stadium. This information is presented at Appendix H of the TA.

It could be expected that travel characteristics for a matchday event and an arena event will be significantly different, given that attendees at football matches are more regular travellers to the location and there are multiple supporters clubs, travel groups and car sharing initiatives running between fellow supporters.

The TA then goes on to note that this matchday data presented at Appendix H of the TA has been validated with 'preferred transport option' mode share data derived from 2019 concerts at Etihad Stadium. It is unclear where, or if, this preferred transport option mode share data has been presented in the TA.

As noted previously, the TA makes no effort to validate the final mode share data against that derived for other arenas. Public Transport accessibility analysis is presented later in this document, and it is noted from the data presented that the Manchester Arena is better served by Public Transport than the OVG Arena location, with more people within each of the travel time bands.

Each of the arenas presented in Figure 2.1 are in accessible locations via non-car modes, yet each shows a notably different mode share, particularly in relation to car-borne trips.

Spectator Car Occupancy

The TA assumes a car occupancy value of 2.4 derived from the TA produced for the Etihad Stadium expansion submitted in 2013. Once again, no justification is presented that a matchday car occupancy and an arena car occupancy would be similar, and the mode share evidence presented from the other arenas would suggest that very notable differences would occur.

A 2.4 car occupancy value is an output of multiple supporters' clubs, travel groups and car sharing initiatives running between fellow supporters. There is no evidence presented that this would be the same for an arena event.

Event Staff Mode Split

It is proposed that 769 'Arena staff' will be resourced to work on a standard Arena event. Of the 769, up to 73% (559) members of staff will finish their duties after the public transport network has already stood down. This means that for nearly three quarters of the workforce, the only viable option is to travel by car.

This would mean that the Mode Share analysis proposed for staff within the TA, which is derived from 2017 Etihad Stadium staff travel surveys, may be unrepresentative of the site operation.

Sensitivity Testing

Given the notable variance possible in arrival profiles and mode splits, particularly in relation to the evidence presented, as well as the fact that the mode splits defined in the TA have been pre-determined on the assumption that the mitigation measures will be successful, it would be expected that a sensitivity test, or series of sensitivity scenarios would be derived to demonstrate what and how the different transport networks would operate. Given capacity constraints noted in both the Public Transport and Highways networks (demonstrated later in this report), this sensitivity testing would be required for adequate determination of the application.

Sustainability Public Transport and Active Travel Modes

Public Transport Resilience

The OVG Transport Assessment (“TA”) asserts public transport is resilient around the Eastlands site. This is not, however, borne out by careful examination of the facts. On analysis, the TA does not cover all the impacts on the existing public transport network from the new arena development- below is a discussion of the points by mode.

The public transport strengthening plan is remarkably limited – with the exception of controlled parking measures, most of the other mitigation measures in the Event Management Plan are based firmly around ‘promotion’ and pushing the benefits/justification of the variable messaging signage (VMS) and digital display screens at the venue. While these measures would be important to the success of a busy event, it is part of the toolkit rather than the main solution.

The planning stage of a major new venue presents the best opportunity to assess the impacts of the venue against the existing infrastructure and any future enhancements. Improvements must be hard-wired in at the planning approval stage. For example, the expansion of the Etihad Stadium and the creation of the MCFC Football Academy relied on the construction of the Metrolink line to Ashton and the enhanced public transport capacity this introduced. However, the capacity has a limit and the combination of events introduced by building a major indoor arena will mean inevitable clashes in the calendar.

This places severe pressure on the highway and public transport network, compromising safety and functionality across multiple days of the year. There is no similar step-change approach to mass transportation provision proposed as part of this planning application.

Bus services / Shuttle bus

The main bus routes in the vicinity of the Site are the Alan Turing Way, Ashton New Road and Bradford Road corridors.

- On an Arena Event day, the TA stated in **Paragraph 7.1.15** that the arena is expected to generate 1,933 total daily two-way bus trips.
- Out of the total daily bus trips, 376 and 944 trips relate to the arena peak arrivals and departures respectively.
- On an Arena Event with Football Match day, **Paragraph 7.1.59** mentioned the arena and Etihad Stadium will generate 5,917 daily two-way bus trips of which 2,061 and 1,986 trips are related to peak arrivals and departures respectively.

Despite the expected significant increase in demand, the TA does not mention any potential impacts on the existing bus network, and whilst proposing shuttle bus measures the effectiveness and reality of that proposal has not been explored in the TA. It compares the arena on a non-match day scenario with the current Etihad Stadium match day scenario and concludes that bus impact from demand generated by the Arena on a non-match day would not be greater than the current impact by the existing stadium.

This is misleading when looking at the impacts brought by the proposed development, as the baseline scenario to be compared should be a non-match day without the Arena built. For both Arena Event only day and Arena Event with Football Match day examples, there is no assessment

of the bus network's ability to handle the required uplift in demand. This is a significant and inexplicable omission.

Additional shuttle bus service on major events is mentioned in the report, but the details of any associated operational plan are not provided. Nor is there any indication as to **how** such mitigation will be provided. It is clear that the significant scale of any bus based response hasn't been clearly acknowledged or understood within the application. The current shuttle bus service is provided on a commercial basis by Stagecoach, with some recent question marks around the viability of the service, due in part to reducing patronage and challenges around crowd management and revenue collection.

Based upon current infrastructure, the maximum number of buses able to service the site is 16. But in fact, between 8 & 12 buses (960 passengers) is the current allocated resource for a matchday. There are further questions that remain unanswered including 'How many shuttle buses will be provided and what will be the frequencies and destinations?', 'Will there be shuttle bus services for every arena event?' 'Will a Park and Ride service be activated, and if so, where and from/to which locations? Clearly a minor adjustment to the current bus operation would not provide a feasible public transport option.

Metrolink

In **Paragraph 7.1.25**, the TA again compared an Arena Event Only day with a current Etihad Stadium match day rather than a non-match day without the Arena: '*Given that the peak number of trips arriving at the proposed arena is lower than the existing demands generated on match-days at the Etihad Stadium, this is expected to be adequately accommodated on the Metrolink network.*' **Table 7.1** relates to Non-match day arena Metrolink demand compared with existing matchday. It failed to properly analyse the impacts on the Metrolink network and user experience of frequent commuters, especially when the anticipated number of events is 120-180 per year meaning the increase in demand is expected to happen 2-3 times a week.

When it comes to the worst-case scenario (weekday Arena Event with Football Match), there is still no assessment of the Metrolink line's ability to handle the required uplift in demand. It is anticipated within the OVG report that there could be 10-15 arena events per year that will coincide with matches at the Etihad Stadium.

As mentioned by **Figure 4.9** in the TA, the current half-hourly peak demand at the Etihad Campus Metrolink station for a weekday matchday reaches 1,806 person trips, meaning the existing PM hourly peak demand can exceed 3,600 trips. This is already well beyond the capacity of the Metrolink service.

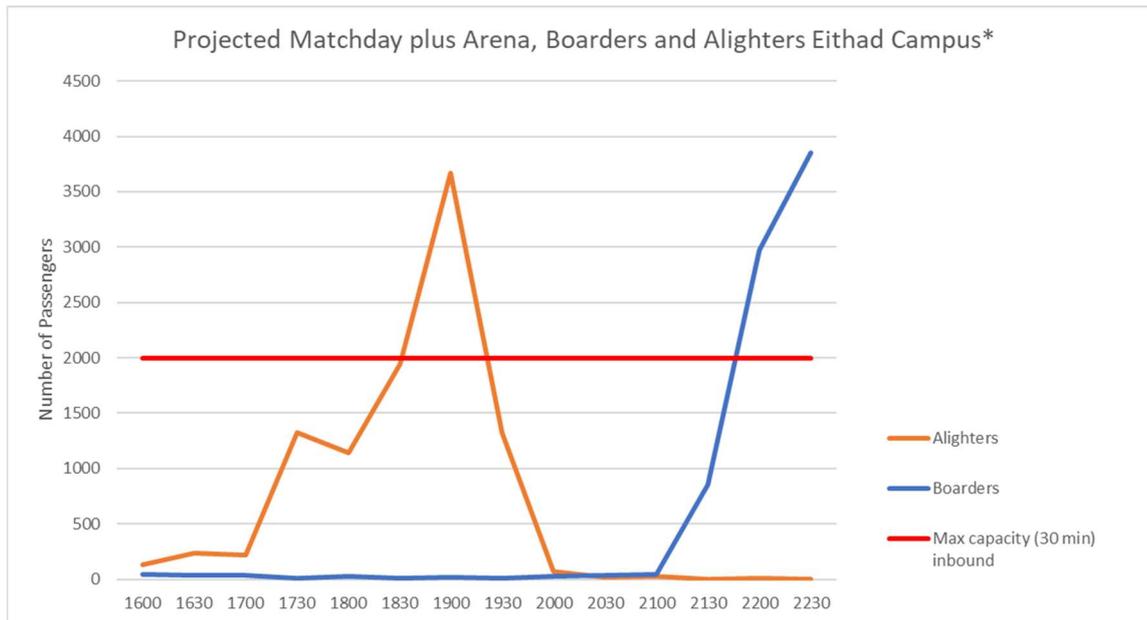
The proposed arena and Etihad Stadium will generate 25,726 total daily two-way Metrolink trips for the worst-case scenario of which 8,860 and 8,607 trips relate to the arena and football match peak arrivals (19:00 – 20:00) and departures (22:00 – 23:00) respectively. The TA assumes the increase in demand can be accommodated on the tram network by the enhanced service currently taken place to serve football matches.

However, the Applicant has entirely failed to acknowledge or consider power unit limitations which will come into play when considering the maximum number of trams that can be operated on the network. Due to this, the frequency of Metrolink cannot be higher than ten double trams per hour representing the maximum feasible number of passengers to accommodate hourly is around 4000 inbound.

In this context, the number of Metrolink trips during peak arrivals and departures at the Arena and Stadium will be more than double of the tram capacity, as shown in Figure 3.1 for comparison

(note; time intervals are 30 mins). Put simply, Metrolink cannot meet the anticipated demand if an Arena is developed at the site.

Figure 3.1: Projected Matchday plus Arena Demand



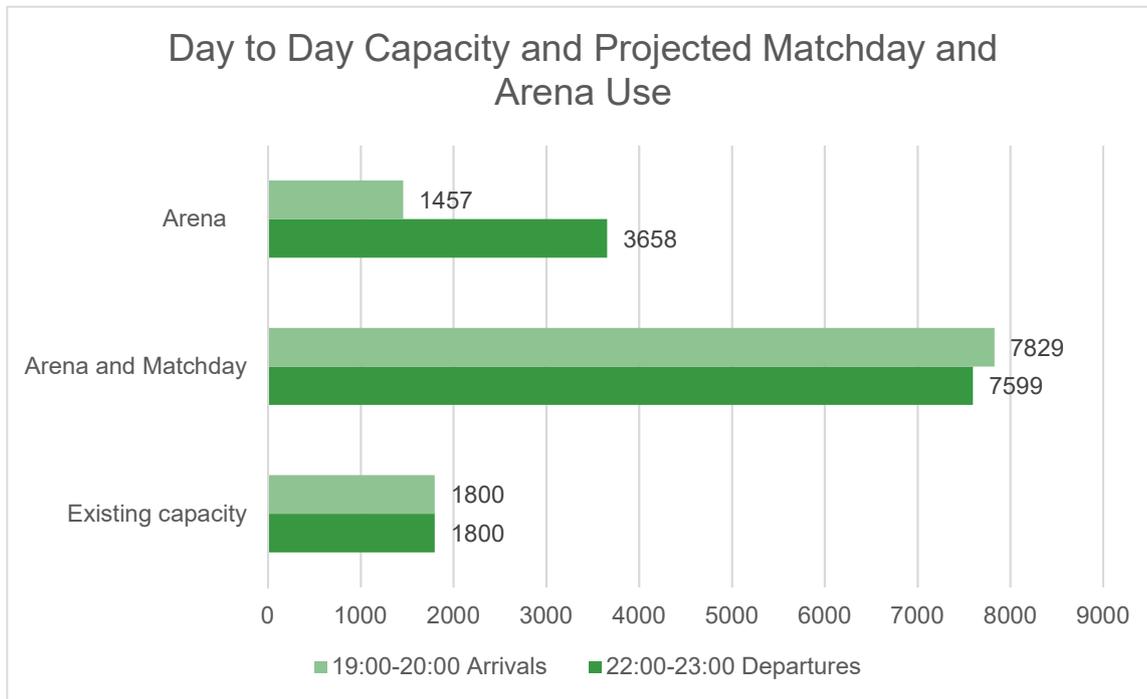
Source: Data; OVG Transport Assessment

The TA places heavy reliance on TfGM support on event days and assumes all the increased demand can be accommodated. There will be risk particularly in terms of conflicting interests such as commuter peak and multiple events held across Greater Manchester. As a result of the increased midweek Arena events, capacity will be constrained to support ingress on Ashton line with background usage from daily commuter peak.

Rail

The reliance on Ashbury's station for additional rail-based trips is fundamentally flawed. Unless substantial investment is made at the station, platforms widths are narrow and dangerous, it is not compliant with the Disability Discrimination Act and distant at 1.7km from the site. The station is unstaffed and has no permanent buildings or ticket provision, so all tickets must be bought on the train or prior to travel. No step-free access is available, as the station is above street level and the only access offered is via staircase and footbridge.

Capacity of existing services has not been assessed in any way. The heavy rail projected figures are contained in paragraphs 7.1.36 and 7.1.75 of the OVG report. If reliant on Ashbury's, they are significantly larger than the existing capacity at the station which typically will operate between 6 services in the arrival peak (two way, 1900-2000) or 2 services in the departure peak (2200-2300). Existing capacity is based on our estimation of 1800 passengers per hour.

Figure 3.2: Ashbury's Capacity vs Matchday and Arena Events**Photo 3.1: Platforms at Ashbury's Station**

Source: MML

Services are limited in terms of capacity or frequency. The station provides services to destinations such as Manchester Piccadilly, Hadfield, New Mills Central and Rose Hill Marple. However, the frequency of trains travelling to Ashbury's from Manchester Piccadilly, where most of the Arena and Stadium visitors will be coming from, is half-hourly. Other services frequently pass through the station without stopping.

Figure 3.3: Extract; Table 4.3 OVG Transport Assessment**Table 4.3 Ashburys Train Services and Frequencies**

Destination	Line	Peak Frequency (trains per hour per direction)							
		Weekday				Weekend			
		AM Network Peak (08:00 – 09:00)	PM Network Peak (17:00 – 18:00)	Arena Arrivals Peak (19:00 – 20:00)	Arena Departure Peak (22:00 – 23:00)	Arena Arrivals Peak (12:00-13:00)		Arena Departure Peak (16:00-17:00)	
						Saturday	Sunday	Saturday	Sunday
Hadfield	Northern	2	3	2	2	2	2	2	2
Rose Hill Marple	Northern	2	2	2	-	2	-	2	-
New Mills Central	Northern	1	2	1	1	1	2	2	2
Manchester Piccadilly	Northern	7	4	3	3	4	2	5	3

Source: Buro Happold

Since Ashbury's station is not a frequent stop for rail service, visitors will be required to change at Piccadilly station. This influences the choice for rail, through the effect of time spent waiting, transferring between services and the potential inconvenience and risks involved. This is further exacerbated by additional interchange and co-ordination between modes related to information provision and through ticketing considerations.

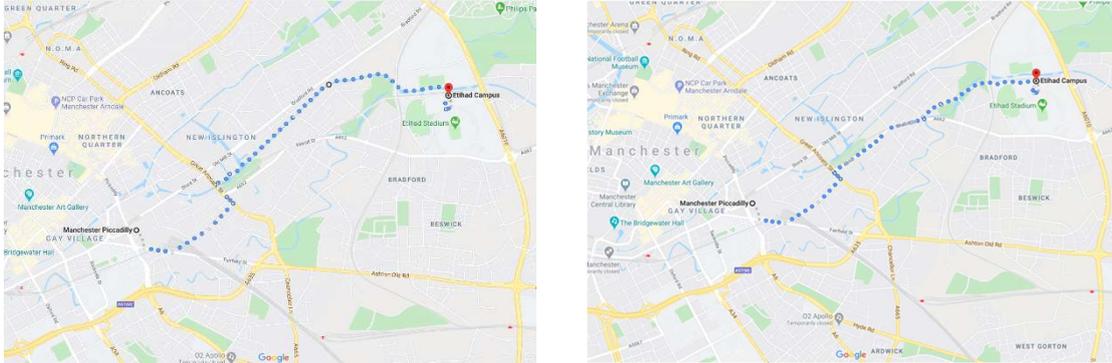
Passengers travelling from Bolton for example, are required to interchange at the Piccadilly station to continue their trip to the proposed arena. Although the duration of the trip from Piccadilly to Ashbury's is only around 5 minutes, the typical waiting time, the combination of a typical waiting time of 15 minutes and an interchange penalty could discourage people to travel by train and encourage commuters to take a taxi for the second leg of their journey.

Walking from City Centre

The proposed arena is not highly accessible on foot from the city centre. Based on recent research into walking journeys (CIHT)¹ only 26% of trips between 1 - 2 miles are on foot. The proposed site is 1.9 miles (3.0 kilometres), taking more than 30 minutes to walk from Piccadilly station which is longer than the general acceptable distance to commute. It is even further from the other key rail station, at 2.3 miles (3.6 kilometres) and a 45 minute walk from Victoria station, The CIHT report also highlights the importance of the quality of the pedestrian experience in tandem with distance to encourage walking trips.

Both the Ashton Canal Towpath and Citylink and Ashton New Road routes as mentioned above are lengthy and unattractive once outside the city centre. Walking from Piccadilly in the TA assumes good mobility and light weather conditions, but it can be unpleasant and unsafe for pedestrians in the dark and during inclement weather conditions.

¹ https://www.ciht.org.uk/media/4465/planning_for_walking_-_long_-_april_2015.pdf

Figure 3.4: Typical Walk Routes from Manchester Piccadilly to Eastlands Site

Source: Google Maps

The TA does not mention how sufficient capacity will be provided for those with mobility impairments particularly on Football and Arena nights. It is expected that the number of visitors including people with disability to the area will be increased, but the report failed to suggest measures to provide enough capacity for them.

Pedestrian Routes and Environs

Limited interventions on pedestrian access are mentioned in the TA: no significant enhancement to footway widths or hard infrastructure are proposed; the proposals are reliant on signs and lines- which was similar to previous planning applications at the Etihad, notably the stadium expansion.

The walking route proposals do not appear to substantially improve the position above the Stadium expansion approval from 2013 (104315/FO/2013/N2). There were 7 measures to improve pedestrian accessibility put forward as Scheme 4 of the mitigation package. Three of which required physical interventions;

- Measure 2 City Link Walk Route Holt Town Wayfinding; new signage adjacent to the Holt Town Stop
- Measure 3 A Pollard Street pedestrian route, linking across land adjacent to the Pollard Street metrolink stop. (Yet to be implemented)
- Measure 5 A Great Ancoats Street Pedestrian Crossing; Crossing facility on Inner Relief Route adjacent to Pollard Street.

The measures proposed in the OVG TA concentrate on signage, soft landscaping, maintenance and minimal infrastructure interventions on the Ashton New Road route to reduce a pinch-point at the railway bridge. The measures are not explicitly indicated in any way and do not go as far as the proposals within the Etihad expansion mitigation package, particularly those around the Pollard Street tram stop, which remains under-developed.

The stadium expansion pedestrian mitigation proposals put forward in 2013, are yet to be completed. Accordingly, the proposed mitigations will not address the risks associated with increased footfall and fall far short of what is required.

Citylink and Ashton New Road

This is the official walking route stated on the Manchester City Football Club website that connects the city centre and the Stadium. The route takes around 32 minutes on foot in good weather

conditions. This route is a lengthy and unattractive walk once outside the city centre. It involves a significant number of people crossing at junctions with heavy traffic such as the Great Ancoats St/Pollard St junction and walking along narrow streets with footways in poor condition.

Photo 3.2: Junction of Pollard Street and Great Ancoats Street / Holt Town Tram Stop



Source: Google Streetview

Before reaching Citylink, visitors need to pass through the Holt Town tram stop surrounded by narrow streets with very limited footway width. Under standard operational conditions, Holt Town is not a busy stop, but its usage increases on a football match day or arena event day, when the route becomes crowded and filled with visitors heading towards the Arena and the Stadium.

The increased number of passenger ingress and egress at the tram stop and taxi/uber pick up around the station already causes disruption to the surrounding pedestrian flow and encourages drivers to cut through residential side streets, which makes the route unsafe for pedestrian and vehicles alike.

Photo 3.3: Pedestrian Route, Holt Town Tram Stop



Source: Google Streetview

Taxi/Uber

In **Paragraph 4.6.14** of the OVG Transport Assessment it is stated there is a taxi rank located at the southern end of Rowsley Street, which is 60m in length and provides space for up to 10 taxis.

Observations suggest that private pick-up/drop-offs additionally take place on Ashton New Road and on the corner of Briscoe Lane. Figure 3.5 indicates the expected hourly taxi trip in the match-day + arena scenario can be 461 during the arrival peak and 1,156 during the departure peak. Even with very short turnaround for pick-ups across an hour, the available rank provision will be inadequate for the demand.

Figure 3.5: Extract; Table 6.8 OVG Transport Assessment

Table 6.8 Total Person Trips for the Arena – Weekday Evening Concert (Peak Arrivals/Departures)

Mode	Arrival Peak (19:00-20:00)			Departure Peak (22:00-23:00)		
	In	Out	Total	In	Out	Total
Car (driver and passengers)	5,396	0	5,396	0	13,518	13,518
Drop off	188	0	188	0	488	488
Motorbike	9	0	9	0	25	25
Bicycle	9	0	9	0	27	27
Walk	132	0	132	0	339	339
Taxi	461	0	461	0	1,156	1,156
Train and Walk	479	0	479	0	1,205	1,205
Train and other mode	658	0	658	0	1,653	1,653
Bus	301	0	301	0	756	756
Metrolink	1,288	0	1,288	0	3,250	3,250
Coach	479	0	479	0	1,199	1,199
Total	9,400	0	9,400	0	23,615	23,615

Source: Buro Happold

The table above identifies that **64% of trips are expected to be car based**, when taking car, drop off and taxi trips into consideration. The high car dependant share of mode split is not sustainable and further points to the inaccessible location of the proposed site.

Hackney and taxi licensing are understood to be an ongoing issue for the campus. Attempts have been made to create fixed ranks for black cabs and private hire/UBER, but to date none have proved successful. Taxi's would be expected to gather at key junctions further exacerbating conflicts with pedestrians and background traffic.

Travel Demand Management and Mode Shift

Travel Demand Management

TDM is the process of identifying and managing demand where there are excessive peaks – or where network capacity is constrained. It engages directly with network users and seeks to shift demand to make more efficient use of the overall network and mitigates against excess demand or reduced supply.

TDM is a complementary measure which must work in conjunction with infrastructure, innovation and capacity improvements to balance transport demand and capacity.

The principals of TDM are broken down into the 4 R's as shown below:-

- Reduce demand: To reduce the need to travel at all, the most sustainable solution, achieved through remote and flexible working policies;- not relevant in this case;
- Re-route: To reroute journeys away from network pressure points, to spread traffic mode widely across the network and alleviate pinch points;
- Re-time: To retime journeys to avoid the peak times on the network, for example, through staggered hours to reduce traffic queues and overcrowding, and address air quality; and
- Re-mode: To re-mode existing journeys towards sustainable alternatives, for example, using buses, car sharing, or park and ride.

The planning application provides a set of short and longer-term projections in terms of modal split. It proposes that spectator travel behaviour will be influenced to ultimately convert car trips into more sustainable public transport options. (EMP document and Planning statement at 7.2)

The application proposes a limited number of interventions which focus on making it less attractive to travel to the venue by car. These include an extended controlled parking zone and the requirement to pre book parking in advance.

The primary focus in terms of the proposed mitigation within the application is Travel Demand Management, to attempt to influence travel behaviours. To support this approach, the application proposes to fund additional variable messages signs (VMS) in the vicinity and on route to the venue.

VMS is not a suitable platform to provide advance messages to spectators relating to transport, for the simple reason that they are already en-route. The best use for VMS is to target background users of the network (i.e residents) who will be required to change their travel pattern to accommodate event day traffic.

Based on our extensive experience locally in the development of successful TDM and travel behaviour campaigns, it is considered that the most successful examples lead to between 15-20% of spectators changing travel arrangements. Some examples are included overleaf:-



The national athletes' parade was held in Manchester to celebrate the homecoming of the Team GB athletes, following the Rio Olympics – we measured 17 % less traffic on the network compared with the average peak-time flows. This followed a campaign across all channels which ran for a month.



The Police are often required to facilitate away fan walks to both the Etihad and Old Trafford on European football nights. Leading to massive disruption on the associated highway network. Comprehensive TDM campaigns are implemented led by TFGM, the maximum impact was a 15% reduction in traffic.

Using the maximum of 20%, this would mean the influence of any TDM effort would be likely to result in the successful change in travel characteristics of no more than:-

- 4,700 spectators for arena only dates, and
- 16,900 spectators for combined stadia and arena event dates.

The OVG TA highlights that 3,000 parking spaces will be available on non-match days for specific arena events. This allocation reduces to 500 spaces on combined arena and stadia event days. This is an 83% reduction in car parking capacity. There is no proposed solution as to how this demand is reconciled.

Below is a review of the strength of each of the potential available TDM options:-

Re-mode

- The multi modal public transport options which exist in the vicinity of the Etihad campus and proposed arena are all limited. The total maximum hourly capacity of all public transport options combined is less than 9,500 when taking into consideration all possible service enhancements. This would mean that the best-case scenario is wait times in excess of 2 hours for public transport post event finish. The worst-case contrasts from this sharply, with over 20,000 spectators without any public transport option at all.

Table 4.1: Mode Split Projections

Mode	Max capacity per hour	Arena only %	Arena + Stadium %
Metrolink	6,400	27.23	8
Bus	1220	5.2	1.5
Local Train	1800	7.66	2.25
Car	7,500 (3000)	31.91	9.4
Taxi	940	4	1.2

- It is anticipated that peak ingress will be between 17:30 and 18:30, during this period very little service capacity exists on bus services 216, 219, 230 and 231, tram (Ashton Line) or local train services (Ashbury's) connecting the venue and the city centre.

- Peak egress is likely to occur from 22:30 to 23:30 for the majority of arena event dates. This is the last hour of timetabled public transport services from Sunday to Thursday, with capacity reducing sharply beyond this time. This leaves very little resilience in the post event public transport offer.
- Bus service options which account for over 10% of the available local public transport capacity, are impacted by the both event and peak commuter traffic meaning that, journey times between Manchester City Centre and the Etihad Campus typically double during expected periods of peak event ingress/egress. This is likely to mean that trip times more closely align to walking times than optimum off-peak bus journey times.
- Public transport capacity is further constrained when taking into consideration background transport demand and patronage associated with coincident event activity, such as;
 - Etihad Stadium football match,
 - Other neighbouring events – on Campus,
 - Engineering works and track possessions on the train and tram lines,
 - Other events across Greater Manchester, such as Man United at Old Trafford, Manchester Arena and events at Heaton Park such as the annual Parklife Festival will compromise capacity at the Etihad Campus.
- On those occasions where arena events directly conflict with an Etihad Stadium event, its estimated that there will be no available public transport or car parking capacity within the system. This will mean that the only feasible alternative is for visitors to travel into Manchester City centre and make the connection to the venue on foot. This will place significant strain on available walking routes via Ashton New Road and the Ashton Canal towpath, with projections likely to mean in excess of 20,000 people need to use this option. This outcome would ultimately mean that road-based transport is undermined with spectators encroaching into the carriageway and would impact on the throughput of the Metrolink service with tram line crossing at Holt Town compromised for extended periods.
- The EMP suggests that Park and Ride options will provide a realistic option for alternative methods of travel. The total car parking capacity of Park and Ride options which are linked directly to the proposed venue, (without the requirement for interchange) is 417 car parking spaces, both of which are located on the Ashton Metrolink line at Ashton Moss (211 spaces) and Ashton West (206 spaces). On Weekdays, the associated car parks remain full until approx. 18:00, utilised by commuters travelling towards Manchester City Centre. On matchdays at the Etihad, similarly this facility is fully utilised with football spectators
- Coach Travel - On non-matchdays its proposed that 3,000 car parking spaces will be made available from within the campus car parking capacity. On Matchdays, this reduces to 500. The proposed mode splits suggest that in the region of 1,457 spectators are expected to travel by coach, this equates to around 29 coaches on average. Facilitating on site car parking for this demand is not accounted for within the car parking figures and is likely to mean a further loss of around 200-250 car parking spaces.

Re-time

- Main doors for general admission are proposed to open at 18:30 for a typical event, (as cited within EMP doc). Arrival profile is therefore likely to peak during period when public transport capacity and road-based journey times are at their most constrained.
- Any retime message aimed at event goers would have to attempt to attract visitors to the venue to travel to the event earlier and stay at the venue longer post event, to have any real positive impact. This would require a real incentive in the form of on-site activation and entertainment. Whilst an attempt to encourage visitors to retime is mentioned, there is no

tangible proposal within the application that addresses how this might happen. It is expected that any potential solution of this kind, would require an event footprint to support in excess of 10,000 people.

