From:	
Sent:	29 June 2021 17:06
То:	
Cc:	
Subject:	RE: Meeting this Thursday - Agenda
Attachments:	Proposed Noise Monitoring Locations.pdf

Thanks

In advance of the meeting please see below and attached for further details regarding the proposed noise assessment methodology to inform the discussion. If there are any queries in the meantime, please let me know.

#### Noise assessment methodology:

The assessment will consider the following:

- Impact of proposed noise sources on existing and proposed residential receptors
- Impact of development led traffic on existing and proposed residential receptors
- Impact of existing noise sources on proposed residential receptors
- Impact of construction noise on existing residential receptors

The proposed noise sources that will be considered as part of the assessment are:

- Arena
- New Red Dragon Centre
- Commercial uses within the mixed-use block to the west of the site

The nearest noise sensitive receptors are as follows:

- Schooner Way (north and west of the site)
- Halliard Court (north of the site)
- Galleon Way (east of the site)

There may be other receptors in the vicinity of the site, but these will be less impacted than those identified above.

A noise survey will be required as part of the assessment in order to determine existing and likely noise levels across the site and at surrounding receptors. The attached plan shows the location of proposed monitoring locations which are intended for use as follows:

- ML1 Background noise levels at existing receptors on Schooner way to the north of the site and at the proposed receptors in the north eastern corner of the site
- ML2 Background noise levels at existing receptors on Halliard Court
- ML3 Background noise levels at existing receptors on Schooner way to the west of the site
- ML4 Background noise levels at existing receptors on Schooner way to the west of the site and of proposed receptors within the mixed-use block in the west of the site
- ML5 Background noise levels at existing receptors on Galleon Way and at proposed receptors in the east of the site.
- ML6 Noise levels associated with the existing Red Dragon Centre for use to predict future noise levels associated with the proposed Red Dragon Centre

The measurements will be taken over at least a 24 hour period at 1 second intervals at each location with Fridays and weekend data capture where relevant. Measurements will include parameters relevant to each guidance document. Some further research will be undertaken in order to establish likely noise levels associated with the proposed arena.

The noise assessment would take into account current guidance including:

- Planning Policy Wales, Feb 2021;
- Planning Guidance (Wales), Technical Advice Note 11, Noise October 1997 (TAN);
- British Standard BS4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound (BS4142);
- British Standard 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings (BS8233:2014);
- BS5228:2009+A1:2014 Code of Practice for Noise and Vibration Control on Construction and Open Sites

   Part 1: Noise (BS5228-1), and Part 2: Vibration (BS5228-2);
- Noise Council Environmental Noise Control at Concerts; and
- Good Practice Guide on Control of Noise from Pubs and Clubs.

Mitigation measures will be recommended based on the results of the assessment and agreed with the Council.

Kind regards

in 🕑 👔 🐵	wardell armstrong
From: > Sent: 29 June 2021 13:59 To: Subject: RE: Meeting this Thursday - Agenda	
et el, I've been in contact with the council's noise and air qu Thursday meeting.	ality team and both have agreed that they will attend the
Regards,	
From: Sent: 29 June 2021 10:38	>

To:

Subject: RE: Meeting this Thursday - Agenda

**EXTERNAL:** This email originated from outside Cardiff Council, take care when clicking links.

**ALLANOL:** Daw'r e-bost hwn o'r tu allan i Gyngor Caerdydd, cymerwch ofal wrth glicio ar ddolenni.

Thank you for providing the air quality comments – I've passed these on to our air quality team and this will help inform discussions on Thursday if the air quality officer is available to attend.

As David mentioned, we'd also like to discuss the scope of the noise assessment if possible.

Kind regards



Sent: 28 June 2021 16:09 To:	From:	
To:	Sent: 28 June 2021 16:09	
	То:	

#### Subject: RE: Meeting this Thursday - Agenda

Good afternoon, I hope you and all at Arups are keeping well? Football, aside, the weekend went well, thank you. Your email is timely, below are the air quality Officers comments for the submitted pre-application that I received today. I have not yet received any comments on the scoping as yet. Sarah, I assume the comments below makes sense to you?

I'll see if the air quality officer is available for Thursday.

#### Thanks

See comments in accordance with the subject title planning application (PA/21/00051/MJR).