- The variable visitor demographics mean that the success of any messages will likely to fluctuate significantly event by event. A midweek event will mean that visitors are unlikely to have the same flexibility in terms of times of travel, compared with a weekend event. Similarly, the impact and success of any associated messages is likely to vary between events based on predominant visitor age category etc.

Re-route

- Reroute options are predominantly directed to those travelling to the venue by car. Road users will typically access the venue via Ashton New Road from one of :-
 - The Inner Relief Route – Journey times on the IRR during peak periods regularly triple, the major pinch point is the section of the route between Mancunian Way Ardwick Green/A6 and the Great Ancoats Street/Old Mill Street junction.
 - M60 – Of those that travel by car, in excess of 60% are expected to travel via the M60. The primary junction for event traffic will be junction 23. Attempts have been made for matchdays/concerts at the Etihad Stadium to split M60 traffic across junctions 22,23 and 24. These attempts have had limited success. Junction 23 on inbound will typically reach saturation up to an hour prior to kick off/event start with pressure on off slip arms impacting on through traffic. Post event congestion on this junction will typically remain for up to an hour post-match.
 - Associated radial routes connected to the mentioned junctions are hampered with considerably increased journey times on event days at the Etihad, with a combination of local traffic and longer journeys via the strategic network converging on a confined area of the local road network.

Figure 4.1: Typical Re-Routing Options, East Manchester

Source: Google/Blacc

Travel Demand Management Summary

1. The mode splits projected in the Event Management Plan are considered to be unattainable. This is due to the physical limitations of the network itself in terms of capacity and direct connectivity and other competing demands on capacity further constraining the public transport offer.
2. Heavy onus is placed on influencing travel behaviours to reduce the number of those that intend to travel by car, but without any reasonable alternative public transport options this can never be an effective mitigation.
3. Reroute options are limited with alternative corridors similarly susceptible to congestion at expected peak times.
4. Visitor demographics will mean that transport behaviours and resultant impacts are erratic with no two event dates the same. Recent experience of Taylor Swift compared with Take That concerts at the Etihad stadium have created significantly different challenges, but both creating major disruption to the wider traffic and transport networks.

Site Accessibility

Public Transport Accessibility

Background Data

TRACC software is used in public transport analysis in the UK and overseas. It uses imported datasets from DfT (in the UK) to run multi-modal journey time calculations, which are then used to produce accurate and understandable mapping outputs. The graphical analysis included in the following pages has been produced to understand the key differences in accessibility between the existing Manchester Arena site and the proposed Eastlands Arena on the Etihad campus.

The software uses multiple data sources for consolidated timetables from ATOC and Traveline and is updated on a quarterly basis. The data used in the analysis is from Quarter 1 2020. The analysis covers the worst-case weekday PM peak recorded within the OVG Transport Assessment; 5pm-7pm. An 800m walk distance is included to allow an 800m connection at the start and end of journeys and the analysis covers all public transport modes, including, bus, rail, tram and coach.

Population data is based on 2018 mid-year estimate of population joined to population weighted Large Super Output Areas (LSOA) centroids. Population was included in each isochrone band if the LSOA centroid point was located within the isochrone band. The isochrones themselves are based on a 200m origin grid.

Comparative Analysis

In order to demonstrate the accessibility of the site, a comparative analysis of an existing arena has been undertaken as a quantitative technique.

The Manchester Arena is located adjacent to Manchester's second largest transport interchange; Victoria. The station is a hub for tram and heavy rail lines into the city. It is also a short walk from Shudehill bus station (350m).

The proposed Eastlands site is adjacent to the Etihad Stadium in East Manchester. It is served by the Eccles- Ashton Metrolink line and bus services on Alan Turning Way. Heavy rail options are limited to Ashburys station which is approximately 1.7km to the south.

The TRACC analysis, presented at Figure 5.2, for the existing Arena indicates a large majority (1.85 million) of the Greater Manchester population is within a 45-minute public transport journey. The equivalent numbers at the proposed Eastlands site, shown in Figure 5.3, are just over half this figure at 961,000. The coverage of key satellite towns, such as Bolton, Bury and Wigan within the 45-minute isochrone significantly enhances the existing Arena figures above those of the Eastlands site.

As the isochrones are expanded to 60 mins and beyond, this disparity increases. At 60 mins travel time, the Manchester Arena is within reach of 3.23m people, whereas the Eastlands site is 1.86m. This is explained by the Victoria site being accessible from surrounding large towns and cities within this timescale; this includes Central Liverpool, Central Leeds, Preston and Huddersfield. The interchange penalty at Piccadilly for those visitors both within and external to Greater Manchester is clear. This results in the Eastlands site being a less attractive location for public transport access.

The 90-minute isochrone again increases the difference in population coverage, the existing Arena is now accessible to circa 6.5m people, whilst the Eastlands site is 4.16m. The difference is partially accounted for by significantly larger areas of Leeds and the Calder Valley to the east and both the north and south of Merseyside to the west being within the isochrone limits for Victoria. The Eastlands site continues to present a less extensive catchment.

The accessibility of the Eastlands site is clearly poorer than the existing Arena for public transport. Although the proposed site caters for a significant matchday crowd, it is not well suited for arena events. Typically for one-off concerts and shows many attendees may be visiting for the first time. A city centre site, with the other attractions and accommodation it offers, is a more attractive and sustainable location for an Arena.

Figure 5.1: Manchester Arena Public Transport Accessibility

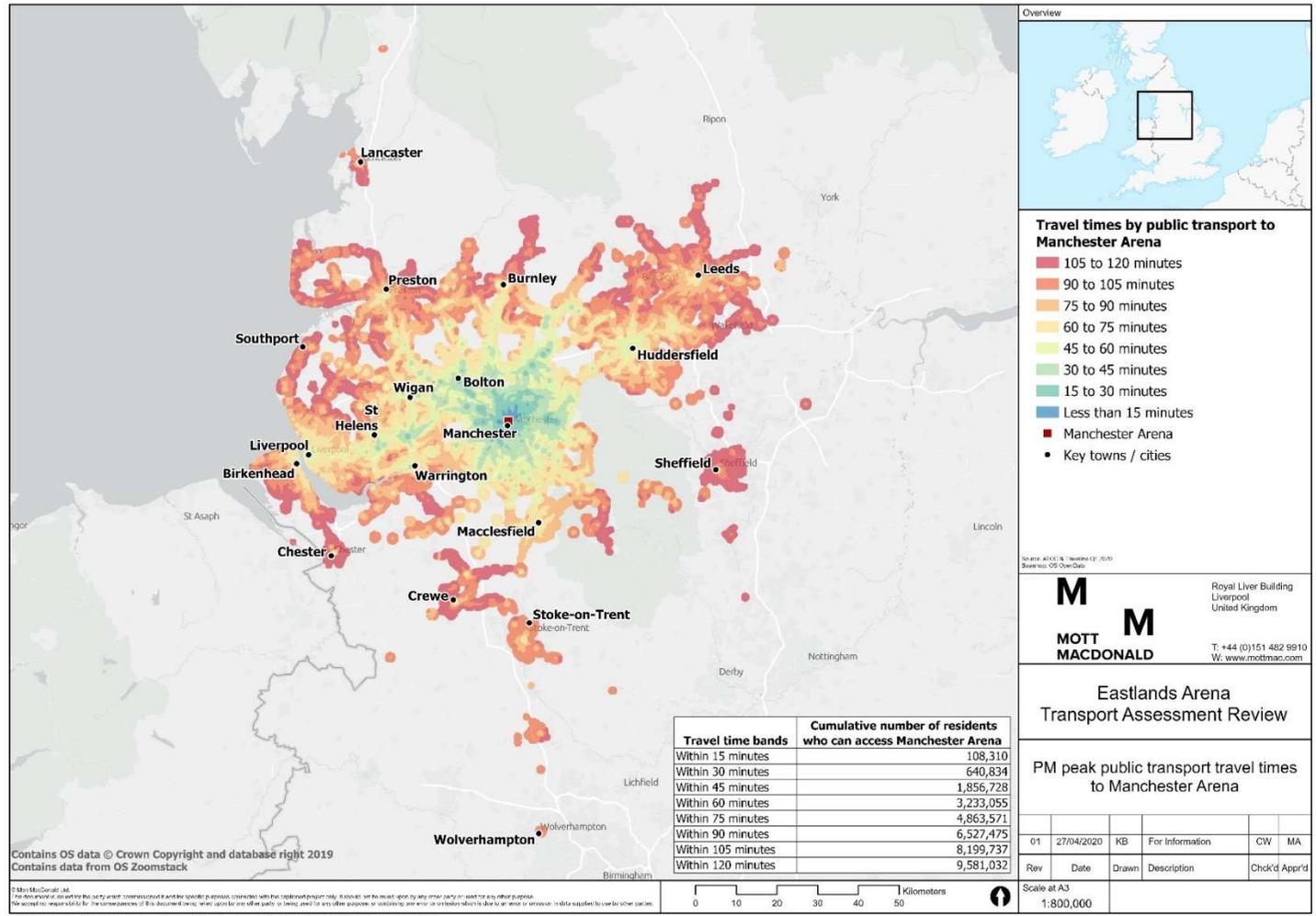
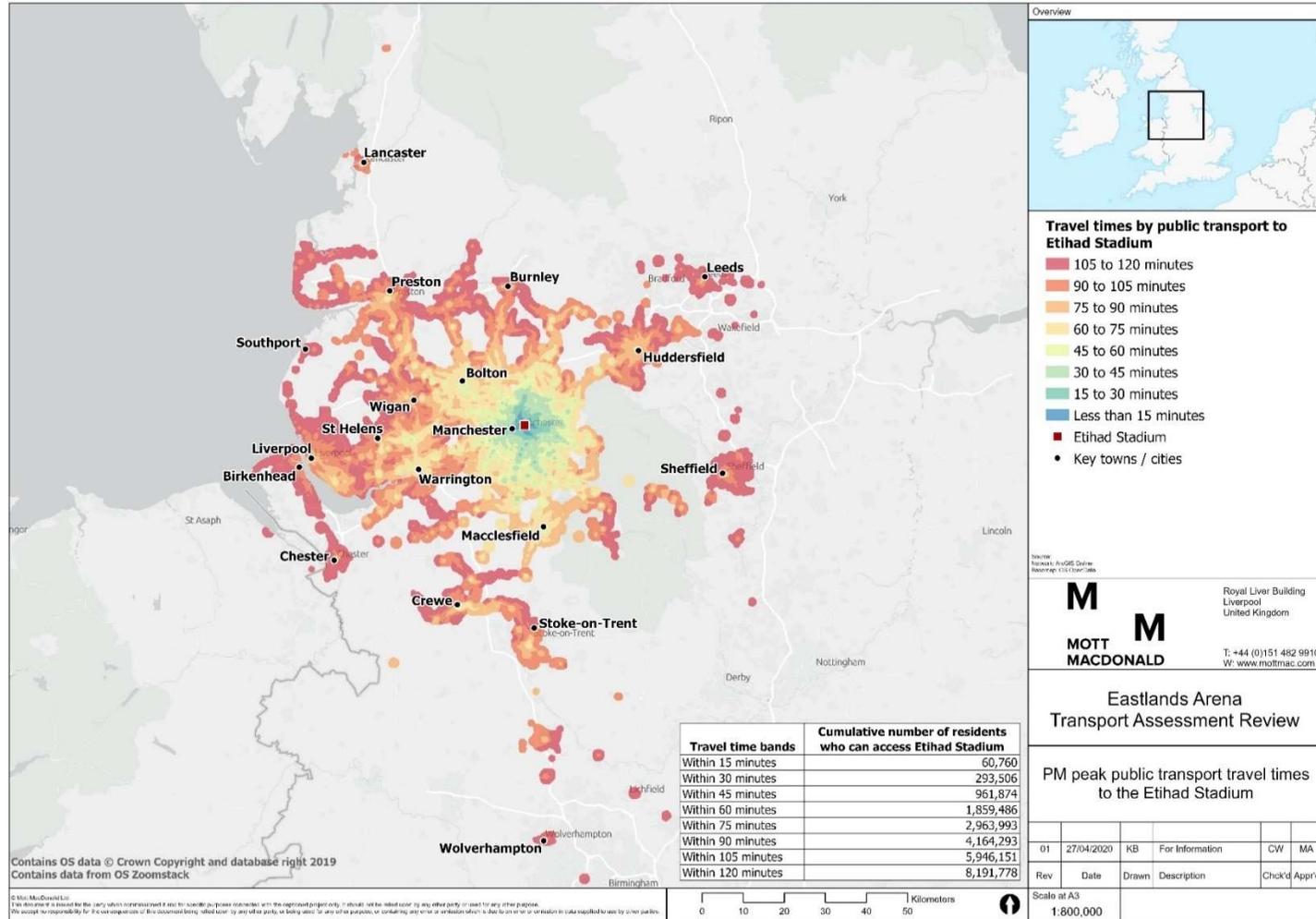


Figure 5.2: Etihad Stadium Public Transport Accessibility



Transport and Sustainability

Travel survey data received from Manchester Arena (figure 4.1) suggests that 65% of people within Greater Manchester would not be willing to travel more than an hour to an Arena event. This reduces to around 35% outside Greater Manchester. However, both cohorts indicated that a large majority, 87% and 75%, respectively would not travel more than 2 hours to attend an event.

Figure 5.3: Arena Travel Survey; Willingness to Travel

	Total	Live in City Centre	Live in Manchester local	Live outside Greater Man	Live in Greater Manchest
Up to 30 minutes	82 7.20 %	4 16.00 %	10 14.93 %	37 4.94 %	31 10.40 %
30 minutes to 1 hour	472 41.44 %	10 40.00 %	41 61.19 %	258 34.45 %	163 54.70 %
2 hours	352 30.90 %	4 16.00 %	10 14.93 %	272 36.32 %	66 22.15 %
3 hours	110 9.66 %	2 8.00 %	2 2.99 %	86 11.48 %	20 6.71 %
4 hours	52 4.57 %	2 8.00 %	0 0.00 %	43 5.74 %	7 2.35 %
5 hours	18 1.58 %	0 0.00 %	1 1.49 %	14 1.87 %	3 1.01 %
6 hours or more	53 4.65 %	3 12.00 %	3 4.48 %	39 5.21 %	8 2.68 %
Total	1139 100.00 %	25 100.00 %	67 100.00 %	749 100.00 %	298 100.00 %

Source: ASM Global/ Manchester Arena

The two-hour public transport catchment for the existing Manchester Arena is significantly larger than the Etihad site. Therefore, those potential attendees on the periphery of the Eastlands catchment but within the Manchester Arena catchment are more likely to choose to use private vehicles to access the OVG site. This is despite severe restrictions on car parking in the area and combined with capacity issues on public transport. The attractiveness of the site from an accessibility perspective is reduced.

Pedestrian Accessibility

Pedestrian accessibility has been considered in the form of crowd flow modelling, and detailed findings are appended to this review at **Appendix A**.

The crowd flow scenarios examined (or at least presented in the application) do not sufficiently test the capacity of the pedestrian network in and around the proposed arena – both in the range of scenarios examined, the assumed availability of routes and variation in pedestrian performance/behaviour that might occur within each scenario (and the subsequent sensitivity of the results to minor changes in this behaviour). They do not adequately address whether the pedestrian network produces expected levels of comfort and safety given the scenario conditions that it might face.

The analysis annexed to this report reveals that high levels of pedestrian crowding and congestion would be expected on Joe Mercer way and the access to the Etihad Campus Metrolink Station, particularly when there are combined events at the arena and stadium, or when ingress for an evening event at the arena coincides with egress from an afternoon match at the stadium. The following key points are noted from the combined Arena and matchday evening analysis, with a tabular summary of all scenarios presented at Table 5.1.

- Queues of up 1,200 people with full width of Joe Mercer Way in use rising to 2,500 people should 10% of the width not be used. There is potential for high levels of congestion at this location, which may result in spectator not being able to circulate northbound/southbound and/or impeding egress from the OVG Arena.
- The congestion on Joe Mercer Way is reflected in the crowd flow modelling presented in the Design & Access Statement [1], but the information provided does not show the impact further south on Joe Mercer Way or advise if significant management may be necessary to address resultant safety risks. These are significant omissions.
- The Etihad Campus Metrolink station will experience queues of 6,800 people (with the existing 6-minute service) with maximum individual delays of 110 minutes, due to the level of spectator

demand travelling westbound (City Centre). The delays experienced might encourage people to walk to the City Centre.

- Assuming TfGM were to provide a 12-minute service at Etihad Campus Metrolink station after an OVG Arena Only event, queues of 3,200 persons can be expected with maximum individual delays of 100 minutes. If TfGM were to provide a 6-minute service, queues of 1,100 persons can be expected with maximum individual delays of 45 minutes.
- There is limited information provided in any of the planning application documents on the detail of the emergency evacuation of the OVG Arena and how the proposed design and operation will accommodate a maximum capacity event simultaneously evacuating.

Table 5.1: Crowd Flow Modelling Summary

Scenario	Joe Mercer Way	Etihad Campus Metrolink	Ashton New Road	Gate 1 / Alan Turing Way	Rowsley Street Taxi rank
1 – OVG Arena weekday egress	A 20% reduction in width may result in 2,700 persons queuing	12-minute service has queue of 3,200 persons 6-minute service has queue of 1,100 persons	Need to understand impact of increased pedestrian demand on footway width available	Some localised queuing	Some localised queuing
2 – OVG Arena weekday egress + Etihad Stadium egress	May be queues of 1,200 persons. 10% reduction in width increases queues to 2,500 persons	Queues of 6,800 persons	Need to understand impact of increased pedestrian demand on footway width available + Taxi rank operation	Some localised queuing (1,200 persons)	Queues of 3,000 persons
3 – OVG Arena weekday ingress + Etihad Stadium egress	May be operating close to capacity. Need to consider impact of OVG Arena queues pre event.	Not assessed	Need to consider competing arriving and departing spectator flows + Taxi rank operation	Some localised queuing (2,200 persons)	Not assessed

The issues set out above, and in detail at **Appendix A**, show that the assessment of crowd movement undertaken as part of the planning application have not considered in full the impact of the additional pedestrian demand generated by the proposed arena on the Etihad Campus, the transport opportunities serving the site and the wider area.

Impact: Strategic/Background

Wider Assessment of Traffic Impacts

The distribution of traffic on the wider highway network on event days would be different to football traffic due to the location of trip origins and destinations. Therefore, a wider assessment of traffic impacts on the surrounding network would be needed to understand these changes. Although the TA has carried out assessment and estimated the increase in traffic flow and the results are not sufficient to provide a reasonable estimate the traffic impacts in terms of congestion and delay.

The assessment of arena traffic on the highway network is based on the origin and destination data from Travel Survey Data collected from the three Spice Girls concerts at the Etihad Stadium in 2019. The TA derived the post-code trips origin of the proposed OVG Arena visitors based solely on the Spice Girls data, it then estimated the percentage of total car trips travelling from 'North, South, East and West' to the development site and their parking destination.

The key points from the review are as follows;

- For a development requiring detailed consideration of its impact, the analysis applied is crude. The deduction of visitors' origin using only the ticket data from a single pop group does not seem to be inclusive, as various music genres can attract different demographics.
- Moreover, the total tickets analysed for the two weekday concerts is around 1,200 representing a sample size which in this case is relatively small when compared with the capacity of the concert. Thus, the results may not be wholly representative.
- **Paragraph 7.2.13** mentions the link flow is estimated by assigning trips to highway network based on the links most likely to be used for the journeys, derived by using Google maps journey planning tool. The percentage uplift of flows has been quantified using manual assignment which is basic and does not account for redistributive effects.
- This approach can only give a general image but fails to reflect the likely detailed impact. The manual assignment method fails to account for the driver's behaviour and impacts of user equilibrium on the network, which should be an important attribute in this case when vehicle flow is expected to be high and a large proportion of visitors could be new to the Manchester road network.
- A detailed traffic model covering the wider highway network and driver's behaviour should be used to assess the capacity of links to truly determine the impacts of developments.
- Regarding traffic impacts, the TA presents the results in the form of expected traffic generated by the Arena on the identified links. Apart from the anticipated increased traffic flow, it fails to reflect how that will influence the surrounding road network performance.
- It is expected that the proposed Arena will give rise to certain degree of congestion and increase in delay on the highway network, both of which, however, are not quantified in the TA. Strategic impact on the M60 is not covered at all.
- The above point is particularly important on matchdays, when the North East Quadrant of the M60 and the IRR both reach saturation. This has a major impact on journey times for the wider network and background traffic.

Table 7.16 of the OVG TA demonstrates the additional traffic flow on Mancunian Way during various peak periods, but again it does not quantify the impact with reference to congestion level. The link flow increase resulting from Arena traffic during departure peak may not bring serious impacts on the network, but the increase during network peak and arrival peak period should not

be ignored. For example, 17% increase on Mancunian Way Eastbound during network peak hour sounds insignificant, but in practice the 293 additional trips can cause a notable increase in delay on the already congested road during PM peak.

The TA does not analyse the impacts of additional flow on the typical baseline road network. It has failed to examine the influence to frequent commuters and the neighbouring communities, particularly when the anticipated increase in vehicle flow can happen up to 3 times per week.

Figure 6.1: Extract OVG TA, Table 7.16 IRR Impacts

Table 7.16 Link 22 – Mancunian Way Comparison with Baseline + Football Flows

Direction	Arena Trips	Baseline + Football	Baseline + Football + Arena	% Increase resulting from Arena
Network Peak Period (17:00-18:00)				
Eastbound	293	1,769	2,062	17%
Westbound	116	1,146	1,262	10%
Arrival Peak Period (19:00-20:00)				
Eastbound	390	1,786	2,176	22%
Westbound	155	1,150	1,305	13%
Departure Peak Period (22:00-23:00)				
Eastbound	395	634	1029	62%
Westbound	614	1,927	2,541	32%

Source: Buro Happold

In terms of other coincident events that may be taking place across the city, the TA has limited consideration about potential conflicts and mitigation measures. It placed much reliance on the TFGM Red/Amber/Yellow/Green (RAYG) analysis and assumed impacts on the network can be minimised.

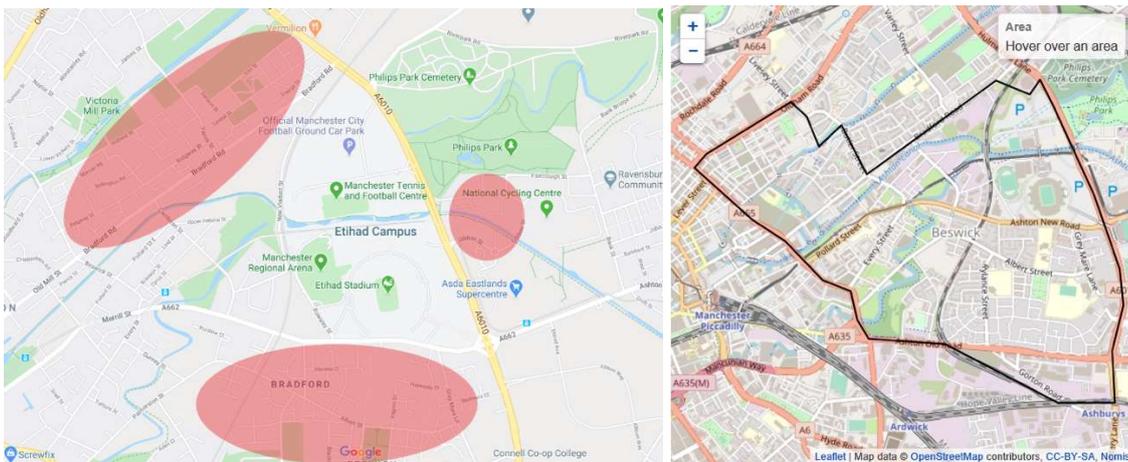
It is considered that more emphasis should be placed on wider Event Planning and Co-ordination, especially when there are several popular music venues presented across the city including the Manchester Arena with a capacity of 21,000, Victoria Warehouse and O2 Apollo. This places further responsibility on TfGM for delivery of a coordinated plan and the identification of an increased number of event clashes across a calendar year.

Impact: Local/Community

Local Communities

According to the population estimates², approximately 14,000 people are living in area 'Ancoats & Beswick' in 2018 and around 20% of whom belongs to the vulnerable groups (aged 0-15 or 65+). Figure 7.1 represents the residential communities near the proposed development site.

Figure 7.1: Residential Areas in Vicinity of Proposed Arena Site



The OVG TA does not analyse the negative impacts on the local communities brought by the Arena development, especially when the forecasted maximum number of events is 180 per year. This will result in abnormal traffic flow around the communities occurring circa 3-4 times a week throughout the year. Extra noise associated with the increased logistics movement will have a harmful effect on residents especially for children and elderly. Details on additional vehicle and logistics movement impacts are discussed below.

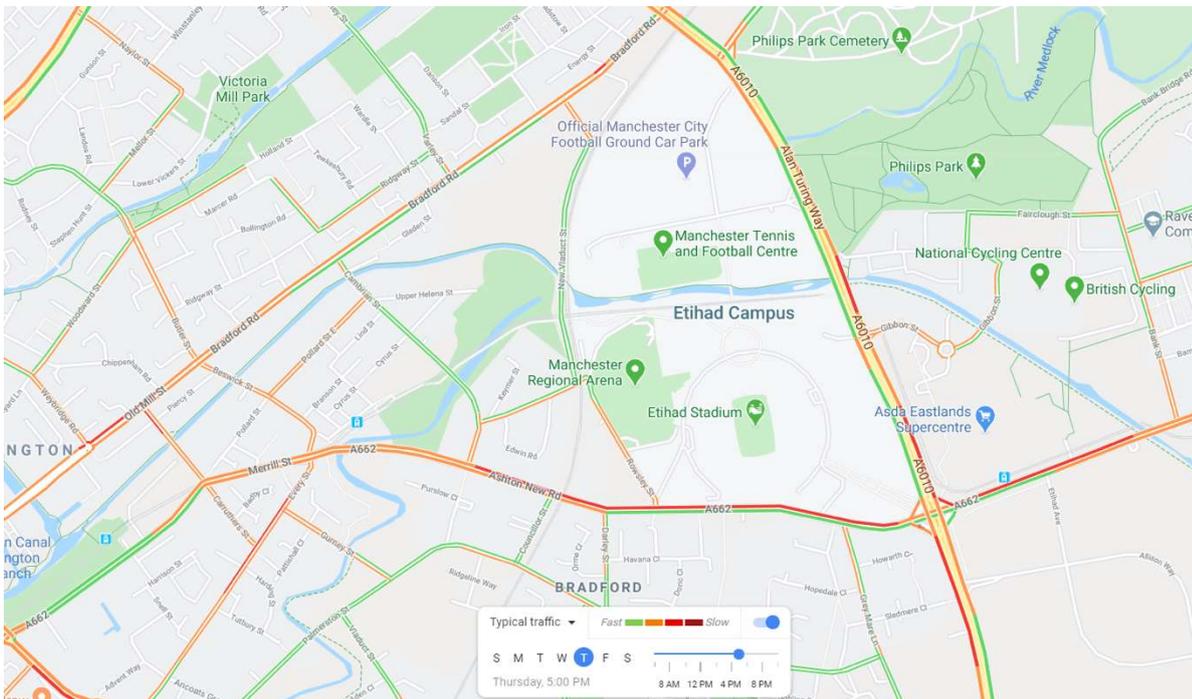
Additional Traffic

The proposed Arena is expected to attract a large number of person trips to the surrounding area, of which a significant amount will comprise private vehicle and taxi trips. **Table 6.10** in the TA forecasts more than 2,000 (arrival and departure) car and taxi trips will be generated by a concert during a weekday evening peak hour (17:00-18:00), while **Table 6.11** expects more than 2,700 and 7,000 car and taxi trips will be generated by an Arena event during the arrival (19:00-20:00) and departure (22:00-23:00) peak on a weekday respectively.

These additional vehicle trips will increase the burden of the existing highway network around Eastlands, particularly during midweek events with car movement ingress coinciding with the highway evening peak. During the PM peak period on a typical weekday, the local highway network is already congested around the area, as shown in Figure 7.2. The effects of increased vehicle trips to the area will be slower speeds, longer travel times, greater travel unreliability and increased vehicular queueing on the surrounding road network.

² Nomis – Official Labour Market Statistics
<https://www.nomisweb.co.uk/>

Figure 7.2: Typical PM Peak Traffic Conditions; East Manchester



Source: Google Traffic

Operational Analysis

Operational analysis in the form of LinSig junction assessments have been undertaken for 6 key signalised junctions. The analysis is presented for Arena events and Arena + Matchday event scenarios. The results provided in the main body of the TA are for the maximum DoS value only, and there is no presentation of arm by arm data or queue lengths. The reader of the TA is forced to read through multiple pages of LinSig outputs to derive any comparative data.

It is considered that presenting a single DoS value with no queue information does not provide an adequate summary of the analysis. Notwithstanding the shortcomings of the information presented in the TA, a comparative review of the summary results has been produced in Table 7.1 and 7.2 below.

Table 7.1: Arena Only Analysis Summary

Junction Name	1700-1800 Weekday			1600-1700 Saturday		
	Base	Base + Arena	Diff	Base	Base + Arena	Diff
Oldham Road (A62)/Hulme Hall Lane (A6010)	79.7%	95.3%	+15.6%	62.0%	104.4%	+42.4%
Hulme Hall Lane (A6010)/Bradford Rd	100.2%	105.7%	+5.5%	58.4%	99.6%	+41.2%
Alan Turing Way (A6010)/Briscoe Ln	88.3%	98.7%	+10.4%	59.6%	107.8%	+48.2%
Alan Turing Way (A6010) /Gate 2 Car Park Access	60.5%	89.1%	+28.6%	48.1%	62.7%	+14.6%

Alan Turing Way (A6010) /Ashton New Road (A662)	91.2%	103.2%	+12.0%	65.1%	96.6%	+31.5%
Alan Turing Way (A6010) /Ashton Old Road (A635)	97.7%	97.7%	+0.00%	70.2%	69.9%	-0.30%

The TA summarises the above analysis with the following paragraph;

“With the inclusion of the proposed arena event, the maximum DoS is shown to increase further with the Hulme Hall Lane (A6010)/Bradford Road and Alan Turing Way (A6010)/Ashton New Road (A662) junctions in particular exceeding 100%. However, the DoS on the remaining approaches at these junctions are shown to be below 85% and the predicted queues can be adequately accommodated within the lane capacity provided”.

Notwithstanding the limited results presented, it is considered that this statement is an inadequate summary of the results, given that no reference is made to the altered queue lengths associated with each of these DoS changes. Some of the increases, particularly in the Saturday peak are very notable and would on the basis of the information presented represent a severe impact.

Reference is made below to the TfL Modelling Guidelines, which uses advice from JCT Consultancy (the LinSig software producers):

*“Engineers should be mindful that **delay begins to increase exponentially above approximately 85% DoS**. At junctions operating close to zero Practical Reserve Capacity (PRC), corresponding to approximately 90% DoS, small reductions in capacity can result in a significant increase in delay. For this reason a DoS of 90% represents an upper limit of practical capacity for signalised junctions”.*

This statement clearly notes that any change from a DoS below 85% / 90% to that above such a value will result in a significant increase in delay, which the commentary in the TA fails to recognise.

Table 7.2 shows the with matchday comparative results.

Table 7.2: Arena + Matchday Analysis Summary

Junction Name	1700-1800 Weekday			1600-1700 Saturday		
	Base	Base + Arena	Diff	Base	Base + Arena	Diff
Oldham Road (A62)/Hulme Hall Lane (A6010)	76.70%	116.50%	+39.80%	51.80%	96.60%	+44.80%
Hulme Hall Lane (A6010)/Bradford Rd	101.90%	103.40%	+1.50%	45.20%	89.90%	+44.70%
Alan Turing Way (A6010)/Briscoe Ln	93.50%	95.00%	+1.50%	39.30%	101.70%	+62.40%
Alan Turing Way (A6010) /Gate 2 Car Park Access	64.20%	65.20%	+1.00%	39.20%	57.70%	+18.50%
Alan Turing Way (A6010) /Ashton New Road (A662)	99.50%	99.50%	+0.00%	63.60%	95.20%	+31.60%
Alan Turing Way (A6010) /Ashton Old Road (A635)	101.60%	101.50%	-0.10%	60.40%	60.30%	-0.10%

Similarly concerning results to the Arena only analysis, are derived from the with matchday comparisons presented in Table 7.2. The results demonstrate a clear **severe** impact at some junctions.

Journey Time Analysis

The OVG TA Addendum is included after Appendix K of the main report. This highlights Bluetooth data received from TfGM in relation to matchday and Manchester Arena events across key routes in Greater Manchester. The data outputs are included in the Addendum appendix and highlight the main differences in non-event and matchday or Arena events.

The Addendum describes the methodology used for calculating a proposed arena event on the local network. This includes assigning delay from local junction models to the routes affected as a result of the proposed arena traffic. This is a relatively crude approach to understanding the overall impacts on Greater Manchester's highway network. Delays across the conurbation are complex and are usually understood through the application of a validated, variable demand model. Reassignment of traffic as a result of delay will create differences across the routes, including those not identified within the Bluetooth dataset. The data is useful as a comparison of existing delay but is questionable when deployed as a forecasting tool.

The approach adopted by BH considers isolated delays from a few junction models in comparison to observed network delays associated with a matchday event and the Etihad stadium and an event at the Manchester Arena. These comparisons are shown in Figure 7.3 below.

Figure 7.3: Extract: Increase in Journey Times from Baseline to with Arena Traffic

Table 3.1 Increase in Journey Times from Baseline Resulting from Arena Traffic

Routes to/ from Deansgate	Delay in Journey Time Due to Additional Arena Traffic				
	Weekday Assessment Periods			Saturday Assessment Periods	
	17:00 – 18:00	19:00 – 20:00	22:00 – 23:00	12:00 – 13:00	16:00 – 17:00
Route 1: Bury New Road	00:00:38	00:00:50	00:00:00	00:00:23	00:00:00
Route 2: Rochdale / Oldham Road	00:03:21	00:00:45	00:00:05	00:00:27	00:00:29
Route 3: Oldham Road	00:03:28	00:00:54	00:00:17	00:00:32	00:00:36
Route 4: Ashton Old Road	00:00:42	00:00:57	00:00:30	00:00:27	00:00:17
Route 5: Hyde Road	00:00:15	00:00:20	00:00:16	00:00:10	00:00:07
Route 6: Princess Road	00:00:20	00:00:27	00:00:38	00:00:11	00:00:13
Route 7: Chester Road	00:00:11	00:00:15	00:00:12	00:00:07	00:00:05
Route 8: M602/ Regent Road	00:00:08	00:00:11	00:00:12	00:00:05	00:00:05
Route 9: A6/A580	00:00:08	00:00:10	00:00:08	00:00:05	00:00:03

Source: Buro Happold

Notwithstanding the potentially inappropriate nature of the comparative exercise, the results above do highlight increases of 3.5 minutes on both routes 2 and 3. These are afforded no explanation in the TA Addendum, other than to state that arena traffic will widely distribute onto the network.

Air Quality

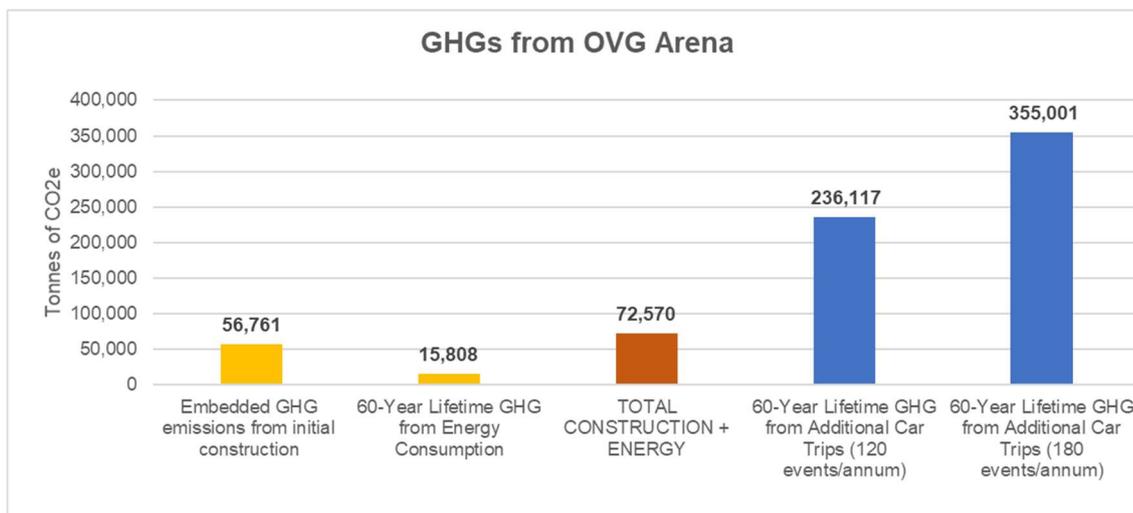
Further to the above information regarding additional traffic, delays and travel times, an analysis of vehicular related Greenhouse Gas Emission increases has been undertaken

The Climate Change assessment in the EIA report Vol 2 and Vol 3 has been reviewed and it is noted that the assessment quantifies that the development will add 0.5% to MCC's total city-wide carbon budget. This analysis however excludes any additional emissions from transport, so entirely misses the substantial further emissions attributable to additional private car trips people would make to attend events at the arena.

The additional car trips will result in an estimated 16,865 – 25,357 tonnes of CO₂e emissions per year based on a range of 120-180 events per year. This calculation is based on average car GHG emission per km of 0.1771 kgCO₂e/km from Department of Business Energy and Industrial Strategy data for 2019.

For comparison, the total 60-year lifetimes GHG emissions from the arena's energy consumption, as presented in the OVG's Environmental Statement, is 15,808 tonnes of CO₂e. Therefore, the additional car trips generate as much in a year as the development is estimated to generate in its whole lifetime. This is illustrated in Figure 7.4 below.

Figure 7.4: Arena Traffic Greenhouse Gas Emissions



Source: The Air Quality Consultants

The Manchester Zero Carbon Framework (2020-2038) DRAFT makes the statement that "*new buildings need to generate zero emissions*", and it is clear from the analysis presented that the OVG Arena would not comply with this requirement and runs entirely contrary to Manchester's commitment to achieving net-carbon zero by 2038.

Detailed findings on air quality can be found at **Appendix B** of this review.

Logistics Movement

The proposed Arena is expected to generate increased logistics movement caused by the production and delivery vehicles in the surrounding area. A significant number of movements will occur before between 0400 and 0600 according to the proposed schedule for Arena events (**Figure 7.5**). There is no consideration in the TA of local community impacts for these unsocial

hours' activity, and at the very least an Event Management Plan should seek to limit any community impacts associated with this.

Figure 7.5: Extract from Table 5.2 Logistics Schedule Proposed Arena

Activity	Matinee Event (Monday – Sunday)	Evening Event (Monday – Sunday)
Production vehicles arrive on site	04:00	04:00
Event load in commences	06:00	06:00
Early doors to concourses/ Premium entrance open	11:30	17:30
Main doors open	12:30	18:30
Support act commences	13:30	19:30
Main act commences	15:00	20:45
Event finishes	16:30	22:30
Egress complete	17:00	23:15
Load out complete/ last truck off site	03:00	03:00

Source: Buro Happold Transport Assessment, Eastlands Arena

Up to 26 trucks for production arrive on site at 04:00 and event load in commences at 06:00 for both matinee and evening events, while load out completes and the last truck leaves site at 03:00 the following morning.

On a non-event day, up to 16 trucks, half of which are HGV, are responsible for the Arena's deliveries and servicing. Again, a notable amount of environmental noise will be generated by the additional traffic and loading in process. As the anticipated number of events is 3-4 per week, residents living in the surrounding area will have to experience 4-6 days of increased early morning logistics movement from 03:00 or 04:00 every week. This has a potentially serious effect on health and wellbeing.

In summary, the proposed Arena site is located close to residential areas which will be materially adversely impacted by the unsociable operational hours. The local highway network, including Alan Turing Way and Ashton New Road already experience traffic issues within the network peak hours. The combination of match-days and additional events at the proposed arena will have a significant adverse effect on residents and business owners alike. Journey time analysis provided is limited in its scope and methodology in that it does not account for equilibrium across the network.

Local Highway Amendments Safety Commentary

A series of drawings have been produced within the OVG TA to illustrate proposed changes to access points to Alan Turing Way from the campus car parks. This section includes a short summary of the key safety points associated with the layout designs.

Northern Car Park Access, General Arrangement, BRA-BHE-XX-XX-DR-C-0213

The northern access is left turn in/out only, this means all drivers using the northern access will be heading north on Alan Turing Way and will have passed the southern access. They are therefore likely to turn at the first junction and not proceed to the northern access.

The proposed internal signing would appear to suggest that vehicles can turn right onto Alan Turing Way from the northern access, however all vehicles must turn left. It also suggests that it is a two lane exit when a single lane is shown on the drawings. Users are likely to use the exit

with the smallest queue and may therefore use the northern access even though they wish to travel south. This is likely to result in weaving movements following the end of the coned area and motorists may undertake inappropriate turning movements including 'U' turn manoeuvres at following junctions (Briscoe Lane) or elsewhere. The temporary arrangement will need to be clearly signed from the access road and from the car parks.

Northern Car Park, Temporary Egress, BRA-BHE-XX-XX-DR-C-0235

The temporary layout is understood to be in operation on arena event days only. Matchdays will remain as the permanent layout. However, it is not clear how this will be managed on the combined match and event days. Adequate warning of the temporary layout and nearside lane closure on Alan Turing Way will be required, otherwise this could lead to late lane changes and side swipe collisions.

How the existing markings on event days will be managed is unclear, as these could be contradictory to requirements, signs will need to be covered, and developed strategy in place for managing the changes. Red surfacing is shown on the plan however it is not clear whether this is indicative of the coned off area or will be implemented as a contrasting material.

The temporary layout signs show the northern access as 'Arena service entry only'. This would appear to result in no left turn access for vehicles accessing the car park during arena events.

Sport City way Public Realm, General Arrangement, BRA-BHE-XX-XX-DR-C-0210

The sign for motorists approaching the southern access from Alan Turing Way suggests the left turn is for VIP drop off only, whereas signing on the access road and on the northern arm indicates all car parks. At the southern access car parks H & G are signed (indicating vehicles must turn right) but there is no signing for car parks J & K from this direction. There is no indication of access to car park I.

Users parking for the arena will have to pre-book car parking tickets. Those attending for football matches currently pay on entry. It is not known how the proposed arrangements will cater for both users. There appears to be only two sites for ticket validation which each have 600 vehicles/hr capacity. This is unlikely to accommodate all traffic, particularly if these are the only two ways into the car parks and given an event could be on at the same time as a football match, queuing could be extensive.

The southern car park access is to be widened for two entry lanes entry and one exit lane. Queuing to exit the site is likely to extend back into the car park, which is what happens following a football match with vehicles unable to move. Following a match, queuing also occurs for some time on Alan Turing Way, this will be even worse if an event finishes at a similar time to a football match. Congestion and difficulty parking may also occur if one event is starting as another one finishes, particularly if vehicles are queuing to leave the site, hindering access for those arriving. The proposed layout shows limited carriageway for vehicles to queue at the signals which is likely to extend back into the car park. Most vehicles are likely to be turning right (left turning vehicles are more likely to use the northern access).

The purpose of the red surfacing is unclear. The exit from the southern access is two lanes with the offside lane marked as ahead, however this leads into a set of cones, where the road reduces to a single lane.

Accident Data Analysis

Accident analysis has been carried out using the detailed STATS 19 data obtained from TfGM. Discussion of the accident information is limited to the identification of clusters and the types of

accidents involved. What is missing is assessment of when the accidents occurred and whether there was an underlying pattern to timings. For example, at Ashton New Road/Alan Turing Way; pedestrians running or walking into the carriageway is noted as a causal factor. What is not clear is whether this was due to crowded conditions on footways or whether these data correspond with matchdays at the Etihad Stadium.

This is also the case for the Alan Turing Way/Briscoe Lane junction, which suggests 'failure to look when turning' amongst other driver errors are causal factors. Whether the risk is heightened at this junction due to additional turning traffic from the Etihad campus car parks is not discussed.

Accidents on the junctions with Great Ancoats Street (Inner Relief Route) are identified, it is accepted that the traffic volumes and the movements of pedestrians outside of events at the Etihad are significant. However, there is no analysis of the data to identify whether matchday pedestrian numbers have increased these figures.

Accident clusters, anecdotally, are commonly located at or around junctions. However, there appear to be several accidents recorded on the Ashton New Road link back towards Holt Town. There has been no discussion of these incidents within the OVG TA to indicate whether this is influenced by events at the Etihad Campus.

The overall summary of accidents and safety with the OVG report is limited. A review of the detailed data provided should focus on operations at the Etihad campus. This would then identify whether the expansion of facilities to include an arena, directly affect the accident statistics on the surrounding highway network.

Car Parking

Parking Shortfall

The proposed arena is to be constructed on an existing car park for the Etihad campus and reduces the total parking from 4,200 to 3,700 spaces.

It is also understood that there will be further development proposed in the future which will further compromise these numbers, with these car parks likely to be built upon.

The OVG TA highlights (Section 5.4) that up to 3,000 parking spaces will be available during non-match days for specific arena events. Despite this volume of parking availability, the total vehicles, according to mode split estimates will be in the region of 5,000- 5,500 vehicles, (Table 6.11).

These figures are likely to be further impacted by the need to accommodate coaches, staff and on occasion Pick up and Drop Operation (PUDO), and the TA provides little in terms of detail regarding how this would be accommodated at the proposed site.

Coach – an average of 29 are projected within the EMP = approximately 200 car parking spaces required.

Staff – up to 559 members of the arena event day staff team will finish working duties after the last public transport services have finished = approximately 400 spaces required.

PUDO – pick up drop operations for specific events will require spaces of the car park to be allocated for this purpose = up to 300 spaces required.

The combined match-day + arena event worst case reduces parking availability further to 500 spaces allocated to the proposed arena within the campus car parks. Parking external to the site will also be in direct competition with match-day parking. There is virtually no assessment of the excess parking availability around the site within the OVG TA. This would suggest reliance on unregulated off-site parking for which assumptions on numbers and availability have not been quantified. This will ultimately place additional pressure and burden on both the key route network and the communities which lie beyond the extent of the CPZ, such as Newton Heath, Monsall, Miles Platting, Ancoats, Openshaw and Clayton, where car excess car parking demand is likely to manifest.

Without this analysis it is not possible to assume that the proposed / calculated mode split figures presented in the TA for car drivers and passengers could satisfactorily and safely be accommodated during the peak demand. This will place considerable strain on the local highway network, not only for arrivals, but also vehicles circulating, looking for adequate parking spaces.

Communications to ticket holders will be vital, as identified within the OVG TA mitigation plan, but it is considered that this measure will not eliminate significant highway and parking impacts around the proposed arena.

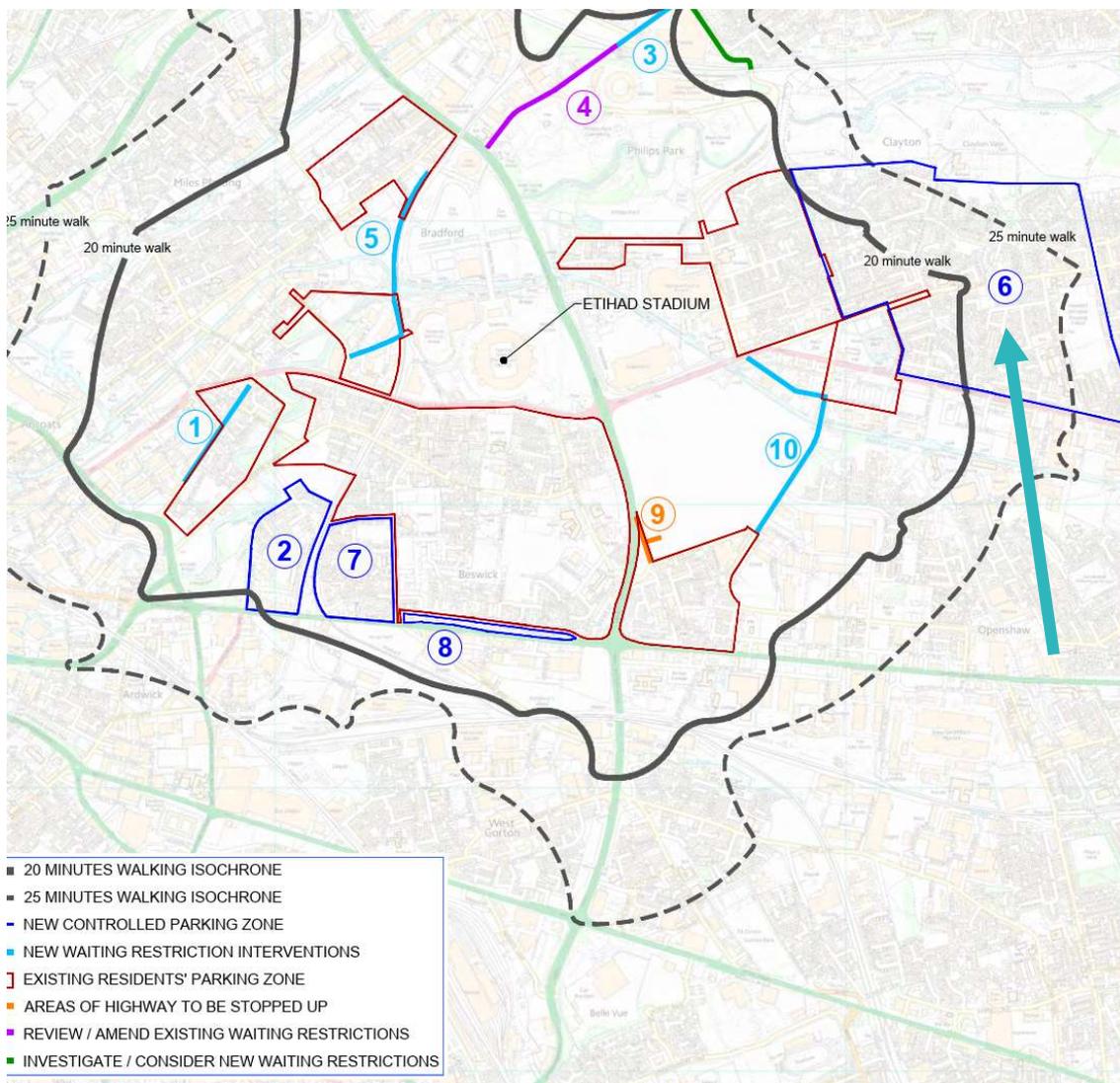
Controlled Parking Zone (CPZ) Expansion

An expansion of the existing CPZ has been proposed in the mitigation section of the OVG report to cover a limited area to the East of the site. This proposes increasing the coverage of the area eastwards to Edge Lane in Clayton extending north to Clayton Vale and Ashton New Road to the south.

The extent of the proposed CPZ plan in the OVG plan mirrors those included as mitigation Scheme 1 within the 2013 Etihad expansion planning application (104315/FO/2013/N2). See Figure 8.1 for an extract of the plan included with the planning application. Area 6 identified on the extract shows the boundary extents for the Stadium expansion. This identifies the border extended to Edge Lane.

To date the Etihad Expansion CPZ extension has not been implemented. However, the mitigation for the proposed arena does not offer anything beyond what has already been subject to planning agreements with Manchester City Council. It is therefore incorrect to identify this as a new substantive mitigation measure, as it is merely offering something which another development is already committed to providing in order to mitigate its associated adverse effects.

Figure 8.1: Proposed CPZ, Etihad Stadium Expansion 2013 - Extract



Source: MCC Planning Portal 104315/FO/2013/N2 Transport Assessment

Mitigation Proposals

Physical Transport Interventions

Physical interventions are very limited within the mitigation package, these amount to controlled parking on adopted streets and signage, maintenance and very minimal footway works on routes to and from the city centre. No discussion is made of off-site parking, or enhancement to tram and bus infrastructure. The opportunity to enhance capacity on the Metrolink is very limited due to the constraints on the network capacity due to power supply and rolling stock availability, highlighted in previous sections. Access amendments are limited to access to the arena parking areas without consideration of wider matchday implications.

Resident Parking Zone Improvements

Highlighted in the previous section the CPZ expansion is not a new proposal and the extents are as per the mitigation package put forward for the Etihad Stadium expansion. This is therefore an existing scheme (yet to be implemented) which was agreed as mitigation for a previous planning application.

Walking and Cycling Route Improvements

Given the overall shortfall in public transport capacity to meet any additional demand, heavy onus is placed on walking options in particular. For context, it is expected that up to 20,000 people (on arena and stadium event days) will need to walk to access available transport options, both in terms of public transport and car parking. This is expected to place significant additional pressure on the highway network, and create unacceptable additional risks both in terms of spectator safety and issues related to crime and public order.

Rail and walk from Piccadilly assumes good mobility and light/weather conditions. It is a lengthy and unattractive walk once outside the city centre, which is not considered or accounted for in the TA. The walking route mitigation proposals do not substantially improve the position above the Etihad Stadium expansion approval. The very limited mitigation measures proposed are meagre and will be ineffective. This is elaborated further in the below sub-sections.

Ashton New Road

Proposals are primarily aesthetic enhancements, which can help promote a route. Much of this should already be carried out through routine maintenance. However, expansion of footway and improvements of pinch-points are limited to an existing issue at the railway bridge, with little descriptive detail. The volume of people expected to walk back to the city centre, particularly during combined event days, is very large. Spillage into the highway and obstructions will be common unless further permanent enhancements are introduced, which contravenes the National Planning Policy Framework at point 109

City Link Route

Again, general maintenance and aesthetic improvements are put forward with proposals for signage. There is very little drawing detail relating to the proposals, signage detail or livery. Hard infrastructure improvements are not suggested for footways or pinch-points. Routes around Holt Town and Pollard Street tram stops are problematic during matchdays, footway and footpath improvements should be assessed and reviewed and added to the package as a minimum.

Ashton Canal Towpath

This route passes through canal tunnels with known anti-social behaviour problems, including drug taking. For significant crowd movement the route is wholly inappropriate for use due to lack of footpath width and no barrier protection from the canal. The bike ramp is noted as an enhancement, otherwise mitigation amounts to routine maintenance. No drawings are submitted demonstrating thought or design behind mitigation works.

Cycle Parking Improvements

Cycle parking aligns with the campus strategy and is broadly suitable for staff at the site. It will not, however, mitigate the widespread impacts on transport networks during event days.

Campus Access Amendments

Amendments to junction access points are limited. There is a reliance on temporary arrangements at the southern access point, which will have implications on temporary traffic management and differs from matchday arrangements. This has safety implications for general traffic on Alan Turing Way and those familiar with the standard parking access for the stadium.

Operational Transport Interventions

The majority of the associated risks of the proposed arena transport impacts are to be mitigated through the operational transport interventions. As outlined in the analysis of the Travel Demand Management, it is likely this would influence a maximum of 15-20% of attendees at the arena. The remainder will continue with their primary intended travel plan, which is likely to predominantly be via less sustainable transport options.

Arena Framework Travel Plan

The application places a heavy onus on the importance of influencing spectator and staff travel behaviours to mitigate associated transport risks, reduce car use and ultimately increase the use of public transport and active travel options. For the reasons already given, this will be ineffective.

The Framework Travel Plan submitted alongside the TA, primarily focuses on 'Arena staff' travel options, with limited consideration of arrangements to support spectators.

It is proposed that 769 'Arena staff' will be resourced to work on a standard Arena event. Of the 769, up to 73% (559) members of staff will finish their duties after the public transport network has already stood down. This means that for nearly three quarters of the workforce, the only viable option is to travel by car, especially considering that the late evening event finishes may not be conducive to the desire of staff to walk home in the dark. This would mean that the Mode Share analysis proposed for staff within the TA, which is derived from 2017 Etihad Stadium staff travel surveys, may be unrepresentative of the site operation.

With regards to spectators, pre and post event catering offers are suggested within the EMP/Travel Plan, to flatten arrival and departure profile. 2 factors will mean this is likely to have little to no success:

- General Admission gates open at 18:30. Clearly, this means there is little point arriving prior to this.
- Public transport services stand down at 23:30 – an attempt to delay departure would mean remaining spectators are unable to access public transport options.

Table 9.1 overleaf summarises a review of the Travel Plan and indicates that irrespective of the Framework nature of the document there are still a number of aspects which could be improved

or are missing, thereby casting some doubt on the ability to influence staff travel at this stage, with spectator travel given little mention at all.

Table 9.1: Travel Plan Summary Review

Travel Plan Initiatives	Included in the OVG Arena Travel Plan	Blacc/Mott MacDonald Comments/Queries
<u>General Travel Plan Initiatives</u>		
Creation of Travel Plan coordinator Role	The Applicant will appoint a TPC one month prior to first occupation of the site and will give details of the named representative to MCC/TfGM.	Noted
Provide Travel Plan notice boards in staff common rooms located across the development which display up to date bus and train service information as well as route maps for active modes.	The TPC will ensure that up to date public transport information and other Travel Plan information and events are made available to employees, including being placed in prominent locations such as staff rooms and noticeboards.	Noted
Display season ticket information on the travel plan notice board.	Not mentioned	This measure secures the success of the above point. Long lasting success on staff PT usage will be compromised without this measure
Staff induction pack which contains information on sustainable modes of transport including a map of the local pedestrian, cycle. Public transport network and public transport timetable.	The applicant will prepare a Travel Information Pack for employees highlighting the objectives and philosophy of the Travel Plan, which will include promotional information in relation to cycling and walking, as well as details relating to public transport and local car share schemes. The production of the Travel Information Pack will be funded by the applicant and will be prepared three months prior to opening.	Reference should be made to this measure being continually implemented for new employees if the site were operational
Participating in European Mobility Week.	Not mentioned	This would work well with site specific targeted events such as walk/cycle to work
Promote websites which contain information on public transport services and walking and cycling.	The Travel Information Pack and website information will include details on where to obtain timetable information for bus, Metrolink and rail services as well as TfGM's journey planner. The quarterly Travel Plan Newsletters will also include links to this information including any changes to routes and frequencies	Noted
<u>Cycling Initiatives</u>		
Providing promotional material which can be sent to staff which outlines the health benefits of cycling.	Reference is made to the Travel Information Pack containing promotional information in relation to cycling and walking	Noted
Providing secure undercover cycle parking facilities, shower and changing facilities and secure lockers.	The TPC will prepare a plan showing the location of cycle parking across the Etihad Campus, which will be given to all employees and visitors and incorporated into marketing/promotion material. The Etihad Campus currently has a total cycle parking provision of 284 spaces (in the form of 142 Sheffield Stands) at various locations around the Campus. In addition, the Applicant is proposing to provide an additional 240 covered cycle spaces in locations where cycle routes enter the Campus. The applicant will also be providing showers, lockers and changing facilities for employees at the proposed Arena.	Noted
Set up a "Bike Buddy" programme where regular cyclists provide advice for first time cycle commuters.	Not mentioned.	This initiative could be tied in with the bicycle user group.
Establish a Bicycle User Group.	The TPC will investigate the creation of a Bicycle User Group (BUG) for employees at the site	Noted – although investigation of a BUG and actually committing to delivering one are two different things of course.
Provide interest free cycle loans	TPC to provide information on the Government's cycle to work scheme, which introduced a tax exemption allowing employers to loan cycles and cyclists' safety equipment to employees as a tax-free benefit. The applicant will periodically offer incentives to employees to promote cycling such as loans, discounts and vouchers towards the cost of purchasing a bicycle and/or bicycle equipment. The TPC will investigate discounts/special deals for employees for the purchase of bikes, equipment and clothing.	Although this is only a Framework Travel Plan, the lack of commitment to measures such as this other than 'periodically' and 'investigate discounts/deals' is considered insufficient
National cycling initiatives	The TPC will also encourage employees to walk and cycle by providing information on the following: 'Bike Week' (www.bikeweek.org)	Noted
Other measures:	The TPC will also encourage employees to walk and cycle by providing information on TfGM's website which encourages people to cycle, including links to cycle maps and cycle training sessions and details on local cycle hubs, As well as information in the location of nearby cycle shops, cycle hire stations, and contact information of the nearest bike retail stores.	Noted
<u>Pedestrian Initiatives</u>		
Providing promotional material which can be sent to staff which outlines the health benefits of walking.	Reference is made to the Travel Information Pack containing promotional information in relation to cycling and walking	Noted
Ensuring the council maintains footways around the site to maintain access and that street lighting is adequate and properly maintained.	The applicant is committed to improving existing walking/cycling route(s) between the City Centre (Great Ancoats Street) and the Etihad Campus (subject to relevant approvals).	This is noted, however it is subject to further design considerations before the measures can be considered valid for application.

Establish a borrow a broly scheme for staff use during periods of inclement weather.	Not mentioned.	A simple measure that could be referenced in a Framework Travel Plan
Liaison with Manchester Police to ensure that those choosing walk to work have advice on safe routes.	Reference is made to the Travel Information Pack containing promotional information in relation to cycling and walking	This is noted. However specific information on safe routes is further encouraged as a measure
Other measures:	The TPC will also encourage employees to walk and cycle by providing information on National Walking Month, which includes 'walk to work' week	Noted
<u>Public Transport Initiatives</u>		
Provide bus taster tickets	Not mentioned.	A simple measure that could be referenced in a Framework Travel Plan
Provide copies of bus, train and tram timetables on the travel plan noticeboard.	The Travel Information Pack and website information will include details on where to obtain current timetable information for local bus, Metrolink and rail services as well as TfGM's journey planner (www.mytfgm.com/#/planner/). The quarterly Travel Plan Newsletters will also include links to this information including information on any changes to routes and frequencies.	Noted
Other Measures:	The TPC will offer personalised travel planning guidance to employees and this will be promoted through the quarterly Travel Plan newsletter. This will include help in providing localised, simplified travel information on their best option for use of other sustainable means of transport as an alternative to private vehicles. This will be combined with information regarding any incentives available such as public transport/cycle vouchers, shuttle bus services etc.	Noted
	On event days a shuttle bus service will be provided for employees and spectators travelling between the Etihad Campus and Manchester City centre and this will be promoted through marketing material. These services will be available for employees after the event has ended.	Noted
<u>Private Car User Initiatives</u>		
Establish a formal car sharing scheme.	The TPC will encourage employees to join a car-sharing scheme, such as CarShareGM. which will be promoted to minimise SOV car trips. Car sharing will also be promoted through website information given to event attendees.	No formal car sharing scheme is proposed to be established

Messaging and Communication

In para 6.91 of the EMP, it is proposed that a key form of messaging for transport advice is via Variable message signs and matrix signs from within and in the vicinity of the arena. Whilst this might be useful for conveying disruption messages or informing background traffic, it is not considered a useful solution for travel advice given spectators are already on route or physically at the venue.

Park and Ride Promotion

The total car parking capacity of Park and Ride options which are linked directly to the proposed venue, (without the requirement for interchange) is 417 spaces, both of which are located on the Ashton Metrolink line at Ashton Moss (211 spaces) and Ashton West (206 spaces). On Weekdays, the associated car parks remain full until approx. 18:00, utilised by commuters travelling towards Manchester City Centre. On matchdays at the Etihad, this facility is fully utilised by football spectators.

Bus shuttle promotion

On an Arena Event day, the TA stated in **Paragraph 7.1.15** that arena only event dates are expected to generate 1,933 passengers.

On a combined Arena Event with Football Match day, **Paragraph 7.1.59** states the arena and Etihad Stadium will generate 5,917 passenger trips.

Ultimately to reconcile the total available demand in each of these scenarios would take a significant effort and resource in terms of bus, personnel, infrastructure and space.

Between 24 and 74 buses would be required to facilitate these numbers of customers travelling by bus shuttle. Accommodating this level of operation would require both Ashton New Road and Alan Turing Way to be closed to non-bus shuttle traffic.

Management of Pick up and Drop off

Pick up Drop off demand is likely to vary considerably, event by event dependant on visitor demographics and age range. An event which is likely to attract a younger audience will have significantly greater demand in this area. Recent examples of this type of scenario at the Etihad Campus are not positive.

For those events with higher likely demand for PUDO, an on-venue solution would be necessary, meaning further losses to the (up 3000) allocated car parking spaces.

Marshalling

It is projected that up 20,000 spectators on combined matchday/arena event days/evenings may need to opt to walk to connect with public transport capacity in the city centre of Manchester. These numbers will require a specific operational plan to address the associated risks that relate to this arrangement. A considerable allocation of personnel will be required to ensure this is safely facilitated. Major risks exist in terms of pedestrian vehicle interaction, Metrolink crossing, canal towpath, and crime. The deployment would need to be multi discipline, with security, traffic and an ask on GMP police resource too.

Summary, Conclusions and Recommendations

Summary

The following sub-sections present a summary of all the findings from this review.

Trip Generation

Trip Generation and the forecasting of the total person trip changes expected as a result of any proposed development is one of the fundamentals of any design process. The forecast demands are the start point for all other considerations and any flaws in the approach adopted and numbers derived can have a significant bearing on the veracity of the proposals and conclusions drawn.

- No justification is provided for the derived spectator arrival profiles.
- The mitigation measures proposed in the TA should be derived as part of the process of ameliorating any defined impacts, and not as a pre-defined justification for an assumed mode share. This is effectively assuming the mitigation measures work before they have been demonstrated to do so.
- The reference to evidence at the Emirates and White Hart Lane stadiums is considered potentially inappropriate for the OVG Arena. If this were a TRICS analysis, then the Greater London area would be discounted as a matter of best practice and it is felt that the travel characteristics of these areas are not comparable with the proposed OVG Arena location.
- The statement that the observed Etihad Stadium mode share could be some 12-15% lower for the OVG Arena is considered unfounded, as well as being an inappropriate comparison given that matchday events could well have different travel characteristics than an arena event.
- It could be expected that travel characteristics for a matchday event and an arena event will be significantly different, given that attendees at football matches are more regular travellers to the location and there are multiple supporters clubs, travel groups and car sharing initiatives running between fellow supporters.
- The TA assumes a car occupancy value of 2.4 derived from the TA produced for the Etihad Stadium expansion submitted in 2013. No justification is presented that a matchday car occupancy and an arena car occupancy would be similar, and the mode share evidence presented from the other arenas would suggest that very notable differences would occur. A 2.4 car occupancy value is an output of multiple supporters' clubs, travel groups and car sharing initiatives running between fellow supporters. There is no evidence presented that this would be the same for an arena event.

Sustainable Access

Walking routes are heavily relied upon in the OVG application, mode splits and mitigation have key focus on getting arena attendees back to the city centre on foot. Routes to and from the Etihad campus remain underdeveloped, and hard infrastructure proposals within the mitigation package do not substantially improve the walking routes. General maintenance, minimal signage and soft landscaping are unlikely to materially improve walk routes. It is also questionable whether, during winter months, that the mode split will be sufficient to avoid large scale shift to private vehicles or taxis.

Metrolink and bus capacities are quantified in the OVG report. The mode splits for events and match-day clashes are unlikely to cope with demand. With up to 180 events per year, the impact on weekday commuters will be highly disruptive.

Rail options to East Manchester, Tameside and the eastern suburbs of Stockport are serviceable, but as a connection from the city centre, Ashbury's station is poor. The walk to the station alone is 1.7km from the proposed arena site.

- Bus strategies is not well developed and relies on existing match-day services as a comparison. Background capacity is not quantified for non-matchdays and supply and timing of shuttle services have not been fully identified.
- Metrolink comparisons use match-days as a baseline. Uplifts have not discussed against the capacity limitations on the Ashton line, which are critical to understanding pressure on the network.
- Estimates for worst case matchday plus arena events suggest over 8000 trips for the worst-case departure figures, which is beyond the maximum capacity; (10 double trams per hour one direction; 4000 passengers). It also ignores background usage on the network.
- Rail services from Ashbury's are limited to 2 per hour penalising short trips linking from Piccadilly. The station is 1.7km from the site and has poor access for the mobility impaired. Platforms are narrow and will not handle surges in demand following events.
- It is unclear if any prior engagement with Network Rail or train operating companies has taken place.
- Reliance on walking for connection to the city centre assumes a good level of mobility, reasonable weather conditions and a familiarity of the route; it is over 2 km from the city centre to the site. The capacity of the footways, particularly around Holt Town are limited, pushing pedestrians into the carriageway.
- Taxi PUDO facilities around the site are very limited. In particular the location identified at Rowsley Street/Ashton New Road within supporting planning documents is not considered viable. This section of highway will be inaccessible at peak ingress and egress to taxis, due to significant congestion and associated event road closures.
- Assumptions of 1500+ persons using the taxis will present notable capacity issues on surrounding highways. This figure will also vary significantly depending on demographics and seasonal conditions. Attempts at formal ranks around the site have had limited success.

Travel Demand Management and Mode Shift

Controlling travel patterns, characteristics and demands for large and disparate audiences, especially when combined with an adjacent major event at the Etihad Stadium requires significant and co-ordinated Travel Demand Management measures, especially for visitors who come to the area for a one-off event rather than those who visit regularly, such as Etihad Stadium season ticket holders (in contrast with matchday visitors to the Etihad Stadium, visitors to the arena are more likely to fall within the former category). Combined with a reduction to 500 parking spaces from 3000 (non-match) will require highly coordinated communication but will ultimately result in increased prevalence of temporary unlicensed car parking.

- The mode splits projected in the Event Management Plan are considered to be unattainable. This is due to the physical limitations of the network itself in terms of capacity and direct connectivity and other competing demands on capacity further constraining the public transport offer.

- Heavy onus is placed on influencing travel behaviours to reduce the number of those that intend to travel by car, but without any reasonable alternative public transport options this can never be an effective mitigation.
- Reroute options are limited with alternative corridors similarly susceptible to congestion at expected peak times.
- Visitor demographics will mean that transport behaviours and resultant impacts are erratic with no two event dates the same.
- Venue matrix signs and VMS are not effective method of communication for spectators. Heavy focus on Variable message signs and on-site screens to convey transport messages. This is not an effective means for communicating transport advice to spectators. They're already on route.

Site Accessibility

The Etihad campus draws in large numbers of visitors every year, this includes not only matchday crowds, but concerts and other large events. Public transport links are reliant on Metrolink and high frequency bus services. The comparison population catchments and travel times between the existing Manchester Arena and the proposed site are clear. The Etihad campus is materially less accessible to a significant number of people, not only in Greater Manchester, but across the wider North of England, than the existing Manchester Arena. Journeys via public transport to the proposed arena site will require more interchange penalty resulting in extended journey times and less population coverage within reasonable travel isochrones.

- The proposed site has a much more limited population catchment for public transport users when compared with the existing Manchester Arena. Within the 15-minute to 1-hour isochrones this is less than 50% in certain cases. This makes the modal split assumptions for private vehicle traffic at the proposed arena site, much less reliable. In practice, ultimately this means more people will be reliant on travelling by car.

Impact Strategic/Background

No interrogation of GM strategic models has been carried out to understand the wider impacts of the arena construction. The journey time methodology used is relatively crude and relies upon delay factors ascertained from local junction models added to the background Bluetooth data from TfGM. Whilst the background comparison is useful, the use of this data in forecasting delay impacts on the selected routes is limited.

No attempt at understanding impacts on the Strategic Road Network has been carried out, especially for combined events and matchdays. Anecdotally impacts on the NE quadrant of the M60 for match days can affect mainline speeds and flows negatively. Discussion with Highways England (HE) is needed for an application of this nature, regardless of its overall distance from the network.

- There has been no assessment of impacts on the Strategic Road Network, notably around the NE quadrant of the M60. This part of the network is known to experience congestion during matchdays and stadium events.
- There has seemingly been no discussion/contact made with Highways England to scope the reporting of the impacts mentioned above, with respect of the Strategic Road Network.
- Percentage changes to traffic flows have been quantified on the IRR. However, there has been no analysis of how this relates to congestion and delay, especially during network peak hours.
- Some attempts, within the supplementary Transport Assessment, to quantify journey time delay across the IRR and the City Centre radials have been made using Bluetooth data. The

methodology for assigning delay is crude with local junction model delays factored across specific routes. No attempt to use GM strategic models has been made.

Impact Local Community

Controlled parking areas proposed do not expand upon existing proposals. Impacts of increased movement to the area 180 times per year will have a noticeable effect on local roads and public transport facilities. The combined event and matchdays is projected to happen up to 20 times per year and will cause major disruption, regardless of effective and seamless management and stewardship.

Logistics for large events work on a 24-hour basis this requires significant movement of HGVs on key routes, through adjacent residential areas. The impact on quality of life will be noticeable to residents, especially those on the opposite side of Alan Turing Way from the proposed site.

- No identification of local community impacts has been made outside the proposed expansion to the CPZ.
- Background localised traffic congestion during events/matchdays is not discussed in any depth. Models use count information, but no observational information is included for matchdays as a proxy. A significant additional uplift in traffic for 3-4 events per week across a year adds pressure to an already busy network.
- Although operational assessments are discussed in limited detail, the impacts reported from the junction modelling would result in exponential increases in highway delay, in accordance with TfL modelling guidelines and advice from JCT, the software developer.
- The additional car trips generate as much CO₂e in a year as the development is estimated to generate in its whole lifetime.
- The Manchester Zero Carbon Framework (2020-2038) DRAFT makes the statement that "*new buildings need to generate zero emissions*", and it is clear from the analysis presented that the OVG Arena would not comply with this requirement.
- Operations for concerts and events required 24-hour working. This increases noise and HGV flows during unsociable hours, affecting local communities with sensitive receptors within them.
- Proposals for amendments to highway layouts rely on temporary arrangements for events which will differ from matchday plans. This will impact safety and create issues with regular users of Alan Turing Way. Execution of temporary traffic arrangements will need to be consistently applied, including temporary changes to permanent highway signage.
- Analysis of accidents statistics do not identify any commonalities in timing or types of accidents, especially involving pedestrians. A fuller review is possible with the raw STATS 19 data provided by TfGM
- Communities such as Newton Heath, Monsall, Miles Platting, Ancoats, Gorton, Openshaw and Clayton, which lie just beyond the extent of the CPZ will take the burden of additional unmet car parking demand, which on some days will exceed 5000 cars.

Car Parking

Car parking provision on the Etihad campus is reduced by 500 spaces through the construction of the proposed arena. Despite the availability of up to 3000 spaces for arena only events, this will still mean between 2,000 and 5,500 vehicles will need to be absorbed in surrounding unofficial car parks, industrial estate and local community roads.

The reduction to 500 spaces as proposed for combined arena and matchday events will place **severe** pressure on the surrounding highway network. Not only on physical parking space availability off campus but also in the circulation of vehicles searching for said spaces. Mode splits for private vehicle use are optimistic, but even using 50% figures, the impacts will be **severe**.

The development proposals result in net loss of parking provision but an increase in vehicular demands. The only due cognisance paid to this key point in the TA is reference to the CPZ proposals, which in this instance do not materially enhance parking protections above those already put forward as part of previous applications.

- The shortfall of parking across the campus is exacerbated by the removal of 500 spaces to build the arena.
- Combined matchday and arena events reduce parking for the arena from 3000 to 500, placing significant pressure on off-site parking supply.
- No account for coach parking is made on-site and its effects on car parking availability.
- Identification of off-site parking capacity is absent. Combined events will place huge pressure on surrounding highways. CPZ proposals are no more developed than for the Etihad Stadium Expansion from 2013.
- 769 'Arena staff' will be resourced to work on a standard Arena event. Of the 769, up to 73% (559) members of staff will finish their duties after the public transport network has already stood down. This means that for up to three quarters of the workforce, the only viable option is to travel by car. (Note - Last service on PT varies dependant on day of the week).

Proposed Mitigation

The mitigation proposed is split into physical interventions in terms of infrastructure and Operation Transport Interventions.

Physical measures are limited to aesthetic improvements to the walking and cycling routes between the Etihad Campus and the city centre. A very limited widening of a pinch-point on Ashton New Road is included as a change to hard infrastructure. A cycle wheel channel is also included for access to the Ashton Canal Towpath,

The CPZ extension eastwards is necessary but should already be in place on the back of recommendations at planning application stage for the Stadium Expansion project.

Campus access and egress arrangements rely on temporary measures to the southern car park access during arena events. This has the potential to cause confusion to regular matchday attendees and drivers familiar with the route. Traffic management will need to extend to signage across the area. Egress from the site relies on a single lane, which will limit dispersal from the car park on both arena and combined arena + matchday events.

- Physical measures are limited to aesthetic improvements to the walking and cycling routes between the Etihad Campus and the city centre. A very limited widening of a pinch-point on Ashton New Road is included as a change to hard infrastructure. A cycle wheel channel is also included for access to the Ashton Canal Towpath. No consideration of footway widening to improve capacity has been considered. No solutions to issues around Pollard Street have been included.
- The CPZ extension eastwards is necessary but should already be in place on the back of recommendations at planning application stage for the Stadium Expansion project.
- Campus access and egress arrangements rely on temporary measures to the southern car park access during arena events. This has the potential to cause confusion to regular

matchday attendees and drivers familiar with the route. Traffic management will need to extend to signage across the area. Egress from the site relies on a single lane, which will limit dispersal from the car park on both arena and combined arena + matchday events.

- Bus shuttle plans to serve the required demand would require the closure of both Alan Turing Way and Ashton New Road and between 24 and 74 buses.
- Walking route to city is likely to take much of the additional burden or unmet public transport demand. This will significantly increase associated risks of ped/vehicle interaction and crime, and ultimately impact on Metrolink and highway throughput.
- Park and Ride options provide only 417 car parking spaces, which are accessed directly by public transport.

Conclusions

The summary findings identified in this review indicate clearly that the combination of a comparatively unsustainable location (by reference to a city-centre location) together with limited and ineffective mitigation measures and proposals for travel demand management will lead to **severe** impacts on both the local community, the public transport network and the wider highway network.

Of key concern are the combined event and matchdays, which are likely to occur between 10-15 times per annum, and which are inevitable given the combination of differing event types and the proximity of the two large arenas. This scenario will cause additional and unsustainable pressure on the background highway and public transport use.

The associated additional risks created in terms of safety are significant and unacceptable, with public transport and car parking deficits ultimately meaning that for many there are likely to be no logical options for travel to the venue. On combined event days this could lead to up to 20,000 spectators choosing to walk from/to the City Centre out of necessity, creating unacceptable risks in terms of pedestrian/vehicle interaction, crime and impact to other modes of transport, on which there is also heavy reliance (tram, car and bus.).

The applicant has not adequately addressed the impact of the number of cars driving to and from the site on congestion, both within the areas immediately surrounding the site and beyond. Consequently, there is also no assessment of the potentially serious impact on emergency vehicle access. Increased road congestion is inevitable due to the lack of viable alternative transport options. This will negatively impact the ability of emergency service vehicles to quickly reach both the site and surrounding areas in case of an emergency.

Mitigation proposals are minimal and unlikely to be effective in limiting the impacts on the local highway network and the wider community. Moreover, the TA makes a prior assumption that the mitigation measures will be successful without even attempting to demonstrate this, and on that basis includes adjusted mode splits at the outset of the work. This represents circular reasoning, and it would be expected that mitigation measures should be demonstrated in the TA to be effective based on identified impacts. This is a material failing in the TA.

Travel demand measures are predicated on these optimistic mode splits yet the physical limitations of the network, which are not taken into account, will mean they are unattainable. The heavy reliance on TDM and adequate staffing to implement such strategies will not adequately mitigate impacts. Differences in demographics will also mean events will vary significantly in their mode splits and origin and destination profiles.

It is concluded that delivery of an arena at this location could prejudice better, more sustainable locations for development as well as removing the ability to bring forward appropriate sustainable

development at this location. The findings of this review show that the development proposals are not in accordance with the aims and objectives of the TfGM 2040 Transport Strategy in particular the following four points.

- Reduce the need to travel by car, and the distance travelled;
- Maximise accessibility to new developments by sustainable modes;
- Maximise the best use of existing infrastructure, ensure that development close to public transport node are high density;
- Developments are designed in a way that encourages and facilitates active travel.

At present the development proposals are merely reliant on the existing transport infrastructure provision, even though it can be demonstrated to already have insufficient available capacity to meet current demands.

The application fails to meet the NPPF requirements set out in Paragraphs

108 :-

- a) appropriate opportunities to promote sustainable transport modes can be – or have been – taken up, given the type of development and its location;
- b) safe and suitable access to the site can be achieved for all users; and
- c) any significant impacts from the development on the transport network (in terms of capacity and congestion), or on highway safety, can be cost effectively mitigated to an acceptable degree.

109 Development should be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe

110. The application fails to:

- a) give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use; b) address the needs of people with disabilities and reduced mobility in relation to all modes of transport;
- c) create places that are safe, secure and attractive – which minimise the scope for conflicts between pedestrians, cyclists and vehicles, avoid unnecessary street clutter, and respond to local character and design standards;
- d) allow for the efficient delivery of goods, and access by service and emergency vehicles; and
- e) be designed to enable charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

Recommendations

The application should not be approved based on the evidence presented by OVG's consultants. The residual pressure on the highway and transport network will be severe and will cause an unacceptable impact on highway safety in the locality.

This location is fundamentally unsustainable for the use proposed. The application is not adequately supported by a robust Transport Assessment, and there are fundamental gaps in information.

The applicant has failed to assess adequately or at all those impacts and its proposed mitigation strategy will be ineffective. It therefore fails to meet the policy requirements set out in Paragraphs 108 and 109 of the NPPF.

Appendix A – Crowd Flow Modelling

OVG ARENA PLANNING APPLICATION

MSL Review of crowd modelling

11 June 2020

KEY OUTCOMES

Movement Strategies (MSL) has reviewed key documents submitted as part of the planning application for the OVG Arena and believe the assessment of crowd movement presented does not consider the full impact of the additional pedestrian demand generated by the OVG Arena on the Etihad Campus, the transport opportunities serving the site and the wider area.

The crowd modelling assessment presented does not make it possible for a reviewer (e.g. a local planning authority) to conclude that the crowd flow conditions on an OVG Arena event day can be accommodated safely and in line with visitor experience expectations at the new facility and neighbouring stadium.

In some cases this is due to an absence in evidence being provided, or outstanding questions around the basis for the assessment undertaken and conclusions drawn. In other instances, the assumptions made are considered to be questionable.

Following some high-level assessments undertaken by MSL, potential crowd risks not described or assessed by the applicant in the application have been identified. The lack of detail on management overlay provided in the application does not give sufficient assurance that measures are in place that will ensure these risks can be mitigated.

MSL has identified significant omissions and deficiencies in the applicant's assessment of crowd movement. In particular, no adequate considerations is given to the following matters:

- Justify scenarios examined and the robustness of the design by establishing the sensitivity of the results produced by adjustments to input parameter values.
- Present key elements of operational and evacuation / dispersal procedures.
- Identify where modelling assumptions rely on the implementation of operational / emergency procedures and identify modelling assumptions made. Without this it is not possible to determine the reliability and credibility of findings.
- The assumed re-routing of OVG Arena and Etihad Stadium passengers via the Canal Path may understate level of spectator demand along Joe Mercer Way (shown to be congested) and Ashton New Road. Alternate conditions should be tested.
- More peaked arrival and departure profiles should be assumed in order to test how the OVG Arena and surrounding pedestrian circulation routes will perform during peak arrival, departure and crossover periods.
- Evidence of OVG Arena evacuation performance needs to be provided, taking into account the potential for Etihad Stadium spectators also using Joe Mercer Way while evacuation is in progress.
- Joe Mercer Way may experience high levels of congestion, post-event, limiting northbound/southbound travel and/or impeding egress from the OVG Arena. Queuing at the Etihad Campus Metrolink suggests a higher proportion of spectators may look to access the City Centre by foot, with associated increase in circulation. The management of this operation should be considered in more detail as part of the assessment.
- Limited number of scenarios and limited description of methodology hinders assessment of whether routes can accommodate peak arrival/departure flows and required intervention.

KEY OUTCOMES

To address gaps in the applicant's submission, MSL conducted its own campus-wide analysis of the following three scenarios:

OVG Arena Only Event

- Joe Mercer Way accommodates the 23,500 OVG Arena spectators with some spare capacity. A 20% width reduction (i.e. to due temporary overlay and or placement of concessions) produces queues up to 2,700 spectators.
- EC Metrolink produces queues of 3,200 people (max. delay of 100mins) and 1,100 people (max. delay of 45mins), with a 12-min and 6-min service, respectively.
- The rail service at EC Metrolink may impact external overlay required (for different capacity OVG Arena events) and the number of people that choose to walk to the City Centre

OVG Arena + Etihad Stadium Weekday Evening Egress

- There is potential for high levels of congestion at Joe Mercer Way when accommodating OVG Arena and Etihad Stadium spectator demand, impeding northbound/southbound circulation and/or egress from the OVG Arena.
- This appears to be reflected in the crowd flow modelling submitted in the planning application.
- EC Metrolink produces queues of 6,800 people (max. delay of 110 mins).
- Pick up at the Rowsley Street taxi rank may experience queuing (approximately 3,000 persons) with maximum delays of 45 minutes.

OVG Arena Weekend Evening Ingress + Etihad Stadium Weekend Afternoon Egress

- No event cross over is assessed as part of the planning application submission.
- Two-way flows on Joe Mercer Way may result in it operating at 90% capacity. This does **not** consider the impact of spectators queuing outside the OVG Arena during the soft ticket check and security screening process which may further reduce the capacity of Joe Mercer Way.
- Spectators arriving and departing via Gate 1 (Alan Turing Way) may experience some localised queuing (2,200 persons) as vehicle/pedestrian conflict is managed.

The MSL analysis indicates that extensive queuing and delays are likely to occur in the scenarios examined above.

If extensive queuing persisted during the spectator arrival and/or departure period (without extensive management/mitigation by OVG Arena and/or Etihad Stadium), spectators would experience congestion levels beyond those routinely expected in these scenarios. During peak arrival/departure periods, persistent levels of congestion might increase the risk of a situation becoming unsafe as spectators are unable to freely move to a less congested location (refer to the Sports Ground Safety Authority - Guide to Safety at Sports Ground, 6th Edition, Section 10.1).

The MSL analysis indicates that the risk of these levels of congestion is greatest when the arena and the stadium are operating at the same time (e.g. as in the 'OVG Arena + Etihad Stadium Weekday Evening Egress' and 'OVG Arena Weekend Evening Ingress + Etihad Stadium Weekend Afternoon Egress' scenarios described above).

KEY OUTCOMES: OVERVIEW OF MSL ASSESSMENT

Scenario	Joe Mercer Way	Etihad Campus Metrolink	Ashton New Road	Gate 1 / Alan Turing Way	Rowsley Street Taxi rank
1 – OVG Arena weekday egress	A 20% reduction in width may result in 2,700 persons queuing	12-minute service has a queue of 3,200 persons 6-minute service has queue of 1,100 persons	Need to understand impact of increased pedestrian demand on footway width available	Some localised queuing	Some localised queuing
2 – OVG Arena weekday egress + Etihad Stadium egress	May be queues of 1,200 persons. 10% reduction in width increases queues to 2,500 persons	Queues of 6,800 persons	Need to understand impact of increased pedestrian demand on footway width available + Taxi rank operation	Some localised queuing (1,200 persons)	Queues of 3,000 persons
3 – OVG Arena weekday ingress + Etihad Stadium egress	May be operating close to capacity. Need to consider impact of OVG Arena queues pre event.	Not assessed	Need to consider competing arriving and departing spectator flows + Taxi rank operation	Some localised queuing (2,200 persons)	Not assessed

METADATA

Title	OVG Arena Planning Application - Review of crowd flow modelling
Abstract	Review of crowd flow modelling and analysis submitted in the OVG Arena planning application
Client	ASM Global
Filename	200611_OVG Arena_crowd modelling review_v2.2
Version / Status	V2.2
Author	Steve Gwynne, Alex McCarthy, Daniel Stockdale
Reviewer	Simon Owen
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INTRODUCTION

[1] Movement Strategies Limited (MSL) has undertaken a review of the planning documents accompanying planning application 126431/FO/2020 on behalf of ASM Global. This report sets out MSL's understanding of the proposed configuration and operation of the venue covered by the planning application, together with a number of items that MSL believe require further clarification. MSL has carefully considered the adequacy of the information provided within the application, and assessed the assumptions underpinning them (where available).

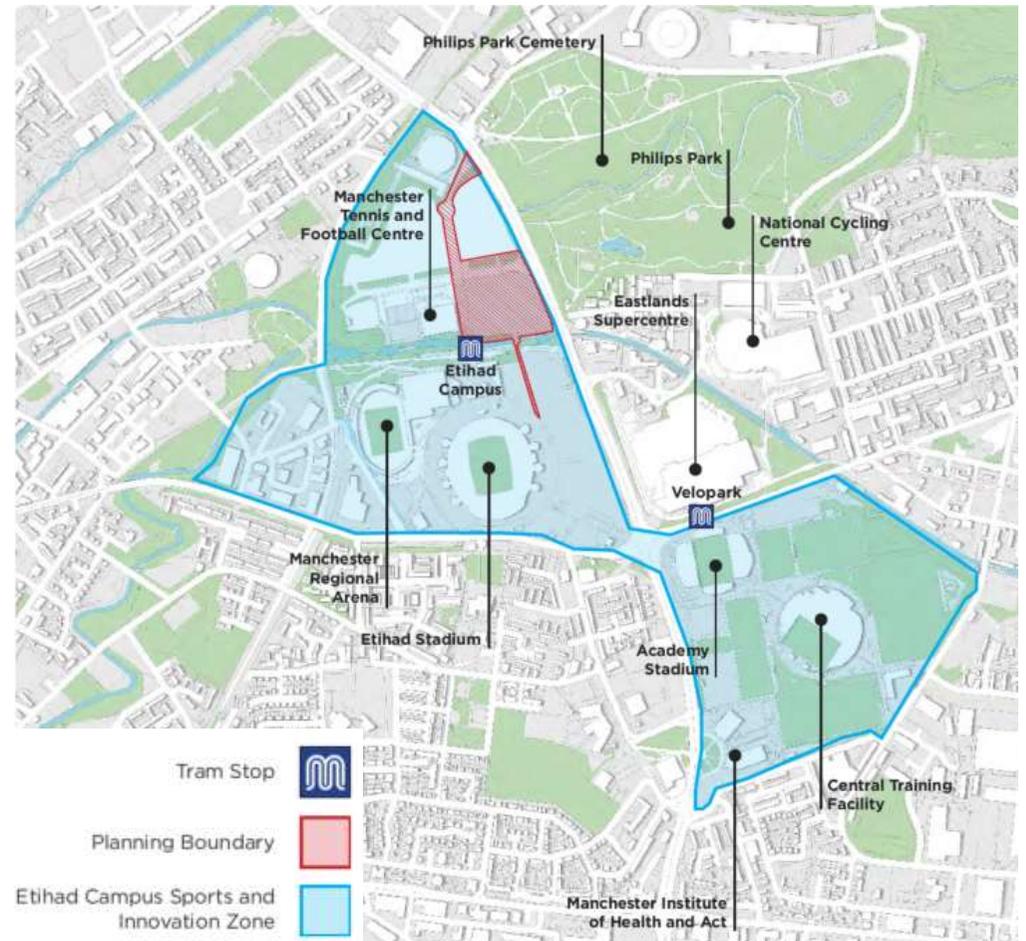
[2] MSL conducted several tasks as part of this commission:

- Reviewed the applicant's modelling methodology described in the submission documents, including aspects related to crowd safety and management
- Conducted supplementary modelling analysis where scenarios were not previously presented
- Identified actions required of the application to address in order to provide confidence in the workability of their proposal.

[3] The MSL assessment consider the following items:

- Proposed operation of the OVG Arena for the maximum capacity configuration
- Site context and proposed operation of the OVG Arena
- Spectator access to transport opportunities
- Spectator circulation within the wider pedestrian network surrounding the Etihad Campus.

[4] MSL then considers the overall application from a public safety perspective. MSL also consider practical issues, in particular where the application scheme will encourage sustainable forms of travel to and from the venue.



Site Map from [1-p16].

INTRODUCTION

SITE OPERATION:

[5] The proposed development comprises construction of a new indoor arena (OVG Arena) of up to 68,608 m² Gross External Area (GEA) with a total capacity for up to 23,500 spectators, of which 11,500 tickets would be seated tickets. Objectives include:

- [6] • The arena would be flexible to accommodate events of different nature and scale, which could include music, sport, performances, awards and other live entertainment, although the majority of events at the arena are expected to be evening concerts which can occur on either a weekday or weekend.
- [7] • The anticipated number of events at the OVG Arena is expected to grow from an initial 120 events per year (an average of 2.3 events per week) to 180 events per year (an average of 3.5 events per week). The proposed approach to event scheduling at the OVG Arena will be to avoid an event at the same time as a match at the Etihad Stadium (with planning permission for up to 61,000 spectators).
- [8] • It is estimated that 10 – 15 OVG Arena events per year will coincide with a match as Etihad Stadium, with five of these scheduled at the same time.

INTRODUCTION

[9] The planning application documents submitted only assess two campus-wide operational scenarios of the OVG Arena. The scenarios considered are documented below:

- [10] • OVG weekday evening event egress
- [11] • OVG weekday evening event and Etihad Stadium weekday evening event egress, assuming the OVG Arena discharges 20 minutes after the Stadium.

[12] The planning application assessments do not consider an Etihad Stadium weekend afternoon egress (kick off at 17:30) with an Arena evening event taking place on the same day. This is a serious omission in terms of the assessment.

[13] MSL has reviewed the analysis undertaken as part of the planning application and conducted the following additional assessments

- [14] • Static analysis of spectator circulation on external (outside the OVG Arena building line) pedestrian routes for an OVG Arena weekday evening event egress
- [15] • Static analysis of spectator circulation on external (outside the OVG Arena building line) pedestrian routes for an OVG Arena weekday evening event egress and Etihad Stadium weekday evening event egress
- [16] • Static analysis of spectator circulation on external (outside the OVG Arena building line) pedestrian routes for an OVG Arena weekend evening event arrivals and Etihad Stadium weekend afternoon event egress
- [17] • Static analysis of queues at the Etihad Campus Metrolink station
- [18] • Review of approach to crowd flow modelling presented in the planning application.



SUMMARY

The following summary identifies key findings of the MSL analysis of the OVG submission – categorized into OVG Arena Crowd Modelling and Campus Wide Crowd Flow Analysis.

SUMMARY – OVG ARENA CROWD MODELLING REVIEW

- [19] • The crowd flow scenarios examined (or at least presented) do not properly and adequately test the capacity of the pedestrian network in and around the OVG Arena – in (a) the range of scenarios examined, (b) the assumed availability of routes and (c) variation in pedestrian response within each scenario (and the subsequent sensitivity of the results to minor changes in this response). The omission of key crowd movement scenarios prevents demonstration that the pedestrian network produces expected levels of comfort and safety given the reduced scenario conditions faced. In the absence of proper and adequate testing, the Applicant does not demonstrate that safe and convenient access to and egress from the venue will be achieved. Further, it is not possible to rely on the availability and use of public transport modes of travel in the event that crowd congestion renders those modes inaccessible [6].
- [20] • Operational and emergency procedures have not yet been clearly defined and the scenarios examined by the applicant make assumptions based on management procedures that are not in place. This is a deficiency given that the site is designed to be especially attractive to a diverse audience and that emergency and operational management is a key (stated) element in ensuring their safety and experience. As a consequence, some of the modelling assumptions rely on management interventions that are not described (e.g. combined OVG Arena and Etihad Stadium egress along Joe Mercer Way) and/or pedestrian behaviours that are not substantiated (e.g. levels of spectator retention post event). Other assumptions rely on modelling conducted elsewhere but not reported as part of the planning application (e.g. the need to widen the footpath on Sportcity Way and at Gate 1).
- [21] • The description of the design performance is vague. The design is deemed to have sufficient capacity in *most locations* and allowing comfortable movement in *most locations* [1-p125]. This is insufficient. It needs to be clarified and justified. A BuroHappold crowd report is assumed to exist although is not referenced.
- [22] • No information is presented on the visitor parameters assumed in the modelling (e.g. demographics, persons with reduced mobility, walking speeds and pedestrian behaviours). It is not possible to determine if simulated populations are representative of expected populations.
- [23] • The value of insights produced through modelling relies on understanding the model used, the scenarios examined, the assumptions employed in the model and the results produced and their implications for real-world practice. Given that the material presented does not properly and fully address these points, it is not possible to establish the credibility of the approach adopted and the results produced.
- The Applicant's analysis omits crucial information required to test the methodology used as part of the analysis. It does not:
 - [24] • **Present summary of scenarios examined, a justification of their selection and the robustness of the design (by establishing sensitivity of the results produced to perturbing parameter values).**
 - [25] • **Present key elements of operational and emergency evacuation / dispersal procedures.**
 - [26] • **Identify where modelling assumptions rely on implementation of operational / emergency procedures.**
 - [27] • **Identify modelling assumptions. Without this it is not possible to determine credibility of findings.**

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW

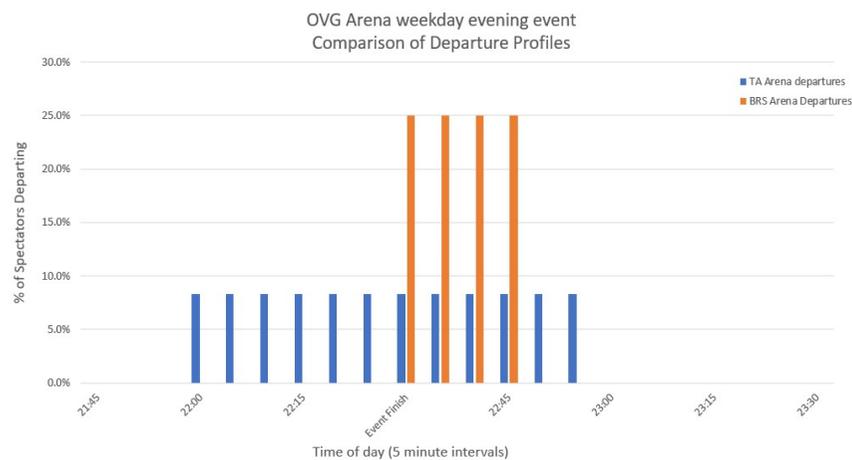
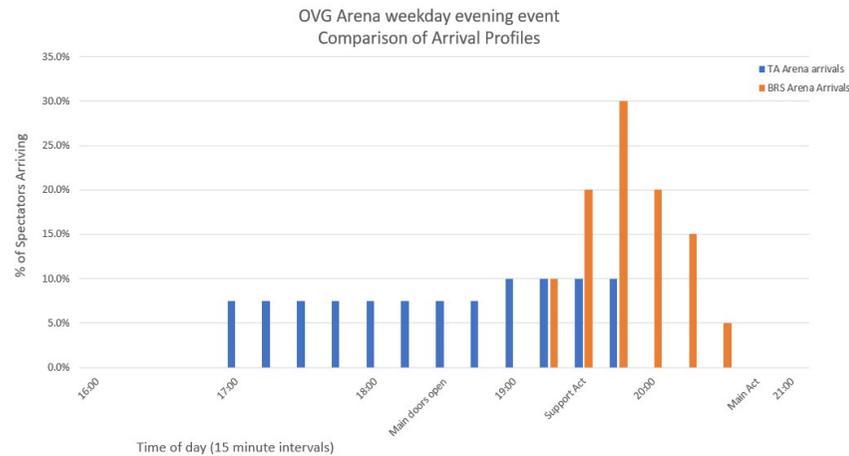
- [28] • This section summarises key issues identified by MSL which are likely to impact the ability of the site and surrounding area to accommodate
 - [29] • OVG Arena only egress,
 - [30] • OVG Arena + Etihad Stadium egress
 - [31] • OVG Arena ingress + Etihad Stadium egress

- [32] • This includes a review of the original submission (and its assumptions) and the performance of new modelling during peak arrival and departure periods.

- [33] • As part of an assessment of crowd movement, ordinarily MSL would also have reviewed:
 - [34] • Impact of security screening overlay
 - [35] • Provision of turnstile / entry-points to the OVG arena
 - [36] • Spectator circulation around the OVG building line.
 - [37] • Emergency evacuation scenarios as part of this review.

- [38] • However, the information available in the documents provided as part of the planning application did not provide enough information for these aspects to be considered, which is a material omission and denies a reviewer the opportunity to reach any independently assessed views on these important issues.

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)



- In the submission analysis, the forecast arrival profile for an OVG Arena evening event is spread over a three-hour period with 40% of demand arriving over a 1-hour period (see top left). [39]
- The Bristol Arena planning application (referenced as a relevant transport mode share in the original submission) quotes a peak of 30% of spectators arriving over a 15-minute period, in line with the Transport Assessment for the Proposed Etihad Stadium Expansion (2013) (see top left). There should have been sensitivity testing to assess the impact of a more condensed arrival period, putting additional pressure on the security screening process and external queue management. [40]
- For the purpose of the MSL assessments, it is assumed the Bristol Arena arrival profile build up to the Main Act at an arena. [41]
- The Guide to Safety at Sports Ground, 6th Edition (*Green Guide*) requires venues to provide sufficient entry points/turnstiles for spectators to enter within an hour. [42]
- The forecast departure profile for an OVG Arena evening event has 100% of spectators departing over a 1-hour period. The Bristol Arena planning application (referenced as a benchmark) quotes a post event departure period of 20 minutes (see bottom left). As above, sensitivity testing should have been carried out to assess the impact of a more condensed departure period, placing additional pressure on the circulation routes and public transport opportunities serving the site. [43]
- OVG Arena spectator demand that is assumed to walk via the canal route in the crowd flow modelling (5%) is in excess of the transport mode share forecast for all walking modes (up to 1.8%) within the planning application. This route is not currently advertised as a walking route by Manchester City Football Club on their website. The BLACC transport review indicates this route is 'lengthy and unattractive' and 'can be unpleasant and unsafe for pedestrians in the dark and during inclement weather'[6]. The report also advises no drawings have been submitted demonstrating the thought behind the proposed mitigation works along this route. [44]
- There are significant differences in the OVG Arena access point demand (of up to 20%) quoted in the submission documents, which may influence spectator queue size and delay them when accessing the OVG Arena. [45]

Arrival Profiles. TA=Profile used in Transport Assessment. BRS = Bristol Arena Profile

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)

- [46] • There is no information provided in any of the planning documents submitted on the detail of the emergency evacuation of the OVG Arena and how the proposed design and operation of the OVG Arena will accommodate a maximum capacity event safely evacuating the building. Further, it does not consider the ability of the Etihad Campus to accommodate evacuation and dispersal from either the Etihad Stadium or OVG Arena while the other is holding a maximum capacity event. Our own review suggests:
 - [47] • 65% of the OVG Arena capacity would evacuate onto Joe Mercer Way. This loading has not been assessed, especially in conjunction with spectators from the Etihad Stadium (either in the event of simultaneous evacuation, or evacuation of the OVG Arena whilst the stadium is filling or emptying). The ability of this route to accommodate these levels of demand has not been assessed.
 - [48] • Access and management of Forge Bridge Lane and Alan Turing Way has not been considered in detail.
- The Applicant's crowd movement analysis omits to address the following important matters:
 - [49] • **The** assumed re-routing of OVG Arena and Etihad Stadium spectators via the Canal Path may understate level of spectator demand along Joe Mercer Way (shown to be congested) and Ashton New Road. Alternate conditions should be tested.
 - [50] • **Peak** arrival and departure profiles should be assumed in order to test how the OVG Arena and surrounding pedestrian circulation routes will perform during peak arrival, departure and crossover periods. **Reasonable worst-case scenarios must be identified in order to ensure any level of congestion experienced by spectators is within recommended guidelines and sensitivity testing undertaken.**
 - [51] • **Evidence of the ability of the OVG Arena to evacuate safely and in a controlled way needs to be provided. The site layout requires Joe Mercer Way to accommodate a large proportion of the OVG Arena spectators. The assessment should clearly present the ability of the OVG Arena to evacuate safely and in a controlled way, taking into account that potential Etihad Stadium spectators may also be using Joe Mercer Way.**

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)

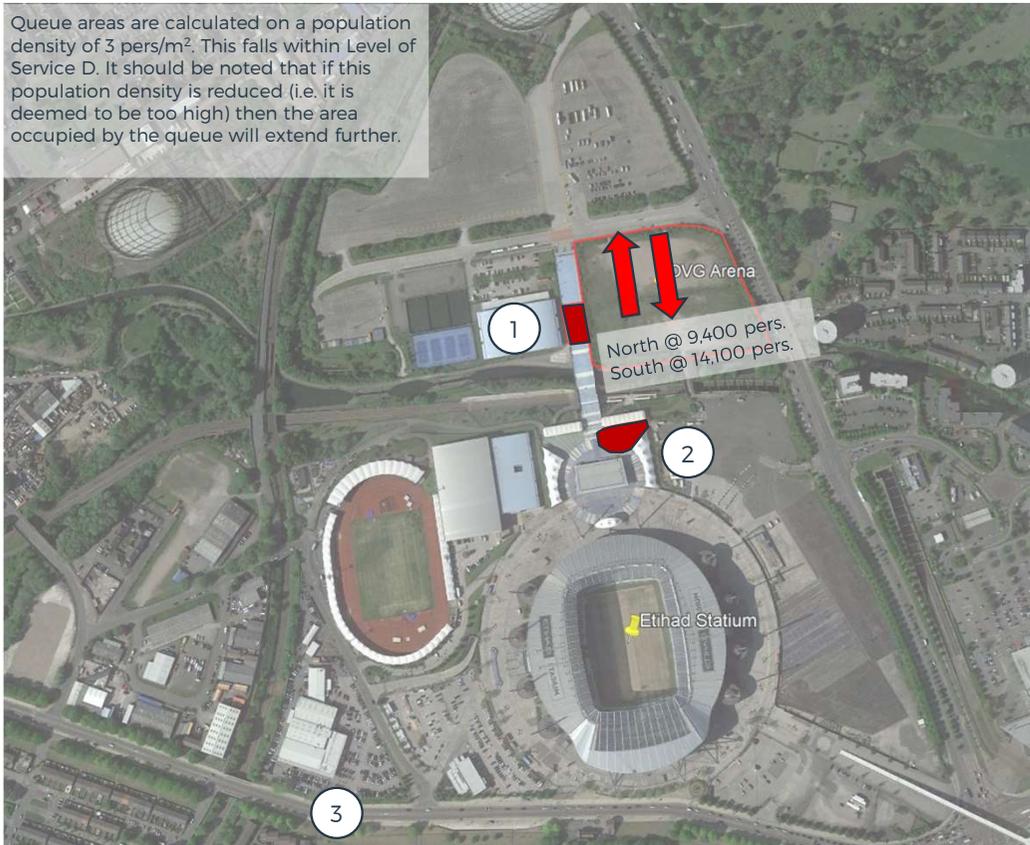
- [52] • MSL has reviewed the crowd flow modelling undertaken in order to better understand the analysis presented as part of the planning application. In addition MSL has developed static assessments for three key scenarios: 1) OVG Arena Only weekday evening event egress, 2) OVG Arena weekday evening event egress + Etihad Stadium weekday event egress, 3) OVG Arena weekend evening event ingress + Etihad Stadium weekend afternoon event egress.

- [53] • Given the levels of congestion shown on Joe Mercer Way for the OVG Arena weekday evening event + Etihad Stadium weekday event, MSL considered that an OVG Arena weekend evening event + Stadium weekend afternoon event should also be examined. In this scenario there is potential for hard spectator egress from the Etihad Stadium (i.e. spectators looking to depart the Etihad Campus over a short period of time), whilst spectators are queuing outside the west side of the Arena as they negotiate the soft ticket check and security screening process.

- [54] • For the purpose of the MSL assessment, several key assumptions used in the original application have been revised:
 - The directional distribution presented in the Design & Access Statement [1] has been used **but** no demand is assumed to use the Canal footway (described in the BLACC transport review indicates as 'lengthy and unattractive once outside the city centre' and 'can be unpleasant and unsafe for pedestrians in the dark and during inclement weather' [6]).
 - More 'peaked' arrival and departure profiles for the OVG Arena (which aligns more closely with the Bristol Arena data and is a more realistic basis for assessment) and a more 'peaked' departure profile for the Etihad Stadium have been used.

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)

Queue areas are calculated on a population density of 3 pers/m². This falls within Level of Service D. It should be noted that if this population density is reduced (i.e. it is deemed to be too high) then the area occupied by the queue will extend further.



Queuing conditions produced. Source – Google Earth

Scenario 'OVG Arena Only Egress':

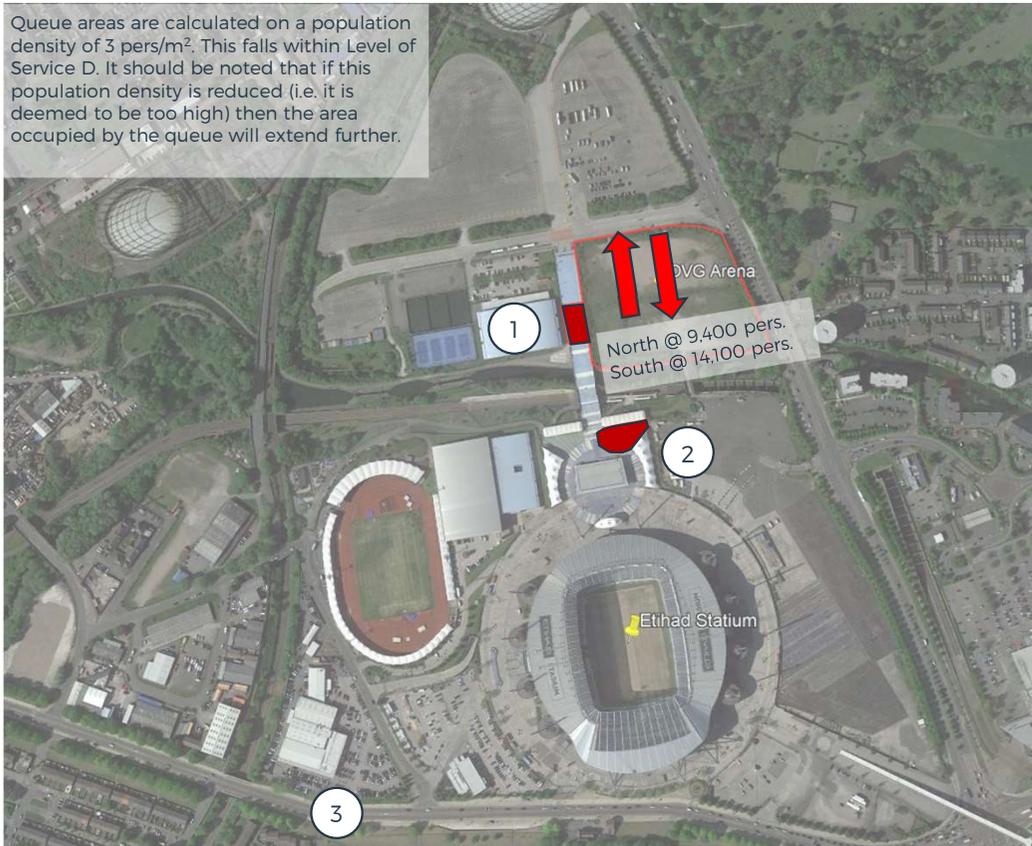
The results are sensitive to the availability and use of the full width of Joe Mercer Way. [55]

The full width of Joe Mercer Way can accommodate the 23,500 OVG Arena spectators with some spare capacity. During sensitivity analysis, it was established that a 20% width (due to the presence of overlay or concession units, for example) reduction produces queues of up to 2,700 spectators. The area required for a 2,700 person queue is shown in the adjacent figure (see left, item 1). [56]

EC Metrolink produces queues of 3,200 people and a maximum individual delay of 100 minutes, with a 12-minute service. The queue area is shown in the adjacent figure (see left, item 2). This level of queuing and delays, may result in additional spectator demand accessing Ashton New Road to walk to the City Centre (see left, item 3). [57]

EC Metrolink produces queues of 1,100 people and a maximum individual delay of 45 minutes, with a 6-minute service. An assessment of TfGM overlay and service commitments required on event day should also be assessed with 120 to 180 events potentially taking place every year. [58]

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)



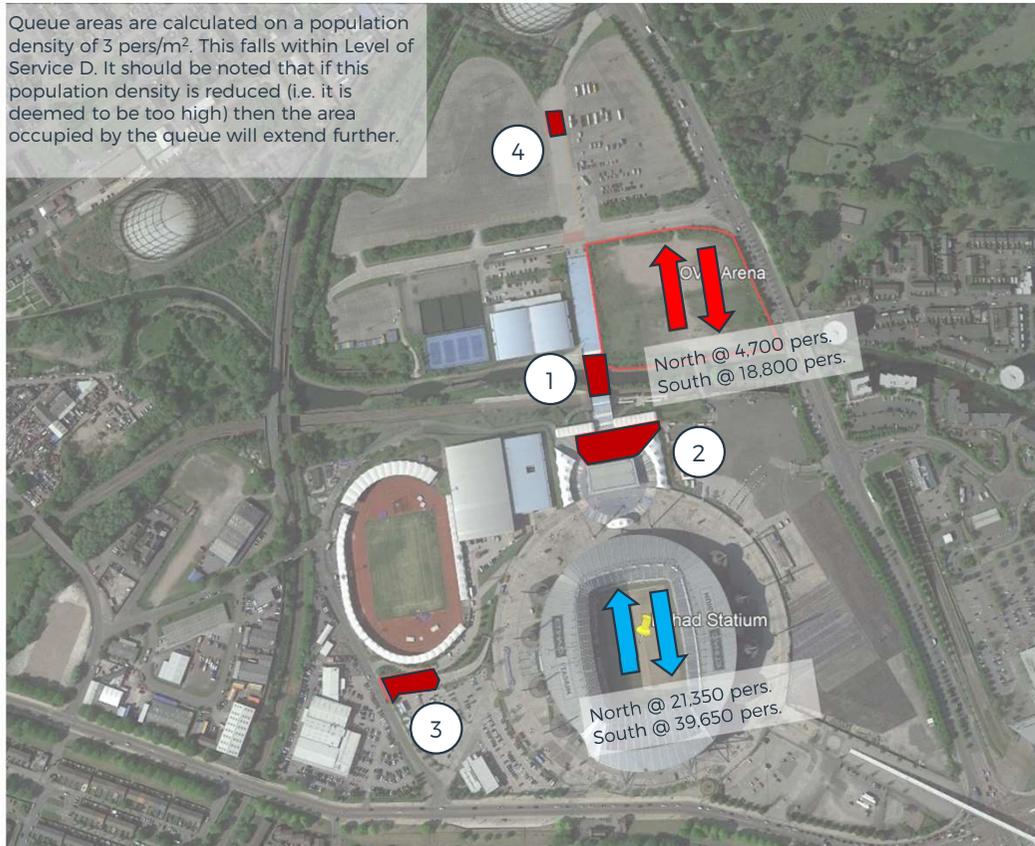
Queuing conditions produced. Source – Google Earth

Scenario 'OVG Arena Only Egress':

The level of service provided at the Etihad Campus Metrolink for an OVG Arena event is likely to directly influence the spectator demand accessing the City Centre by foot [59]

The crowd modelling assessment presented as part of the planning application does not consider the range of OVG Arena configurations and capacities or the level of queuing (and associated overlay) expected at the Etihad Campus Metrolink station. [60]

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)



Queuing conditions produced. Source – Google Earth

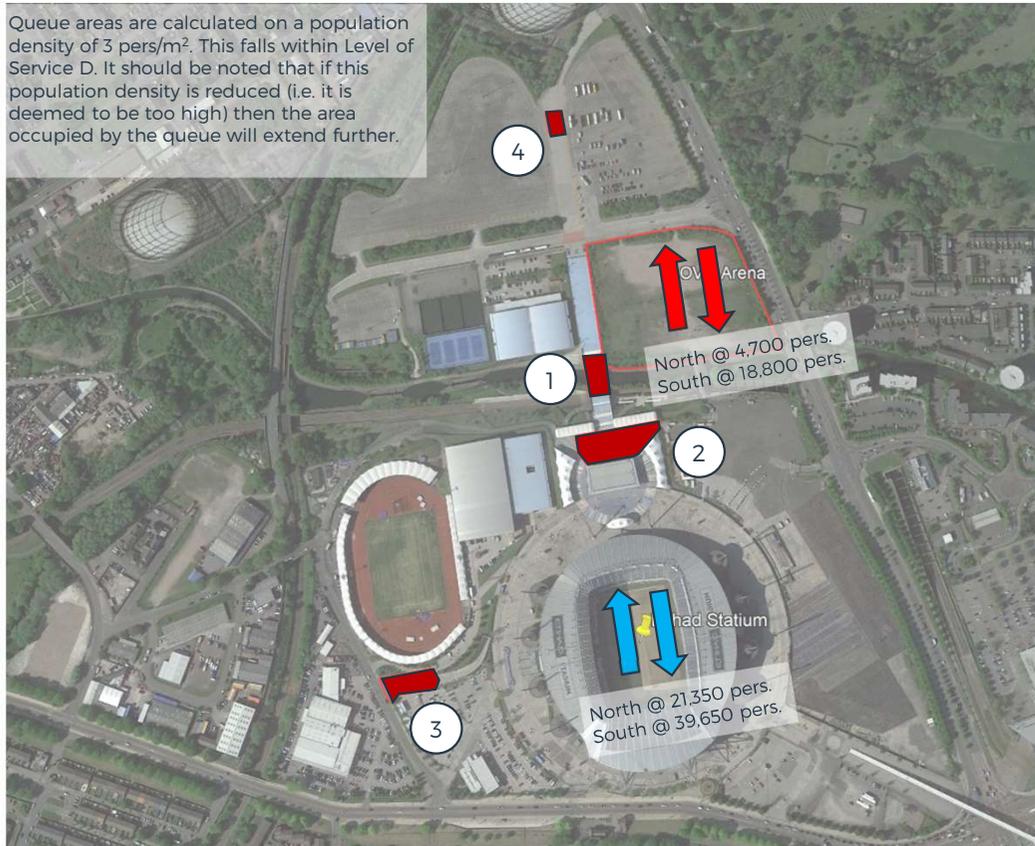
Scenario 'OVG Arena Egress + Etihad Stadium Egress (Weekday 2000 KO):

There could be queues of up to 1,200 people on Joe Mercer Way if the full route width is used. These queues increase to 2,500 people should 10% of the route width not be available for spectator circulation (i.e. due to temporary overlay or concessions). The area required for a 2,500 person queue is shown in the adjacent figure (see left, item 1). [61]

There is potential for high levels of congestion at this location, which may result in spectators not being able to circulate northbound/southbound and/or impeding egress from the OVG Arena. [62]

The Etihad Campus Metrolink will experience queues of 6,800 people (with the existing 6-minute service) with maximum individual delays of 110 minutes. This is due to the level of spectator demand travelling westbound (City Centre). The area required for a 6,800 person queue is indicatively shown in the adjacent figure (see left, item 2). The level of delays experienced might leave event attendees with no viable option but to walk to the City Centre or seek to delay their departure (or use other modes of transport). [63]

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)



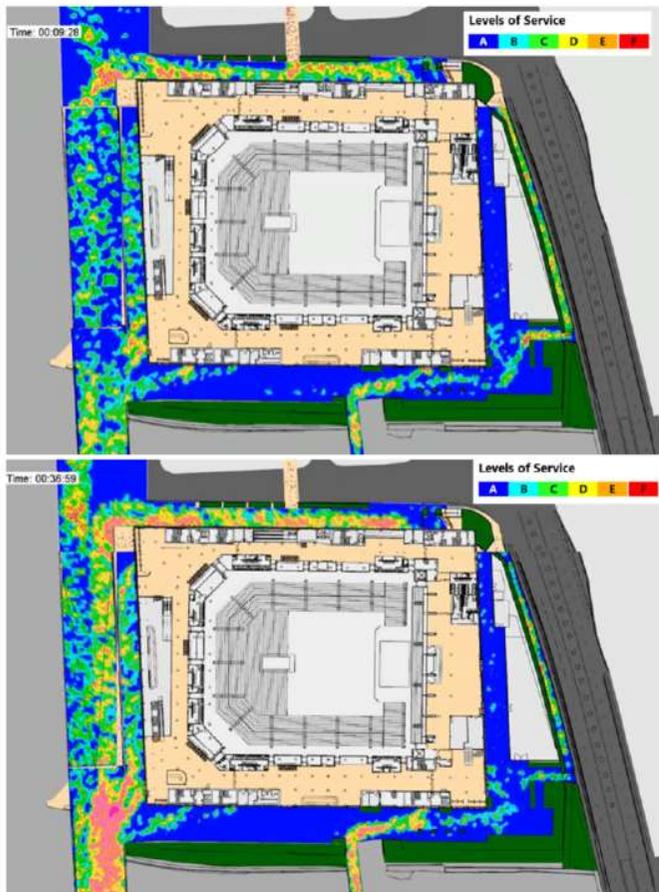
Queuing conditions produced. Source – Google Earth

Scenario 'OVG Arena Egress + Etihad Stadium Egress (Weekday 2000 KO)':

Spectators using taxis or being picked up after an event at the Rowsley Street taxi rank may experience queuing (approximately 3,000 persons) with maximum individual delays of 45 minutes. The area required for a 3,000 person queue is shown in the adjacent figure (see left, item 3). [64]

There may be some localised queuing at Gate 1 after an event (1,200 persons) as vehicle / pedestrian conflict is managed. The area required for a 1,200 person queue is shown in the adjacent figure (see left, item 4). [65]

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)



Results of crowd modelling [1].

Scenario 'OVG Arena Egress + Etihad Stadium Egress (Weekday 2000 KO)':

The congestion on Joe Mercer Way is reflected in the OVG Arena crowd modelling presented in the Design & Access Statement [1] (see left), but the information provided does not show the impact further south on Joe Mercer Way or advise if significant management may be necessary to address resultant safety risks.

Conclusions:

- Joe Mercer Way may experience high levels of congestion post-event, resulting in the inability of spectators to travel northbound/southbound and/or impeding spectator egress from the OVG Arena – discouraging the use of non-car modes of transport. The impact of this needs to be assessed.
- The level of queuing at the Etihad Campus Metrolink station suggests many spectators will have no option but to access the City Centre by foot (or use other modes of transport), with an associated increase in circulation and footway width required. The physical condition of these footways and suitability for more extensive use is not commented on within the planning application.

SUMMARY – CAMPUS-WIDE CROWD FLOW REVIEW (CONT.)

Scenario 'OVG Arena Ingress + Etihad Stadium Egress (Weekend 1730 KO)':

- Joe Mercer Way may be operating at 90% capacity during an Etihad Stadium egress and OVG Arena ingress. The assessment undertaken by MSL does **not** consider the impact of spectators queuing outside the OVG Arena during the soft ticket check and security screening process. With the Event Management Plan identifying 'queues likely outside the majority of the area entrances' (during the OVG Arena ingress period and Etihad Stadium egress period), the crowd modelling should determine if there is sufficient space to accommodate forecast OVG Arena queues and spectators travelling northbound and southbound on Joe Mercer Way.
- An assessment of the forecast spectator arrivals (to the OVG Arena) and departures (from Etihad Stadium) indicate that maximum queues of 2,200 persons may be expected at Gate 1 (Alan Turing Way), when considering the stop/go operation for vehicles and pedestrians proposed by the applicant (assuming 2 minutes for pedestrians and 3 minutes for vehicles per cycle).

Conclusion:

- **The management of this operation should be considered in more detail as part of the assessment. There is no analysis of the effects, no sensitivity testing on how long people may remain in queues and what the impact will be on the use of public transport**, which are significant omissions to the crowd movement assessment.

Although the Event Management Plan highlights the need for crowd modelling (EMP, p16), only two of the event mode scenarios have been assessed in this way. Key scenarios that have been omitted and should be included in the further crowd modelling analysis include Emergency Evacuation and MCFC Evening Concert + OVG Arena Evening Concert and sensitivity scenarios. There is an urgent need for these scenarios to be assessed.

Conclusion:

- **The limited number of scenarios assessed, and lack of detail provided on the methodology of the assessment, do not clearly establish whether circulation routes can accommodate peak arrival/departure flows or what level of operational intervention will be required on each OVG Arena event day.** The evidence presented does not make it possible to conclude that the crowd flow conditions on event day can be accommodated safely and in line with visitor experience expectations at the new facility and neighbouring stadium.

DOCUMENTS REFERENCED

- [1] OVG Design and Access Statement, 14/2/2020, POPULUS.
- [2] OVG Manchester Operating Schedule and Event Management Plan.
- [3] OVG Manchester, Environmental Statement – Non Technical Summary ,Deloitte Real Estate, March 2020.
- [4] OVG Manchester Limited Planning Statement, ,Deloitte Real Estate, March 2020.
- [5] OVG Manchester: Appendix 12.1 – Transport Assessment and Transport Assessment Addendum, Buro Happold, Revision 6, March 2020.
- [6] BLACC Eastlands Arena Transport Assessment Review, June 2020.



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RESOURCE DOCUMENT A: MSL REVIEW OF OVG ARENA CROWD MODELLING

The following material relates to the MSL review of the OVG Arena crowd modelling and associated content.

- Text in blue represent direction quotations from the original submission.
- Text in bold represent key findings.

This material is the resource from which the key points have been derived and presented in the summary. Referenced material is cited and listed at the back of this document.

REVIEW - GENERAL CROWD ISSUES

- [75] • 'High encouragement to use a more sustainable mode of transport.' [1-p112] In [2-p27] it states a 12-15% drop in vehicle use is possible. It is assumed this is through the provision of information and reduction in available parking [2-p7].
 - [76] • What happens if encouragement does not always work – especially where the OVG and the stadium are in use?
 - [77] • Might the changing parking spaces not confuse visitors who are not aware of the Etihad events?
- [78] • Is all footing of equivalent condition across the paths to be used [1 – p79, 2-p27]?
 - [79] • If not, are the differences reflected in the modelling employed?
 - [80] • Could someone with a movement impairment use the canal path; i.e. be part of the 5% using this route [1-p124]?
- [81] • How are the crowd flows highlighted on [1-p80] to be achieved?
 - What measures are required? Operational procedures are not currently in place.
- [82] • 'The evacuation strategy will incorporate the use of evacuation lifts.' [1-p117]
 - [83] • Are lifts represented in the assessment presented in [1-p122-3] or the crowd flow modelling shared in [1-p125]. If not, then how are those using wheelchairs able to get to their target locations as part of this movement?
- 'OVG will set out its strategy for this within an Operations Manual.' [2-p5] and 'The method of how the arena will be operated will be detailed within an Operations Manual' [2-p10]
 - [84] • **It is important to identify the key elements of this operational management where (a) they are fundamental to the design, and (b) where they are assumed in the crowd modelling.** [85]
 - [86] • It is not possible to assess the suitability and feasibility of the design without a procedural framework, especially given the stated reliance on operational / emergency procedures (e.g. [2-p16]).
- 'Spectators are likely to slow down and/or spill over on to the cycle path of Alan Turing Way due to the width constraint along this path.' [1-p125]
 - [87] • How does this affect the passage of cyclists and the safety of pedestrians? [88]
- Did the crowd assessment consider security access measures? [89]
- 'The overriding approach will be to not schedule an arena event at the same time as a match. However, if that can't be avoided, it is only likely to occur a handful of times a year.' [2-p6]
 - [90] • In any event, this reduces the probably of significant loading occurring, but not the consequences of this loading should it occur. [91]
 - [92] • The rescheduling of high-profile fixtures (e.g. Premier League games) seems challenging and would be highly improbable at short-notice. It would involve significant third-party engagement.

REVIEW - GENERAL CROWD ISSUES (CONT.)

- [93] • 'New emergency vehicle access from Alan Turing Way including localised modifications to existing pedestrian footway and access to the canal, to allow emergency vehicle to cross the footway and cycleway in the event of an emergency.' [5-p67]
- [94] • How does this perform in conjunction with expected visitor use of Alan Turing Way?
- [95] • The need for a standalone or campus-wide evacuation is discussed [2-p19].
- [96] • **No details are given of how this might be managed and no consequence analysis conducted. The evacuation / dispersal scenario poses a particular challenge given the demographics of the crowds that might be present.**
- [97] • **Has the evacuation plan been simulated, but not reported?**
- [98] • A range of different events might be held at the OVG – UFC, Disney, etc. In addition, rival football crowds might be present at an Etihad game. As noted [4-p57]: 'It is recognised that different types of event attract different spectator demographics and each event has the potential to affect the local community in different ways.'
- [99] • **Is there any consideration for segregation or crowd management of the sub-populations at the Etihad and the OVG in order to manage security challenges?**
- 'A fire engineered assessment has been performed to demonstrate safe escape within the building.' [1-p123]
- What procedure was assumed during this assessment? [101]
- What resources are required to complete this procedure? [102]
- What behavioural response is required of the visitors to the use of procedure? Is this response credible – especially given the present of visitors with movement impairments? [103]

REVIEW - SCENARIO ASSUMPTIONS

- [104] • In [1-p118-21], precise pedestrian splits are employed – based (it is assumed) on the capacity of the exits/routes used. This is reasonable when testing the feasibility of the design rather than the performance. However, in the crowd flow modelling, fixed splits are also used [1-p124-5].
 - [105] • What are the population catchment areas for these splits?
 - [106] • **How sensitive is the clearance time of eight minutes to the assumed split?** This is key as, in reality, these splits cannot be guaranteed.
 - [107] • **Has there been any sensitivity analysis of the assumed split?** For instance, varying the precise % using each route.
- [108] • **The robustness of the design should be demonstrated by performing (and sharing) the results of a sensitivity analysis.**
- [109] • 'It is assumed that simultaneous egress from both the stadium and OVG Manchester will be a rare occurrence, the operational management plan developed by the client should consider this rare scenario and have a strategy to manage flows.' [1-p124]
 - [110] • This reduces probability of an incident occurring but does not preclude it.
- [111] • **Therefore, the stated operational management plan should be documented (even if in draft form) seeing as this represents a recognized issue at this stage.**
- The timeline diagrams in [1-p124] imply that
 - [112] • People dwell in the marketplace on arrival [113]
 - [114] • People use the food court and concessions on departure. [114]
 - [115] • Also see [5-p13] that notes the need for staggered access and egress to ensure the quality of offer. [115]
 - [116] • This poses several questions: Were these assumptions represented in the simulation? How sensitive were the results to these assumptions? [116]
 - [117] • No evidence is provided regarding the probability, the proportion of the population involved in the dwell or the extent of these delays. Perhaps more importantly, no information is provided on how reliant the results are to this dwell time. [117]
- The potential of such dwell behaviour, and the potential complexity that it introduces, should be accounted for in at least some modelling scenarios. [118]
- However, such services should not be relied upon to distribute departure profiles of large portions of the population over a longer time in all instances. This becomes especially problematic where this departure distribution is safety critical and where the impacts are unknown or unreported. [119]
- **A clear description of the spectator behaviour represented in the simulation model should be provided, along with a justification of this behaviour.** [120]

REVIEW - SCENARIO ASSUMPTIONS (CONT.)

- [121] • 'OVG Manchester would discharge 20 minutes after the final match whistle at the Etihad Stadium.' [1-p124]
- [122] • This cannot be ensured and cannot be an assumed condition. What happens if there is an incident at the Etihad that affects this time beyond expectation (e.g. floodlight failure, and extended injury, etc.) or an external factor (weather, transport issue, etc.)? How does this affect movement? [2-p8]
- [123] • Can the OVG adapt to unplanned events at the Etihad that challenge this 20minute gap?
- [124] • What sensitivity testing has been undertaken?
- [125] • 'Slower flow rates than suggested in the Green Guide have been used [sic] provide a [sic] worst case scenario.' [2-p17]
- [126] • What rates were used?
- [127] • What is the justification for the selected value(s)?
- [128] • How significant were the queues produced?
- [129] • Use of the term 'worst-case' is not appropriate as it may underestimate downstream loading/arrival rates.
- [130] • 'The arrival and departure profiles for matinee and evening events at the proposed arena have been derived based on operational information provided by the Applicant and crowd flow analysis by the design team.' [5-p72]
- [131] • **No assessment can be made regarding this as the analysis is not provided.**
- 'The crowd analysis also shows that a wider footway is required on the southern half of Sportcity Way to accommodate pedestrian egress after an arena event.' [5-p65]
- [132] • **It is assumed that modelling has been conducted to test the impact of this footway widening. However, it is not shared and so no comment can be made regarding the necessity or sufficiency of this change.** [133]
- Distance calculations assume a walking speed of 1.33 m/s. This represents able-bodied individuals moving at low densities. [134]
- The OVG is cleared in eight minutes [1-p124]. It is not clear by what margin it meets the eight-minute benchmark (identified in the Green Guide v6). If the clearance time is at or near to eight minutes, it puts extra emphasis on the performance of conduct a sensitivity analysis regarding key parameters (e.g. route split). [135]
- **What is the precise time to clear OVG?** [136]
- Does this eight minutes include the movement of those with movement impairments? [137]
- **Perform a sensitivity analysis of key design parameters and report this.** [138]
- It should also be noted that this eight-minute threshold is dependent on a fire risk assessment of the routes and structure. The performance of this assessment and the 'low risk' outcome should be confirmed. [139]

REVIEW – OVG ARENA CROWD MODELLING

- [140] • 'Are the 61,000 spectators from the Etihad stadium also simulated [1-p124]? It is assumed that they are, although it should be confirmed. [149]
- [141] • If so, does the OVG population interact with them and where? [150]
- [142] • Why were these two stadium configurations selected (Centre Stage Standing / Seated) and the other 10 omitted [1-p124,4-p35]? [151]
- [143] • Are these assumed to be representative and the conditions produced sufficient to gain insights in visitor movement across the 12 designs? [152]
- [144] • For the reader to determine that the modelling in [1-124-5] follows best practice, the underlying assumptions should be clearly stated. This should address: [153]
- [145] • The model used. [1-p124-5]
- [146] • The population demographics represented. This is particularly important given the numerous references to inclusivity and the dignity of all attendees [2-p14, 3-p9]. [154]
- [147] • Assumed travel speeds, delays and flow rates employed.
- [148] • The way visitor movement and operational procedures are represented.
- 'The crowd flow studies indicates...Sufficient capacity...with occasional high density.' [1-p125] [149]
- What constitutes high density? Does it go beyond Green Guide recommendation (e.g. 4p/m² for 'short periods')? [150]
- How often does 'high-density' occur? [151]
- How long does the occurrence last? [152]
- Two simulation images are shown on [1-p125]. It is not clear [151]
- Whether these are representative conditions or extreme conditions [152]
- It is assumed that they are a snapshot of the conditions present, rather than representing the cumulative conditions. This means it is not possible to establish how the conditions evolved over time. [153]
- It is apparent that the 'severe' conditions shown fall approximately seven minutes after the peak - again suggesting that there may be more significant congestion levels not reported. However, it is apparent that LoS E and F is apparent in significant areas in the SW corner of the OVG. [154]
- **More information should be provided on the location, scale, severity and longevity of congestion .** [155]

REVIEW – OVG ARENA CROWD MODELLING (CONT.)

- [156] • It states ‘the design provides sufficient capacity at most locations’ [1-p125] (see [2-p16]).
- [157] • In addition, it states ‘BuroHappold’s analysis shows that with effective operational management and clear signage to direct spectators the public realm provides sufficient capacity for a safe and comfortable spectator movement at most locations.’[1-p125]
 - [158] • Where and when is there insufficient capacity and what are the consequences of this insufficiency?
 - [159] • It is assumed that a full report exists elsewhere as the material presented does not address this at all (see [4-p38]).
 - [160] • **Areas of concern should be reported, and the impact of the operational management should be quantified as indicated.**

DOCUMENTS REFERENCED

- [1] OVG Design and Access Statement, 14/2/2020, POPULUS.
- [2] OVG Manchester Operating Schedule and Event Management Plan.
- [3] OVG Manchester, Environmental Statement – Non Technical Summary ,Deloitte Real Estate, March 2020.
- [4] OVG Manchester Limited Planning Statement, ,Deloitte Real Estate, March 2020.
- [5] OVG Manchester: Appendix 12.1 – Transport Assessment and Transport Assessment Addendum, Buro Happold, Revision 6, March 2020.



RESOURCE DOCUMENT B: MSL REVIEW OF HIGH-LEVEL CROWD FLOW

The following material relates to the MSL review of the campus high-level crowd modelling.
This material is the resource from which the key points have been derived and presented in the summary.

Resource Document B: OVG Arena Planning Application

Planning application 126431/FO/2020 Erection of a multi-use arena (Use Class D2) (61,082 sqm) with a partially illuminated external façade together with ancillary retail/commercial (Classes A1, A3 and A4), with highways, access, servicing, landscaping, public realm and other associated works

Review of crowd movement on event days

Introduction

1. Movement Strategies Limited (MSL) has undertaken a review of the planning documents accompanying planning application 126431/FO/2020 on behalf of ASM Global. This note sets out our understanding the planned operation, together with a number of items that we believe require further clarification, including:
 - Proposed operation of the Arena in for a maximum capacity event
 - Spectator circulation within the Etihad Campus
 - Spectator access to transport opportunities
 - Spectator circulation within the wider pedestrian network surrounding the Etihad Campus
2. This note is intended as resource material to support the accompanying summary document.
3. As part of this exercise, Movement Strategies has reviewed the following documents accompanying the planning application:
 - OVG Manchester: Appendix 12.1 – Transport Assessment and Transport Assessment Addendum, Buro Happold, Revision 6, March 2020. This document is cited as (TA) throughout.
 - OVG Manchester Operating Schedule and Event Management Plan. This document is cited as (EMP) throughout.
 - OVG Design and Access Statement, 14/2/2020, POPULUS. This document is cited as (DAS) throughout.
4. This document is structured as follows:
 - Executive Summary
 - Proposed development and event scheduling
 - Review of OVG Arena spectator travel to and from the Etihad Campus
 - Crowd modelling assumptions in the Planning Application
 - Campus-Wide Crowd Modelling Analysis undertaken by MSL
 - Scenario 1 – Arena Only weekday evening event egress
 - Scenario 2 – Arena weekday evening event egress + Stadium weekday evening event egress
 - Scenario 3 – Arena weekend evening event ingress + Stadium weekend afternoon event egress
 - OVG Arena Operation Modes not considered

Executive Summary

- Movement Strategies Limited (MSL) has undertaken a review of the crowd movement assessment planning documents accompanying planning application 126431/FO/2020 on behalf of ASM Global.
- The proposed development comprises construction of a new indoor arena of up to 68,608 m² Gross External Area (GEA) with a total capacity for up to 23,500 spectators, of which 11,500 tickets would be seated tickets (*TA, p61*).
- The arena would be flexible to accommodate events of different nature and scale although the majority of events at the arena are expected to be evening concerts which can occur on either a weekday or weekend (*TA, p71*). On average, there will be an anticipated 2.3 to 3.5 events per week.
- There are significant differences in the level of spectator demand assumed to use the OVG Arena access points available. **It is unclear in the crowd flow modelling presented what assumptions have been used to determine the sizing of turnstiles/entry point and security screening overlay required.** Potential delays to spectators accessing the OVG Arena will directly influence the level of queuing to be expected in the public realm pre-event.
- The crowd flow modelling provides limited information on the performance of the OVG Arena's internal concourses during an interval period. The Event Management Plan states that the concession and toilet provisions at most locations are sufficient to cater the demand for the interval duration considered (*EMP, p16*). **There is no advice on what interval duration has been considered and/or the target levels of service designed to.**
- **There is limited information provided in any of the planning application documents on the detail of the emergency evacuation of the OVG Arena and how the proposed design and operation will accommodate a maximum capacity event simultaneously evacuating.**
- The planning application identifies a requirement to close Sportcity Way to traffic at the junction with Joe Mercer Way before and after an OVG Arena event, in addition to widening the footway on the southern half of Sportcity Way to accommodate pedestrian egress after an Arena event (*TA, p64*). Its local impact is not demonstrated (although might be assumed to be positive); however, its broader implications on vehicle and pedestrian movement is unclear.
- The Design & Access Statement presents some detail on where OVG Arena spectators are assumed to arrive and depart the OVG Arena building line. The distribution of venue entry points varies in the document, and the figures provided for egress do not account for the full OVG Arena population. For the purpose of MSL's assessment of spectator demand vs infrastructure capacity available, it is assumed that all northbound and southbound demand for the OVG Arena will circulate along Joe Mercer Way.
- The Transport Assessment presents some detail on the forecast spectator transport mode share for the OVG Arena. In instances where no detail on spectator routing is presented in the Design & Access Statement, transport mode share figures have been used to estimate direction of spectator travel.

- An assessment of OVG Arena spectators departing after an OVG Arena Only event indicates northbound spectators will require 5.7m and southbound spectators will require 8.5m of the 20m width available on Joe Mercer Way. Considering the combined two-way flow (northbound and southbound) of OVG Arena spectators, **Joe Mercer Way would be operating at 90% capacity after an event at the OVG Arena.**
- An assessment of OVG Arena spectators travelling south after an OVG Arena Only event indicates spectators will require 3.5m circulation width to ensure free flowing conditions. It should be noted that this assessment does not consider additional spectator demand which may choose not to use the Etihad Campus Metrolink station should TfGM provide a 12-minute frequency westbound rail service towards the City Centre.
- **Assuming TfGM were to provide a 12-minute service at Etihad Campus Metrolink station after an OVG Arena Only event, queues of 3,200 persons can be expected with maximum individual delays of 100 minutes. If TfGM were to provide a 6-minute service, queues of 1,100 persons can be expected with maximum individual delays of 45 minutes.**
- An assessment of OVG Arena and Etihad Stadium spectators egressing along **Joe Mercer Way** indicates approximately 20,000 pedestrians travelling northbound and 19,000 pedestrians travelling southbound during the combined egress period. **This level of demand results in maximum spectator queues of 1,200 persons at this location (i.e. the route may be over capacity).**
- An assessment of OVG Arena and Etihad Stadium spectators travelling south west towards Ashton New Road after an event indicates they will require 19m circulation width to ensure free flowing conditions. It should be noted that this assessment does not consider additional OVG Arena spectator demand which may choose not to use the Etihad Campus Metrolink station should spectators find the maximum delays at the Etihad Campus Metrolink station unacceptable (and decide to walk to the City Centre).
- **An assessment of OVG Arena and Etihad Stadium spectators travelling westbound on the Etihad Campus Metrolink services after an event indicates that if TfGM were to maintain the 6-minute westbound rail service, queues of 6,800 persons can be expected with maximum individual delays of 110 minutes.**
- **An assessment of OVG Arena and Etihad Stadium spectators travelling north via Gate 1 after an event indicates there may be some queuing (1,200 persons) as vehicle / pedestrian conflict is managed.**
- **An assessment of OVG Arena and Etihad Stadium spectators using taxis or being picked up after an event at the Rowsley Street taxi rank indicates there may be queuing (approximately 3,000 persons) at this location with maximum individual delays of 45 minutes.** It should be noted that this assessment does not consider how private vehicle and Uber pre-booking will be managed to direct spectators to pre-booked vehicles and/or how the vehicle will negotiate road closures and pedestrian demand on Ashton New Road.
- No crowd flow modelling assessment of an OVG Arena spectator arrival and Etihad Stadium spectator departure is presented in the documents submitted as part of the planning application. Given the

likelihood of OVG Arena and Etihad Stadium event overlapping, a campus-wide assessment of spectator circulation has been undertaken by MSL

- An assessment of OVG Arena spectator arriving and Etihad Stadium spectators departing along Joe Mercer Way indicates approximately 35,000 pedestrians travelling northbound and 5,000 pedestrians travelling southbound during the combined ingress and egress period. This level of demand results Joe Mercer Way operating at 90% capacity without considering impact of OVG Arena spectators queuing at the soft ticket check and security screening process.
- An assessment of OVG Arena spectators arriving and Etihad Stadium spectators departing via the south west to/from Ashton New Road indicates spectators will require 26m circulation width to ensure free flowing conditions. The impact of arrival and departures overlapping should be considered by the applicant.
- **An assessment of OVG Arena spectators arriving and Etihad Stadium spectators departing via Gate 1 indicates there may be some queuing (2,200 persons) as vehicle / pedestrian conflict is managed.**
- Whilst the Event Management Plan highlights that crowd modelling 'is more important than usual given the location of the arena, within the Etihad Campus, and in proximity to the stadium' (*EMP, p16*), only two of the event mode scenarios have been assessed as part of the crowd modelling presented in the Design & Access Statement.
- **There is no emergency evacuation scenario presented in the documents submitted as part of the planning application.** This is a key scenario, required in the guidance documents referenced by the Event Management Plan.
- The issues set out in this document show that the assessment of crowd movement undertaken as part of planning application 126431/FO/2020 have not considered in full the impact of the additional pedestrian demand generated by the OVG Arena on the Etihad Campus, the transport opportunities serving the site and the wider area

Scenario	Joe Mercer Way	Etihad Campus Metrolink	Ashton New Road	Gate 1 / Alan Turing Way	Rowsley Street Taxi rank
1 – OVG Arena weekday egress	A 20% reduction in width may result in 2,700 persons queuing	12-minute service has queue of 3,200 persons 6-minute service has queue of 1,100 persons	Need to understand impact of increased pedestrian demand on footway width available	Some localised queuing	Some localised queuing
2 – OVG Arena weekday egress + Etihad Stadium egress	May be queues of 1,200 persons. 10% reduction in width increases queues to 2,500 persons	Queues of 6,800 persons	Need to understand impact of increased pedestrian demand on footway width available + Taxi rank operation	Some localised queuing (1,200 persons)	Queues of 3,000 persons
3 – OVG Arena weekday ingress + Etihad Stadium egress	May be operating close to capacity. Need to consider impact of OVG Arena queues pre event.	Not assessed	Need to consider competing arriving and departing spectator flows + Taxi rank operation	Some localised queuing (2,200 persons)	Not assessed

Proposed development and event scheduling

5. This chapter sets out MSL's understanding of the OVG development proposals, as set out in the planning application documentation.

Type of development

6. The proposed development comprises construction of a new indoor arena of up to 68,608 m² Gross External Area (GEA) with a total capacity for up to 23,500 spectators, of which 11,500 tickets would be seated tickets (TA, p61).
7. The development will also accommodate food and beverage units and retail units (TA, p16) over 17,451 m² (DAS, Appendix A, p142).

OVG Arena event scheduling

8. The arena would be flexible to accommodate events of different nature and scale, which could include music, sport, performances, awards and other live entertainment. Events could be held during the day and evening, throughout the year, (TA, p16) although **the majority of events at the arena are expected to be evening concerts which can occur on either a weekday or weekend** (TA, p71).
9. The 'standard attendance' for the Arena is quoted as 14,000 – 18,000 persons (EMP, p10), with the anticipated number of events expected to grow from an initial 120 events per year (**an average of 2.3 events per week**) to 180 events per year (**an average of 3.5 events per week**).
10. A review of the capacity ranges (venue configuration and tickets available) indicates that the number of events with a potential capacity in excess of 20,400 tickets is expected to grow from an initial 50 events per year (average of 0.9 events per week) to 76 events per year (average of 1.4 events per events per week) (EMP, p10).
11. The proposed approach to event scheduling at the Arena will be to try and avoid an event at the same time as a match (EMP, p6). It is estimated that 10 – 15 Arena events per year will coincide with matched as Etihad Stadium (TA, p61), with 'a handful' of these scheduled at the same time (EMP, p6).

Review of OVG Arena spectator travel to and from the Etihad Campus

12. This chapter sets out MSL’s understanding of how the spectators are assumed to arrive and depart the Etihad Campus (in order to access the OVG Arena) within the planning application. As part of this review, any inconsistencies in the assumption within different documents are addressed.

Arena Event Day Mode Share

13. The forecast spectators event day mode share will inform the spectator circulation patterns within the Etihad Campus, the surrounding pedestrian network and the transport opportunities serving the site.
14. The Transport Assessment presents a forecast mode share for weekday events and weekend events at the arena (see Table 1), based on travel surveys obtained for match days at the Etihad Stadium (TA, Appendix H, p125).

Table 1: Model Share (TA, p75).

Mode	Weekday Baseline	Weekend Baseline
Car	57.4%	54.9%
Drop off	2.0%	3.1%
Motorbike	0.1%	0.0%
Bicycle	0.1%	0.1%
Walk	1.4%	0.8%
Taxi	4.9%	1.1%
Train (Walk)	5.1%	7.6%
Train (Other)	7.0%	8.7%
Bus	3.2%	3.5%
Metrolink	13.7%	14.0%
Coach	5.1%	6.2%
TOTAL	100.0%	100.0%

15. These mode shares have been used in the crowd flow analysis presented in the Design and Access Statement to determine spectator circulation post-event for an OVG Arena Only egress and an OVG Arena + Etihad Stadium egress (DAS, p124).

Table 2: OVG Arena Only direction of travel used in crowd flow analysis (DAS, p124).

Direction of travel	% Arena Demand	% Etihad Stadium Demand
Access to/from tram	20%	0%
Access to/from canal walk	5%	0%
Southbound (city, bus, other)	35%	0%
North (car park and beyond)	40%	0%
TOTAL	100%	0%

Table 3: OVG Arena + Etihad Stadium direction of travel used in crowd flow analysis (DAS, p124).

Direction of travel	% Arena Demand	% Etihad Stadium Demand
Access to/from tram	20%	10%
Access to/from canal walk	5%	1%
Southbound (city, bus, other)	55%	64%
North (car park and beyond)	20%	25%
TOTAL	100%	100%

16. A comparison between the mode share set out in the Transport Assessment and the assumptions used in the crowd flow modelling indicate the following:

Car and Coach Parking

17. Spectator circulation patterns in the crowd flow modelling undertaken for the planning application are reliant on the success of the travel demand management measures to reduce the use of the private car and dissuade spectators from using on-street parking to the north of the Etihad Campus.
18. The strategy set out in the Transport Assessment is based on re-directing off-site parking to the city centre, although the Event Management Plan advised that *'in the main, guests are likely to approach the arena from the North if driving or from the south if walking, using Metrolink, Busses or Taxi's'* (EMP, p17)
19. The benchmarking presented in the Transport Assessment indicates other arenas in England have a car mode share of 75% - 80% (TA, p74). The proposed car mode share for the OVG Arena is significantly (15% to 20%) less when compared to these venues. Given the on-site car parking limitation of 500 to 3,000 car parking spaces available to the OVG Arena, the success of the travel demand management measures will have a big impact on the number of spectators looking to access off-site car parking.
20. In addition, there will be a further loss of on-site car parking when the 1,300 on site car parking spaces to the east of Etihad Stadium are no longer available (TA, p49). It is unclear in the planning application if the

crowd flow modelling in the Design & Access Statement has taken this into consideration the implications on both OVG Arena and Etihad Stadium circulation patterns.

Etihad Campus Metrolink station

21. The assumed OVG Arena spectator demand for the Etihad Campus Metrolink station tram services in the crowd flow modelling is in excess of the transport mode share forecasts in the Transport Assessment.

Walking

22. The Event Management Plan identifies walking routes as 'a key strategy to ensure the reduction of parking at the arena' (*EMP, p28*), but this is not reflected in the target mode share objectives set out in the Transport Assessment which forecast a mode share increase of 1.4% to 1.8% on weekdays and of 0.8% to 1.0% on weekends (*TA, p75*)
23. The crowd modelling assumptions in the Design & Access Statement (*DAS, p124*) assign 5% of OVG Arena spectator demand to the canal route. This is a higher proportion of OVG Arena spectators assumed to walk in all directions (up to 1.8%), in the Transport Assessment.
24. It should be noted that the canal walking route is not currently advertised as a walking route by Manchester City Football Club on their website (<https://www.mancity.com/etihad-stadium/visiting-the-etihad-stadium>).
25. It is unclear in the planning application if the crowd flow modelling in the Design & Access Statement (*DAS, p124*) has considered the impact of OVG Arena spectators not using this route (and remaining on Joe Mercer Way to continue travelling southbound).

Crowd Modelling Assumptions in the Planning Application

- 26. This chapter sets out MSL’s understanding of the crowd modelling parameters stated in the planning application.
- 27. There is limited detail provided on the performance of the Arena layout and operation in any of the documents submitted as part of the planning application.

OVG Arena Spectator Arrivals

- 28. The Transport Assessment sets out the assumed arrival profile for an evening arena event, spread over a three-hour period with 40% of demand arriving over a 1-hour period (*TA, p73*). It is not clear if this is the same arrival profile is used in the crowd flow modelling presented in the Design & Access Statement.
- 29. The Event Management Plan states that a no bag policy is likely with soft ticket checks on the External Podium and searching procedures likely to use walk through magnetometers, with sufficient security lanes provided to cater for the demand considered (*EMP, p17*). There is no evidence regarding the number of lanes that will be provided, the processing rate used or any detail on the arrival profile assumed.
- 30. The Design & Access Statement provides diagrams for assumed spectator demand accessing the OVG Arena (*DAS, p118 – p119* and see Table 4)

Table 4: Assumed OVG Arena demand (DAS,p118-119).

Building Line Access	% Demand	Demand
Level 00 Joe Mercer way (North West)	39.1%	9,200 persons
Level 00 Sportcity Way (North)	8.7%	2,043 persons
Level 01 Joe Mercer (North West)	26.9%	6,325 persons
Level 01 Joe Mercer (South West)	22.3%	5,255 persons
Level 01 Alan Turing Way (East)	3.0%	700 persons
ALL ACCESS POINTS	100.0%	23,523 persons

- 31. The Design & Access Statement provides alternative diagrams for assumed spectator demand accessing the OVG Arena (*DAS, p113*) in the ‘Access into the Venue’ chapter (see Table 5).

Table 5: Alternative OVG Arena demand (DAS,p113).

Building Line Access	% Demand	Demand
Level 00 Joe Mercer way (North West)	19.1%	4,489 persons
Level 00 Sportcity Way (North)	10.9%	2,562 persons
Level 01 Joe Mercer (North West)	37.1%	8,718 persons
Level 01 Joe Mercer (South West)	32.9%	7,731 persons
Level 01 Alan Turing Way (East)	0.0%	0 persons
ALL ACCESS POINTS	100.0%	23,500 persons

32. The Event Management Plan sets out an objective to benchmark against ‘The Guide to Safety at Sports Grounds, 6th Edition’, which requires venues to provide sufficient entry points or turnstiles to enable spectators to enter within a period of one hour. The Planning Statement advised that the venue will be compliant with this guidance (PST, p5).
33. There are significant differences in the level of spectator demand assumed to use the OVG Arena access points available. It is unclear in the crowd flow modelling undertaken in the Design & Access Statement what assumptions have been used to determine the sizing of turnstiles/entry point and security screening overlay required. Potential delays to spectators accessing the OVG Arena will directly influence the level of queuing to be expected in the public realm pre-event.
34. The Design & Access Statement provides no detail on the spectator arrival profiles assumed for the Etihad Stadium, although the Transport Assessment advises these have been derived from the Transport Assessment for the Proposed Etihad Stadium Expansion (TA, p78). The arrival graphs provided within the Transport Assessment, indicate an assumed peak of approximately 90% of Etihad Stadium spectators assumed to access the stadium over a 1-hour period.

OVG Arena Event Interval

35. The crowd flow modelling provides limited information on the performance of the OVG Arena’s internal concourses during an interval period. The Event Management Plan states that the concession and toilet provisions **at most locations** are sufficient to cater the demand for the interval duration considered (*EMP, p16*). There is no advice on what interval duration has been considered, the target levels of service designed to and/or what locations do/do not have sufficient provision.

OVG Arena Spectator Departures

36. The Transport Assessment sets out the assumed spectator departure profile for an evening OVG Arena event, with 100% of spectators departing over a 1-hour period (*TA, p73*). It is not clear if this is the same departure profile used in the crowd flow modelling presented in the Design & Access Statement.
37. The Event Management Plan describes egress from the Arena as a **complex operation**, with crowd flow models used to inform design decisions around exit widths, concourse layouts and seating bowl vomitories (*EMP, p18*). No detail is provided on the performance of the OVG Arena, although than the Event Management Plan states there is sufficient capacity **at most locations** within the OVG Arena, with occasional high density at the top of open stairs/escalators (*EMP, p16*).
38. The Design & Access Statement provides diagrams for assumed spectator building line exit routes from the arena (*DAS, p120 – p121*), which indicate the following building line departure distribution (see Table 6).

Table 6: OVG Arena exit routes (*DAS,p120-121*).

Building Line Exit	% Demand	Demand
Level 00 Joe Mercer way (North West)	9.0%	1,650 persons
Level 00 Sportcity Way (North)	14.3%	2,634 persons
Level 01 Joe Mercer (South West)	59.9%	11,025 persons
Level 01 Alan Turing Way (East)	8.8%	1,621 persons
Level 01 Forge Lane Bridge (South)	8.0%	1,478 persons
ALL EXIT	100.0%	18,408 persons

39. The spectator demand presented in the Design & Access Statement is less than the 23,500 spectator maximum capacity of the OVG Arena; i.e. there are 5,092 spectators unaccounted for.
40. The Transport Assessment identifies the width of the Sportcity Way footway as 2.5m (*TA, p33*) and states the need to increase the footway width to 8m to assist with crowd movement on egress (*TA, p64*). It is unclear what the peak spectators demand is along Sportcity Way, with the Design and Access Statement showing egress mainly via Joe Mercer Way (*DAS, p121*).
41. Additional detail is also required on the positioning of HVM bollards on this route, and their potential impact on the ability for OVG Arena and Etihad Stadium spectators to circulate around this area.
42. There is no detail provided on the spectator departure profiles assumed for the Etihad Stadium, which has been derived from the Transport Assessment for the Proposed Etihad Stadium Expansion.
43. The graphs provided within the Transport Assessment, indicate the assumed profile consist of 48% of spectators departing over the first hour and 52% of spectator departing over the following hour, after the end of a match (*TA, p78*).

OVG Arena Evacuation

44. There is limited information provided in any of the planning application documents on the detail of the emergency evacuation of the OVG Arena and how the proposed design and operation will accommodate a maximum capacity event simultaneously evacuating.
45. The general approach described in the Event Management Plan (*EMP, p19*) involves (see Table 7):
 - Spectators on Level 00 evacuating onto Sportcity Way. The Design & Access Statement adds further detail that 4,752 spectators will evacuate onto Joe Mercer Way (North West) and 8,899 spectators evacuating onto Sportcity Way (*DAS, p122*)
 - Spectators on Level 01 evacuating onto the External Podium. The Design & Access Statement adds further detail that 13,483 spectators will evacuate onto the External Podium of which 10,157 spectators will then continue onto Joe Mercer (South West), 1,478 spectators onto Forge Bridge Lane and 1,848 spectators onto Alan Turing Way. (*DAS, p123*).

Table 7: OVG Arena evacuation routes (DAS p122-123).

Building Line Exit	% Demand	Demand
Level 00 Joe Mercer way (North West)	17.5%	4,752 persons
Level 00 Sportcity Way (North)	32.8%	8,899 persons
Level 01 Joe Mercer (South West)	37.4%	10,157 persons
Level 01 Alan Turing Way (East)	6.8%	1,848 persons
Level 01 Forge Lane Bridge (South)	5.5%	1,478 persons
ALL EXIT	100.0%	27,134 persons

46. The Design & Access Statement advises the fire engineering design has aimed to meet an egress time of 8 minutes from the point that occupants start moving when they hear the fire alarm to the point that occupants leave the building or enter a free-flowing protected stair (DAS, p123). It also advises that horizontal circulation for wheelchair users in the upper tiers has been considered, but does not provide any indication of capacity available or time taken for wheelchair users to exit the building.

47. It is **essential** that the emergency evacuation from the OVG Arena is considered at design stage in order to ensure the emerging (detailed) design does not unduly constrict or undermine the ability of spectators to move away from the building line. A review of the strategy indicates:

- Approximately 55% - 65% of the OVG Arena is expected to evacuate onto Joe Mercer Way, but no assessment has been provided of the capacity of Joe Mercer Way to accommodate this flow, in particular when in use by spectators attending the Etihad Stadium,
- There is no advice on where spectators directed onto Sportcity Way will be guided. Should these spectators choose to access Joe Mercer Way (the route they used to access the venue), this route would then need to accommodate approximately 85% of the venue population.
- The level of spectator demand directed onto Alan Turing Way, the effective width available, and the management of spectators emerging onto a route with live traffic on a dual carriageway with lanes in either direction (TA, p47) needs to be considered.
- The level of spectator demand directed to Forge Bridge Lane and the potential impact of the onward route being re-developed (TA, p49) also needs to be explored in order to determine if there is a potential reduction in evacuation width available and the associated impact of the re-routing of spectators on the External Podium.

Campus-Wide Crowd Modelling Analysis undertaken by MSL

48. As part of this review MSL has undertaken a static assessment of spectator circulation in the Etihad Campus.
49. The planning application submitted makes reference to two scenarios that are assessed as part of the crowd flow modelling:
- Scenario 1 - OVG Arena weekday evening event egress
 - Scenario 2 - OVG Arena weekday evening event egress + Etihad Stadium weekday evening egress
50. MSL has revised a number of the crowd flow modelling assumptions (detailed further in this chapter) in order to establish the level of congestion and queuing (if any) that may be experienced by spectator attending the Etihad Campus on an event day.
51. Due to the potential for event 'cross over' within the Etihad Campus a further scenario has also been assessed as part of this review:
- Scenario 3 - OVG Arena weekend evening event arrivals + Etihad Stadium weekend afternoon egress (17:30 kick off)

MSL Crowd Flow Modelling Assumptions

52. This section sets out the crowd flow modelling assumptions used by MSL as part of this assessment.

Flow rates

53. Flow rates are used to determine the capacity of pedestrian circulation routes, assuming a maximum number of people that can move across a one metre width over a one-minute period. For the purpose of this assessment, the following flow rates have been assumed:
- One direction of travel @ 82 people / minute / metre width
 - Two directions of travel @ 65 people / minute / metre width
54. The one direction flow rate is derived from the Guide to Safety at Sports Ground, 6th Edition. It should be noted that there is some debate as to whether these flow rates are maintained throughout crowd movement. However, we adopt these to align with current guidance and not adopt contentious assumptions that could be perceived as overly stressing the design.

Queuing density

55. Whilst maximum queuing densities of 4 persons / m² are permitted in The Guide to Safety at Sports Ground, 6th Edition (in limited circumstances), for the purpose of this assessment a maximum queue density of 3 persons / m² has been assumed.

Spectator Arrivals

56. The Transport Assessment makes reference to the Bristol Arena planning application as a benchmark. The crowd flow modelling submitted in the Bristol Arena planning application quotes a peak of 30% of spectator arriving over a 15-minute period. This is consistent with the spectator arrival profile at turnstiles set out in the Transport Assessment for the Proposed Etihad Stadium Expansion (2013).
57. The Bristol Arena planning application arrival profile has been used for the purpose of the MSL static assessments of spectator arrivals at the OVG Arena.

Spectator Departures

58. The crowd flow modelling submitted in the Bristol Arena planning application quotes a departure profile of all spectators leaving over a 20-minute period. The Bristol Arena planning application departure profile has been used for the purpose of the MSL static assessments of spectator departures from the OVG Arena.
59. The Transport Assessment makes reference to Tottenham Hotspur's White Hart Lane as a benchmark. The spectator departure profiles used at planning phase were in the region of 70% of spectators departing over a 15-minute period after the end of an event. The Tottenham Hotspur departure profile has been used for the purpose of the MSL static assessments of spectator departures from the Etihad Stadium.

Spectator Routing

60. The Design & Access Statement presents some detail on where OVG Arena spectators are assumed to arrive and depart the OVG Arena building line. The distribution of venue entry points varies in the document, and the figures provided for egress do not account for the full OVG Arena population. For the purpose of MSL's campus-wide assessment of spectator demand vs infrastructure capacity available, it is assumed that all northbound and southbound demand for the OVG Arena will circulate along Joe Mercer Way.
61. The Transport Assessment presents some detail on the forecast spectator transport mode share for the OVG Arena. In instances where no detail on spectator routing is presented in the Design & Access Statement, transport mode share figures have been used to estimate direction of spectator travel.

Scenario 1 – Arena Only weekday evening event egress

62. This scenario comprises a maximum capacity (23,500 spectators) weekday evening event at the OVG Arena, with spectators departing the OVG Arena and negotiating the Etihad Campus to access their onward travel options.
63. This scenario is considered in the Transport Assessment and Design & Access Statement. No detailed information is provided on OVG Arena spectator arrival or departure patterns assumed for the crowd flow modelling. None of the documents provide any analysis of the:
- Impact on pedestrian circulation routes within the wider Etihad Campus
 - Impact on bus stops serving the site
 - Impact on rail station served by National Rail
 - Impact on the proposed Taxi / private vehicle pick up operation on Rowsley Street.
64. The following section presents the results of MSL’s campus-wide review of key circulation routes within the Etihad Campus and makes a comparison with the crowd modelling results presented in the planning application. It should be noted that the MSL analysis has been undertaken using the crowd modelling assumptions set out at the beginning of this chapter.

Joe Mercer Way

Planning Application Analysis

65. The Transport Assessment states that the Etihad Stadium currently manages the crossing of pedestrians and vehicles at the Sportcity Way / Joe Mercer Way interface by alternating vehicle and pedestrian flow. The crowd flow analysis undertaken for the OVG Arena planning application states that unobstructed crowd flow is required across Sportcity Way to prevent overcrowding on the southern Sportcity Way footway and avoid queues forming back into the arena (TA, p64).
66. There is a requirement to close Sportcity Way to traffic at the junction with Joe Mercer Way before and after an Arena event, in addition to widening the footway on the southern half of Sportcity Way to accommodate pedestrian egress after an Arena event (TA, p64). The documents provided as part of the planning application provide limited detail on the level of congestion to be expected at this location or the level of spectator demand along Sportcity way that requires the footway to be widened from 2.5m (TA, p33) to 8m.

MSL Analysis

67. An assessment of OVG Arena spectators travelling north after an event indicates OVG Arena spectators will require 5.7m of the 20m width available on Joe Mercer Way (28%) to ensure free flowing conditions.
68. An assessment of OVG Arena spectators travelling south after an event indicates OVG Arena spectators will require 8.5m of the 20m width available on Joe Mercer Way (43%) to ensure free flowing conditions.

69. Considering the combined two-way flow (northbound and southbound) of OVG Arena spectators, Joe Mercer Way would be operating at 90% capacity after an event at the OVG Arena. A 20% reduction in width available sensitivity scenario results in queues of 2,700 spectators at this location.

Ashton New Road

Planning Application Analysis

70. No detailed information is provided on the performance of this route during OVG Arena event egress.

MSL Analysis

71. An assessment of OVG Arena spectators travelling south after an event indicates OVG Arena spectators will require 3.5m circulation width to ensure free flowing conditions. It should be noted that this assessment **does not** consider additional OVG Arena spectator demand which may choose not to use the Etihad Campus Metrolink station should TfGM not provide a 6-minute frequency westbound rail service towards the City Centre.

Gate 1 / Alan Turing Way

Planning Application Analysis

72. The planning application advises there will be a widening of the pedestrian route from 5m to 8m (*TA, p67*) in order to accommodate the increase in pedestrian demand. The proposed changes to the highway layout will result in free-flowing left turning traffic from Gate 1 onto Alan Turing Way (*EMP, p20*) after an event at the OVG Arena. A marshalling operation is proposed at this location before and after an event to manage vehicle/pedestrian conflict (*TA, p67*), with car park clearance times of up to 41 minutes, assuming an even split of vehicles travelling north and south (*TA, p65*).

73. No detailed information is provided on the assumptions used to assess this route and/or the performance of this route during OVG Arena post event egress including level of spectator queueing that can be expected during the egress period.

MSL Analysis

74. An assessment of OVG Arena spectators travelling north after an event indicates OVG Arena spectators travelling via Gate 1 can be accommodate on the 8-metre route provided. There may be some queuing as vehicle / pedestrian conflict is managed.

Taxi Pick Up at Rowsley Street.

Planning Application Analysis

75. The Transport Assessment advises there is an existing taxi rank on Rowsley Street which accommodates up to 10 taxis. The planning application proposes the extension of the taxi rank along the full length of Rowsley Street and onto Philips Road for drop off / pick up by black cabs, private hire vehicles and private vehicles. The proposed layout can provide sufficient space for approximately 70 vehicles in a managed rank facility along the kerbside. (TA, p113)
76. The Transport Assessment advises that drop off / pick up also takes place on Ashton New Road and Briscoe Lane (TA, p53) but provides no additional information on the level of pedestrian demand to be expected at these locations and/or how OVG Arena spectators queuing will be managed at these locations. No detailed information is provided on how spectators will be managed to access a private/booked vehicle at this location or off site.

MSL Analysis

77. An assessment of OVG Arena spectators using taxis or being picked up after an event at the OVG Arena (assuming 2 persons per vehicle, 70 parking bays and 2 minute per pick up) indicates there may be some queuing (approximately 220 persons) at this location. It should be noted that this assessment does not consider how private vehicle and Uber pre-booking will be managed to direct spectators to pre-booked vehicles.

Etihad Campus Metrolink station

Planning Application Analysis

78. The survey data for the Etihad Campus Metrolink station on a weekday matchday (TA, p41) is provided in aggregate 30-minute time periods, showing the peak arrival period takes place 60 to 30 minutes before kick-off and the peak departure period takes place 10 to 40 minutes after the end of the match.
79. The assessment of the Etihad Campus Metrolink rail station assumes the same level of service frequency as a match day at Etihad Stadium will be achieved (TA, p87). The Event Management Plan states that *'collaboration with TfGM will be established to plan and promote enhanced Metrolink services on event days... in the same way as currently operates on Stadium Event days'* (EMP, p30).
80. Based on the provision of these additional services, the Transport Assessment concludes that *'the impact on the Metrolink from a weekday evening event at the arena on non-matchday would not be different to that currently experienced on an evening weekday evening match at Etihad Stadium'* (TA, p88).
81. None of the assessments undertaken as part of the planning application submission present a comparison of Metrolink service capacity per direction of travel and OVG Arena spectator demand per direction of

travel, to determine the level of queuing / delays to be experienced by OVG Arena spectators departing. The assessment advises that although the OVG Arena post event peak demand will be higher than that of a match day at Etihad Stadium, this will be managed by the station (TA, p87).

MSL Analysis

82. In order to better understand the level of queuing that is to be expected at the Etihad Campus Metrolink station, the Metrolink Survey Data (TA, Appendix A, p118) has been reviewed to determine spectator direction of travel and service capacity. The information provided indicates that post match 84% of spectators look to travel towards the City Centre, with each tram service having an average maximum occupancy of 376 persons per tram.
83. Assuming TfGM were to provide a 12-minute service, queues of 3,200 persons can be expected with maximum individual delays of 100 minutes. If TfGM were to provide a 6-minute service, queues of 1,100 persons can be expected with maximum individual delays of 45 minutes.
84. It is essential to understand the rail service provision for an OVG Arena event in order to determine if the walking routes to the City Centre will be able to accommodate spectator demand.
85. The assessment undertaken suggests there will be queuing at the Etihad Campus Metrolink station, even if an Etihad Stadium match day service can be provided. The assessment does not consider other OVG Arena operation scenarios, in order to understand the level of queuing to be expected for each type of OVG Arena configurations (i.e. for 16,000 – 20,000 spectator events) and ensure a commitment from TfGM to manage these queues on up to 120 events a year.

Ashbury Rail station

Planning Application Analysis

86. No detailed information is provided on the performance of this route during OVG Arena event egress.

MSL Analysis

87. An assessment of OVG Arena spectators travelling south after an event indicates OVG Arena spectators will require 1.2m circulation width to ensure free flowing conditions.
88. It should be noted that this assessment **does not** consider how spectators will be managed at the station and/or if queuing structures are required to separate spectators by destination.

Scenario 2 – Arena weekday evening event egress + Stadium weekday evening event egress

89. This scenario comprises a maximum capacity (23,500 spectators) weekday evening event at the OVG Arena and a maximum capacity (61,000 spectators) weekday evening event at the Etihad Stadium. Spectators departing the OVG Arena and Etihad Stadium and negotiate the Etihad Campus to access their onward travel options.
90. This scenario is considered in the Transport Assessment and Design & Access Statement.
91. The Event Management Plan states that the Arena will look to *'manage show finish time to ensure that it does not finish earlier than 22:30 to ensure that the hard egress from the stadium has finished prior to the hard egress from the arena. Where Stadium events have the potential to extend into Extra Time and penalties, the arena will further the delay finish time to 23:00 in advance, to still provide a 20-minute buffer between both venues finishing'* (EMP, 8).
92. The Event Management Plan also states *'ingress is likely to be unaffected in general although local routes and transport hubs are likely to be busier than normal'* and that *'it has been witnessed that there is plenty of circulation space for simultaneous arrival to both the arena and stadium within the current external space'* (EMP, p7). No evidence is provided to ascertain this statement.
93. The Event Management Plan and Design & Access Statement present a scenario where the gap between the Stadium Match End and Arena Event End reduces from 45 minutes to 20 minutes, with limited car parking available on site for Arena spectators. It is unclear from the Transport Assessment whether this scenario has also been adopted as a worst case.
94. This scenario is considered in the Transport Assessment and Design & Access Statement. No detailed information is provided on OVG Arena or Etihad Stadium spectator arrival or departure patterns assumed for the crowd flow modelling. None of the document provide an analysis on:
- Impact on pedestrian circulation routes within the wider Etihad Campus
 - Impact on bus stops serving the site
 - Impact on rail station served by National Rail
 - Impact on the proposed Taxi / private vehicle pick up operation on Rowsley Street.
95. The following section presents the results of MSL's campus-wide review of key circulation routes within the Etihad Campus and makes a comparison with the crowd modelling results presented in the planning application. It should be noted that the MSL analysis has been undertaken used the crowd modelling assumptions set out at the beginning of this chapter.

Joe Mercer Way

Planning Application Analysis

96. The Event Management Plan advises that *'high density levels are likely at the access to the new central pedestrian crossing at Sportcity Way and at the South West (SW) corner, during a multi-event egress due to limited width for flows to the South'* (EMP, p16). No additional detail is provided on the level of congestion to be experienced at this location and how this will be managed.

MSL Analysis

97. An assessment of OVG Arena and Etihad Stadium spectators travelling along this route indicates approximately 20,000 pedestrians travelling northbound and 19,000 pedestrians travelling southbound during the combined egress period. This level of demand results in maximum spectator queues of 1,200 persons at this location (i.e. the route may be over capacity).
98. It should be noted that this assessment, considers northbound and southbound movements, but does not include the impact of a proposed east / west movement towards the Canal. A sensitivity scenario where the flow rate decreases by 10%, shows that queues would increase to 2,500 persons at this location.
99. With the levels of spectator demand looking to access transport opportunities northbound and southbound across a single bridge (no re-routing options available), there is likely to be congestion across the bridge and Arena exit. The Design & Access Statement makes reference to this congestion, but does not set out how this will be managed.

Ashton New Road

Planning Application Analysis

100. No detailed information is provided on the performance of this route during OVG Arena event egress.
101. The assessment does not identify how the 140 Taxi/Uber/Private vehicles bays on Rowsley Street will be managed, taking into account the road closures and level of pedestrian demand on Ashton New Road post event potential use of the highway by spectators.

MSL Analysis

102. An assessment of OVG Arena spectators travelling south after an event indicates OVG Arena and Etihad Stadium spectators will require 19m circulation width to ensure free flowing conditions. It should be noted that this assessment **does not** consider additional OVG Arena spectator demand which may choose not to use the Etihad Campus Metrolink station should spectator find the maximum delays at the Etihad Campus Metrolink station unacceptable (and decide to walk to the City Centre).

Gate 1 / Alan Turing Way

Planning Application Analysis

103. No detailed information is provided on the assumptions used to assess this route and/or the performance of this route during OVG Arena post event egress including level of spectator queueing that can be expected during the egress period.

MSL Analysis

104. An assessment of spectators travelling north after an event indicates OVG Arena and Etihad Stadium spectators travelling via Gate 1 can be accommodate on the 8-metre route provided. There may be some queuing (1,200 persons) as vehicle / pedestrian conflict is managed (assuming 3 minutes for vehicles and 2 minutes for pedestrians every 5 minutes), which should be considered by the applicant.

Taxi Pick Up at Rowsley Street.

Planning Application Analysis

105. The planning application does not provide detail on how:

- Spectators will be managed to access a private/booked vehicle
- Vehicles will negotiate the road closures on Ashton New Road post event to re-fill the pick-up bays
- The impact of the forecast volume of vehicles on OVG Arena and Etihad Stadium pedestrian demand using Ashton New Road to access the City Centre or other destination to the south of the Etihad Campus

MSL Analysis

106. An assessment of OVG Arena and Etihad Stadium spectators using taxis or being picked up after an event (assuming 2 persons per vehicle, 70 parking bays and 2 minute per pick up) indicates that there may be queuing (approximately 3,000 persons) at this location with maximum individual delays of 45 minutes. It should be noted that this assessment does not consider how private vehicle and Uber pre-booking will be managed to direct spectators to pre-booked vehicles.

Etihad Campus Metrolink station

Planning Application Analysis

107. The Event Management Plan makes reference to a *'special event operational plan... to ensure that every possible Metrolink service was operated by a double-unit and the duration of shuttle services arranged with operators to capture any remaining expected demand'* (EMP, p31).

108. The Transport Assessment concludes that *'the arena when coinciding with a matchday at the Etihad Stadium on a weekday... would have an impact on the Metrolink network'* (TA, p95), particularly on services accessing the city centre, but does not provide any indication on level of queuing and/or delay to be experienced by spectators.

MSL Analysis

109. An assessment of the forecast OVG Arena and Etihad Stadium spectators travelling westbound on the Etihad Camps Metrolink services after an event has been undertaken. If TfGM were to maintain the 6-minute westbound rail service, queues of 6,800 persons can be expected with maximum individual delays of 110 minutes.

110. The level of delays expected may result in spectators deciding not to wait for this service and walk to the City Centre. The applicant's assessment should consider the impact of additional spectator demand on Ashton New Road and the ability of the footways to accommodate an increase in spectator demand once they have passed the existing road closures.

Ashbury Rail station

Planning Application Analysis

111. No detailed information is provided on the performance of this route during OVG Arena event egress.

MSL Analysis

112. An assessment of OVG Arena spectators travelling south after an event indicates OVG Arena spectators will require 2.5m circulation width to ensure free flowing conditions.

113. It should be noted that this assessment **does not** consider how spectators will be managed at the station and/or if queuing structures are required to separate spectators by destination.

Scenario 3 – Arena weekend evening event ingress + Stadium weekend afternoon event egress

114. This scenario comprises a maximum capacity (23,500 spectators) weekend evening event at the OVG Arena and a maximum capacity (61,000 spectators) weekend afternoon event at the Etihad Stadium. Spectators departing the Etihad Stadium negotiate the Etihad Campus to access their onward travel options, whilst spectators also negotiate the Etihad Camps to access the OVG Arena.

115. This scenario is referenced in the Event Management Plan at a 16:00 kick off at the Etihad Stadium, but as a 17:30 kick off in the Transport Assessment (*TA*, p78).

116. No crowd modelling assessment of an OVG Arena spectator arrival and Etihad Stadium spectator departures is presented in the documents submitted as part of the planning application, but the Event Management Plan makes reference to this scenario having minimal impact on pedestrian circulation routes and transport opportunities (*EMP*, p7). There is no evidence provided to support this statement.

117. A review of the Manchester City Football Club 28 home fixtures in the 2018 – 2019 season indicate the following:

- 12 matches had a weekday kick off between 19:45 and 20:00
- 12 matches had a weekend kick off between 15:00 and 17:30
- Four matches had a weekend kick off between 12:30 and 14:00

118. Given the likelihood of OVG Arena and Etihad Stadium event overlapping, a campus-wide assessment of spectator circulation has been undertaken by MSL.

Joe Mercer Way

Planning Application Information

119. The Event Management Plan advises that this scenario requires a 'small queuing area on Joe Mercer Way but nothing significant. All other queues are away from the stadium circulation routes'. The document further advises that during stadium egress, there are 'queues likely outside the majority of the arena entrances at this time, however, apart from the queue zone on Joe Mercer Way, little impact to the stadium egress is expected' (*EMP*, p7). No evidence is provided to ascertain the capacity available along Joe Mercer Way for spectators departing the Etihad Stadium and/or the size of queuing expected at the OVG Arena site boundary as soft ticket check and security screening is taking place.

MSL Analysis

120. An assessment of OVG Arena and Etihad Stadium spectators travelling along this route indicates approximately 35,000 pedestrians travelling northbound and 5,000 pedestrians travelling southbound during the combined ingress and egress period. This level of demand results Joe Mercer Way operating at 90% capacity (i.e. 10% of the bridge circulation capacity is not in use)
121. This assessment does not consider impact of OVG Arena spectators queuing outside during the soft ticket check and security screening process. With the Event Management Plan identifying 'queues likely outside the majority of the area entrances', the applicant should determine if there is sufficient capacity to accommodate forecast queues to access the OVG Arena and spectators travelling northbound and southbound on Joe Mercer Way.

Ashton New Road

Planning Application Information

122. No detailed information is provided on the performance of this route during OVG Arena event egress.
123. The assessment does not identify how the 140 Taxi/Uber/Private vehicles bays on Rowsley Street will be managed, taking into account the road closures and level of pedestrian demand on Ashton New Road post event potential use of the highway by spectators.

MSL Analysis

124. An assessment of OVG Arena spectators travelling south after an event indicates OVG Arena and Etihad Stadium spectators will require 26m circulation width to ensure free flowing conditions.
125. The impact of OVG Arena spectator arrival and Etihad Stadium spectator departure overlapping should be considered by the applicant. A sensitivity scenario with additional OVG Arena demand arriving from the City Centre should also be considered to determine any potential impact on spectator circulation within in the Etihad Campus.

Gate 1 / Alan Turing Way

Planning Application Information

126. No detailed information is provided on the assumptions used to assess this route and/or the performance of this route during OVG Arena post event egress including level of spectator queueing that can be expected during the egress period.

MSL Analysis

127. An assessment of OVG Arena spectators travelling southbound to access the OVG Arena (pre event) and Etihad Stadium spectators travelling northbound (post event) via Gate 1 indicates there may be some queuing (2,200 persons) as vehicle / pedestrian conflict is managed (assuming 3 minutes for vehicles and 2 minutes for pedestrians every 5 minutes), which should be considered by the applicant.

OVG Arena Operation Modes not considered

128. Whilst the Event Management Plan highlights that crowd modelling '*is more important than usual given the location of the arena, within the Etihad Campus, and in proximity to the stadium*' (EMP, p16), only two of the event mode scenarios have been assessed as part of the crowd modelling presented in the Design & Access Statement.

129. Key scenarios that have been omitted in the planning application and should be addressed in the crowd modelling analysis include:

Emergency evacuation

130. There is no emergency evacuation scenario presented in the documents submitted as part of the planning application. This is a key scenario, required in the guidance documents referenced by the Event Management Plan (EMP, p4).

131. Scenario that should be considered in the crowd flow modelling may include:

- A maximum capacity OVG Arena event
- A maximum capacity OVG Arena event during Etihad Stadium departures
- A maximum capacity OVG Arena and Etihad Stadium simultaneous evacuation

MCFC Evening Concert + Arena Evening Concert

132. The Event Management Plan states that '*on days where a concert is scheduled in the stadium, it is **likely** that the arena will not schedule events*' (EMP, p8). Should this type of event day take place, there is likely to be a change in overall spectator demand, distribution and circulation patterns within the Etihad Campus and surrounding area. The impact of cumulative spectator demand, particularly post event, should be considered as part of the crowd flow modelling.

133. Scenarios which are referenced in the planning application, but which require further clarification include:

Arena Matinee events

134. OVG Arena Matinee events are likely to begin at 15:00 and end by 17:00 (EMP, p9) and are typically expected to accommodate 11,750 spectators due to the configuration of the Arena (EMP, p9). The proposed event configurations (EMP, p10) advises there are only 10% of events (12 events per year increasing to 18 events per year) expected to have a minimum configuration of 11,750 spectator or less.

135. This means the potential number of tickets available is likely to be in excess of 11,750 spectators. This further emphasises the need (in addition to the Etihad Stadium weekend 17:30 kick off and OVG Arena weekend evening event), to understand a spectator circulation patterns during simultaneous arrivals and departures at the Etihad Campus.



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Appendix B – Air Quality Analysis



OVG Arena: Impact on Climate Change

June 2020



Experts in air quality
management & assessment

Document Control

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Job Number	J4038
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Report Prepared By:	Laurence Caird
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Document Status and Review Schedule

Report No.	Date	Status	Reviewed by
J4038A/2/F3	11 June 2020	Final	Dr Graham Earl

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1 Introduction

- 1.1 This report provides a brief overview of the potential impacts to climate change of the proposed OVG Arena in Manchester.

2 Climate Change Background

- 2.1 Climate change (often referred to as Global Warming) describes the change in the global climate caused by the release of greenhouse gasses¹ (GHG) which act to trap heat within the earth's atmosphere. Climate change include changes (both globally and regionally) of temperature, rainfall, frequency of storms and sea level.
- 2.2 GHG include emissions that occur naturally, for example due to release of methane from peat bogs as well as from human activity, for example due to the combustion of fossil fuels in transport, power generation, combustion heating and from industrial processes.
- 2.3 The primary GHG is carbon dioxide (CO₂) which accounts for over 90% of all GHG emissions. When quantifying GHG it has become normal practice to present them in a common unit called Carbon Dioxide Equivalent (CO₂e), which takes into account that some GHG result in greater warming than others. For example, 1 kg of methane which is a GHG has the same effect on climate as 20 kg of CO₂. To convert methane to CO₂e it is therefore multiplied by 20. CO₂ on the other hand is multiplied by 1.
- 2.4 The proposed OVG Arena will result in the release of GHGs from a range of sources, including heating plant (gas boilers are proposed for primary space heating), electricity consumption, transport and construction (the 'embedded' or 'embodied' GHG emissions released from the mining and manufacture of the construction materials used to build the Arena). Taken together these GHG emissions are commonly referred to as a carbon or more accurately a GHG footprint.

Climate Change Policy

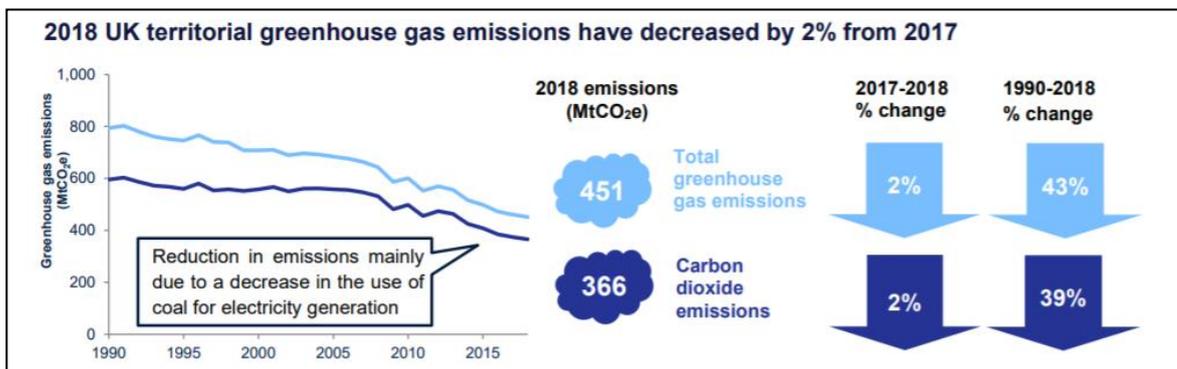
- 2.5 In 1992, members of the United Nations signed the United Nations Framework Convention on Climate Change (UNFCCC), whose objective is to stabilise global climate change. UNFCCC members have met regularly since 1992 to agree treaties to work towards this objective, the most recent and significant of which has been the Paris agreement signed in 2016, which aims to limit global climate change to a less than 2 degrees Celsius increase in average global temperatures by 2100, with an ambition for average global temperatures to increase by no more than 1.5 degrees.

¹ GHG are atmospheric emissions defined as having an effect on global climate and include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆), and nitrogen trifluoride.

- 2.6 To meet the Paris agreement, scientists have calculated that net global emissions² of GHG need to fall to zero by the 2080s and to meet a 1.5-degree objective to be net zero by the middle of this century. In response to this, the UK has set a legally binding target to reduce its GHG emissions to net zero by 2050, delivered through the Climate Change Act. In meeting the long term 2050 target the UK government is also required to set out 5-year milestones on a trajectory towards the 2050 target, known as carbon budgets. So far carbon budgets have been approved by government up until 2032, known as the 5th carbon budget.
- 2.7 The UK's commitment to net zero by 2050, introduced in 2019, coupled with an increasing public awareness and concern about the long-term effects of climate change have led a large number of local authorities to declare 'climate emergencies' and quickly move to introduce local policies to help work towards the net zero 2050 target. Manchester City Council's response to this has been to aspire to meet net zero carbon within the city by 2038; 12 years earlier than the Government's target.

UK GHG Emissions

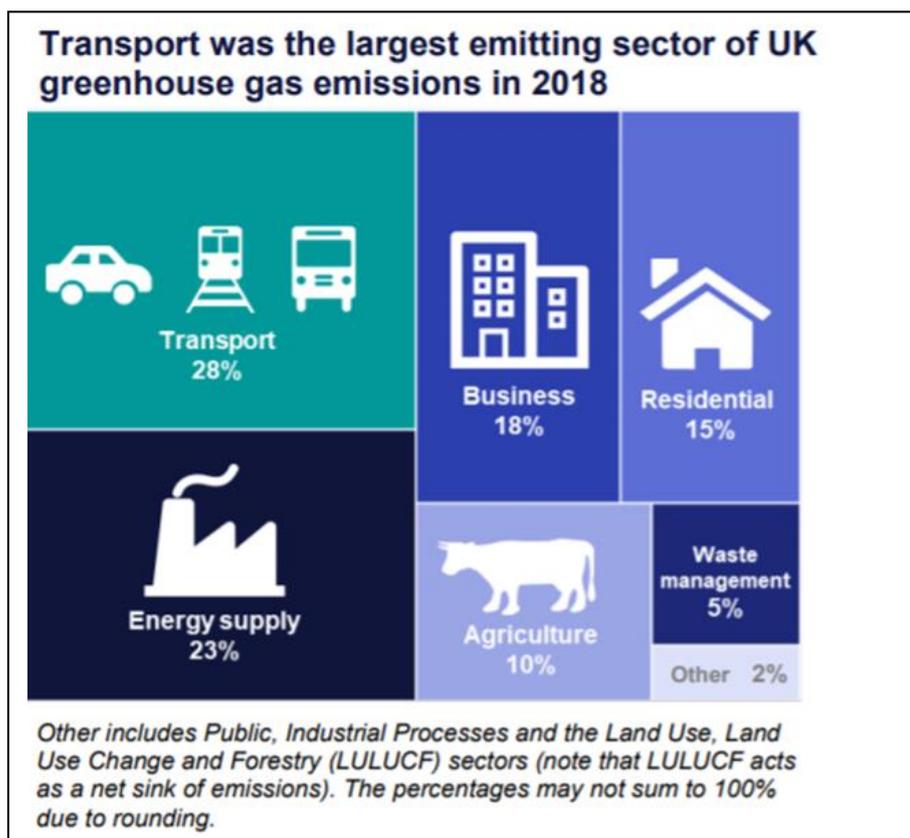
The UK reports its GHG emissions annually to enable it to manage and track its performance. In 2018 the UK emitted 451MtCO₂e. This is a fall of 43% since 1990 as shown below.



The single largest contribution to this fall has been the switch from coal to gas for the generation of electricity. Since 1990 GHG emissions from energy generation have fallen 62% compared to only a 2% fall from transport.

In terms of overall contribution, in 2018 the single largest source of emissions is from transport, as shown below.

² Net emissions reflect that there are both sources of emissions, for example combustion of fuels that add emissions to the atmosphere and carbon sinks, for example trees, that reduce GHG emissions in the atmosphere. The balance between the two are net emissions.



3 Impacts of the OVG Arena on Climate Change

Scale of Impacts

- 3.1 The Environmental Statement (ES) submitted in support of the planning application for the proposed OVG Arena sets out an assessment to quantify the GHGs emitted as a result of the construction and operation of the Arena. The assessment focusses on:
- GHGs from energy consumption (gas and electricity); and
 - Embedded GHGs in construction materials.
- 3.2 The assessment completely discounts transport emissions. As detailed above these are a major source of UK emissions and a significant contributor to the development's GHG emissions. Furthermore these emissions can be influenced by the Arena through the development of measures to encourage sustainable transport (such as mass transit modes) and discouraging private car use.
- 3.3 Despite the exclusion of transport emissions from the assessment, the emissions from construction and energy are estimated to contribute 72,570 tonnes of CO₂e over a 60-year lifetime of the Arena. This resulted in a conclusion within the ES that the impacts of the Arena on climate change from

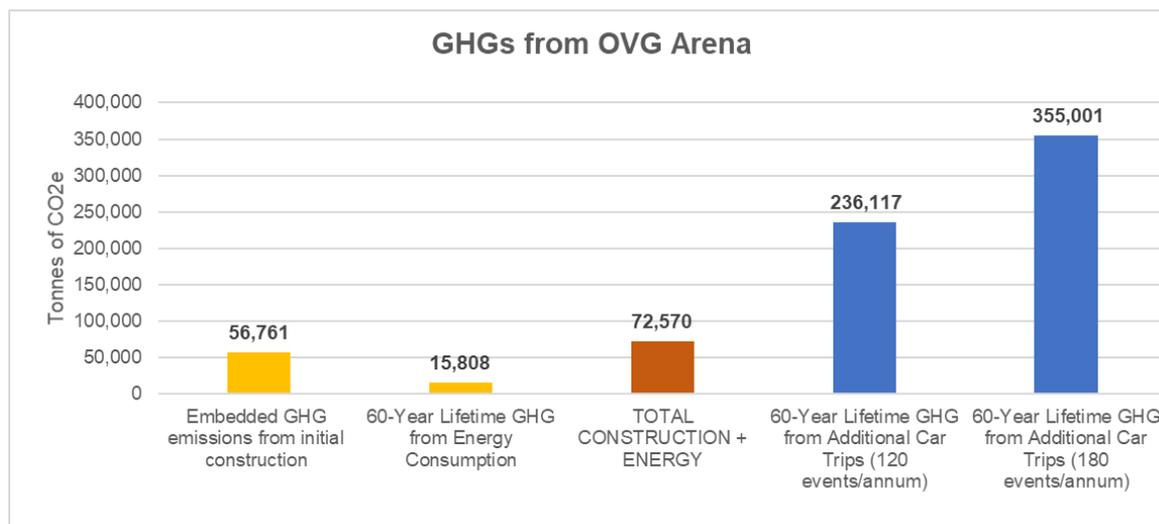
GHG emissions would be major to moderate adverse before mitigation and **moderate to minor adverse** when considering the implications of the proposed mitigation.

3.4 In terms of the transport emissions, Transport Consultants Blacc have undertaken analysis to determine the number of additional car trips likely to be generated by the Arena, based on both 120 events per year and 180 events per year at the Arena (the proposed typical and maximum event numbers). Although additional car trips only represent a proportion of the transport movements to and from the venue by visitors (57%), the additional car trips are important because:

- travel by private car results in higher GHG emissions per person compared to walking, cycling and mass transit modes (bus, Metro and rail transport);
- although the Arena cannot fully control the methods used by visitors to access the site, it can provide mitigation to discourage or prevent private car use in favour of more sustainable transport modes; and
- emissions from transport are significant at a national level, are proving difficult to reduce and thus require action across the economy from all parties including government, individuals and developers.

3.5 To provide some context of the importance of GHG emissions from these additional car trips, the figure below shows the lifetime GHG emissions from construction and energy, as set out in the OVG Arena ES, against the estimated lifetime GHG emissions from additional car trips. The emissions from additional car trips are based on data provided by Blacc on number and distance travelled by car to and from the Arena, assuming an opening year of 2023, and assuming that by 2050, all emissions from road vehicles will be zero, in line with the UK's net zero target³.

³ Calculation based on 1,288,913 additional car trips per year (120 events) to 1,937,876 additional car trips per year (180 events) with average travel distance of 73.9 km (provided by Blacc based on Manchester Arena visitor data). GHG emissions factors obtained from Department of Business Energy and Industrial Strategy and include a 3.7% per year reduction between 2023 and 2050 to account for decarbonisation of road transport by 2050.



Comparison of Estimated GHG Emissions Associated with the OVG Arena

- 3.6 The estimated lifetime GHG emissions from additional car trips are 3-5 times higher than the lifetime emissions from construction and energy, the latter of which are described as a moderate to minor adverse effect in the OVG Arena ES. Transport emissions therefore represent a predominant portion of the Arena's GHG emissions and are a source of emissions that the developer can actively influence and therefore the decision to exclude these from the GHG assessment is unjustified. Nationally transport emissions are significant and to meet the UK's 2050 target require concerted action by all parties.
- 3.7 If transport emissions were to be included in the GHG assessment for the OVG Arena, it is reasonable to conclude, based on the assessment criteria set out in the OVG Arena's ES, that the GHG emissions would be a **major to moderate adverse effect**. This is because they would result in a *“Medium-term net increase in GHG emissions resulting from the Proposed Development in construction and operation. Trending towards achieving net zero over the lifecycle of the Proposed Development, but not before 2038, as per the Manchester City Council commitments”* (see Table 15.2 in the OVG Arena ES)⁴.

Proposed Mitigation and Policy Compliance

- 3.8 In order to contribute towards Manchester City Council's target to achieve a net zero carbon city by 2038, the OVG Arena is reliant on a 15-year plan to remove natural gas heating (boilers) and cooking appliances from the Arena. Although the ES sets these out as mitigation opportunities (assuming, but not committing to replacement of these gas fired technologies by 2030), it falls short of providing a firm commitment to deliver these mitigations, or to clearly set out whether these are achievable or viable. As climate change is a cumulative issue (in other words the GHG emissions remain in the atmosphere contributing to climate change so the sooner emissions are removed the better), the

⁴ This describes the impact magnitude as 'moderate', which when combined with a 'high' sensitivity receptor leads to a major – moderate adverse effect as described in Table 15.3 of the OVG Arena ES.

Arena would benefit from delivering a scheme that is not reliant on gas-fired heating and cooking from day 1, but the assessment does not address the feasibility of this either.

- 3.9 Manchester City Council's Climate Change Framework 2020-2025 describes that *"We need to ensure that new developments in the city don't eat into our limited carbon budgets and add to the already significant retrofit challenge. This means that we need them to be built and operated to zero carbon standards as soon as possible... with a view to all new development needing to be zero carbon from 2023 at the latest"*, and the Draft Manchester Zero Carbon Framework 2020-2038 also makes clear that *"New buildings need to generate zero emissions"*. The OVG Arena, with reliance on gas-fired heating, does not comply with this emerging new policy.
- 3.10 In terms of transport, the OVG Arena provides a travel plan setting out measures to encourage sustainable transport; however, facilities to encourage private car use remain, including the proposed use of 3,000 parking spaces near the Arena (used for the Etihad Stadium) for events, when the Stadium is not in use. The travel plan suggests however that the Arena will function with only 500 designated parking spaces when the Etihad Stadium is concurrently in use; the intimation of the ability of the Arena to function with 1/6th of its overall parking capacity raises questions about why the Arena cannot operate every event with only 500 available parking spaces to discourage private car use and reduce the associated GHG emissions.
- 3.11 The transport analysis undertaken by Blacc has identified that during these events where the Etihad Stadium is in use, there is insufficient capacity in the public transport network to accommodate the volume of visitors to both venues, resulting in an estimate of up to 5,500 private cars that will look to use street parking or existing local car parks near to the venue. The Arena has proposed an extension to the existing Controlled Parking Zone (CPZ) in the area to try and discourage off-site parking, but Blacc's analysis of this measure identifies that the extension to the CPZ is already subject to planning agreements with Manchester City Council, so is not additional mitigation provided by the OVG Arena application.
- 3.12 Blacc's analysis identifies that the OVG Arena is poorly situated to service its own demand by sustainable travel, due to a distant proximity to the city centre making walking and cycling unattractive or due to poor or limited capacity public transport links; this will put a heavy reliance on private car use (or taxi drop-offs), which will result in a substantial challenge in reducing GHG emissions from transport to and from the Arena.

Summary and Conclusions

- 3.13 The OVG Arena proposal in its current form does not support Manchester City Council's commitment to achieving a net zero carbon city by 2038:
- the OVG Arena application has not included GHG emissions from transport in the climate change assessment provided to support the application; analysis shows GHG emissions

from private car trips will be 3-5 times higher than the lifetime emissions from construction and energy consumption;

- considering GHG emissions from transport, the effects of the OVG Arena in terms of GHG emissions are judged to be major-moderate adverse;
- the OVG Arena will provide access to 3,000 parking spaces encouraging the use of private car, which has substantially greater GHG emissions than mass transit modes (bus/tram/train) and walking or cycling;
- the Arena is heavily reliant on access by private car, and reducing car parking will only likely displace car trips to street parking, which will not reduce GHG emissions;
- the OVG Arena's reliance on gas-fired technology for heating and cooking appliances is not consistent with areas identified for urgent policy action described in Manchester City Council's Climate Change Framework 2020-2025 and Draft Manchester Zero Carbon Framework 2020-2038, and will require replacement with zero-carbon technology before 2038 in order to achieve net-zero on-site emissions, a clear commitment to which has not been provided in the application.