Due to the nature of the development, in terms of its purpose for commercial use and its location, via the submission of an appropriate air quality assessment (AQA) the applicant must give consideration to the potential impacts on ambient air quality and the magnitude/ risk of these potential air quality impacts on nearby local sensitive receptors and future occupants of the development. Consideration of air quality impacts should be examined through the development stage and when the development is complete, focusing on dust emissions during the construction phase of the development and potential exposure of existing nearby sensitive receptors/ future occupants to traffic derived Nitrogen Dioxide (NO<sub>2</sub>) & Particulate Matter (PM<sub>10</sub> & PM<sub>2.5</sub>) following completion of the development.

#### **Construction Phase**

Due to the close proximity of residential dwellings to the proposed development it is considered best practise to adopt the principles stipulated in IAQM "Guidance on the assessment of dust from demolition and construction." The guidance provides a risk based approach based on the potential dust emission magnitude of the site (small, medium or large) and the sensitivity of the area to dust effects. The importance of professional judgment is noted throughout the guidance. The guidance recommends that once the risk class of the site has identified, the appropriate level of mitigation measures are implemented to ensure that the construction activities have no significant impacts. In accordance with the guidance, Chapter 6, Step 1, Box 1 highlights certain screening criteria

which needs to be considered and if a development qualifies for an assessment. The document states "An assessment will normally be required where there is: a 'human receptor' within: - 350 m of the boundary of the site; or- 50 m of the route(s) used by construction vehicles on the public highway, up to 500 m from the site entrance(s)." It is apparent that there are residential dwellings located in close proximity to the proposed site, therefore satisfying the 'human receptor' criteria stipulated in the cited guidance and the need for a detailed air quality appraisal in the form of a dust assessment to be produced.

### **Operational**

With the use of detailed dispersion modelling the air quality assessment will examine projected air quality levels for traffic derived Nitrogen Dioxide (NO<sub>2</sub>) and Particulate Matter ( $PM_{10} \& PM_{2.5}$ ) at the proposed development site and at sensitive receptors situated in the surrounding area. To note it is not a mandatory requirement to monitor  $PM_{2.5}$  as part of Wales' local air quality management regime, however it is beneficial to scope this parameter into any assessment considered for robustness. The assessment shall consider the potential exposure of existing residents placed at nearby sensitive receptor locations and future occupants for the proposed year of opening. Should the assessment indicate that either existing residents or future occupants will be made vulnerable to poor air quality then appropriate mitigation measures must be proposed and approved by the Local Planning Authority. The applicant will be expected to provide evidence that any implemented mitigation measures would alleviate any poor air quality levels expected. These mitigation measures shall be implemented to the satisfaction of the Local Planning Authority prior to beneficial occupation.

With reference to the Local Air Quality Management (LAQM) Technical Guidance TG16, examples of where the air quality objectives should apply are detailed in Box 1.1. The guidance highlights that 24- hour mean & 1- hour mean averaging periods are to be investigated at all locations where the annual mean objective would apply, **together with hotels.** Therefore based on this criteria projected levels of traffic derived emissions (NO<sub>2</sub> & PM<sub>10</sub>) must be quantified. The Air Quality Assessment should look to focus on the national **1- hour mean objective for NO<sub>2</sub> (200µg/m3 not to be exceeded more than 18 times a year)** and **24- hour mean objective for PM<sub>10</sub> (50µg/m3 not to be exceeded more than 35 times a year)** at the various levels of the building. As part of this modelling it must be noted that due to the proposal's usage vehicle movements would be generated therefore I would expect to see the emissions generated via these additional movements encapsulated in any calculations. It is recommended that the applicant utilise the EPUK IAQM guidance "Land-Use Planning and Development Control: Planning for Air Quality, January 2017", specifically Table 6.2, to determine whether the number of vehicle movements generated by the development will pose a detrimental impact to the already poor air quality in the area and therefore add further concerns to public health. Following the outcome from this screening assessment it may be prevalent to consider the national annual mean objectives set for NO<sub>2</sub>, PM<sub>10</sub> & PM<sub>2.5</sub> at nearby existing sensitive receptors.

Furthermore, it is key that the applicant clearly states their intent with the future occupiers of the proposed hotel. If the applicant intends to allow permanent residency at the proposed hotel, in addition to the above monitoring the Air Quality Assessment must also look to provide and model projected **annual mean concentrations for NO<sub>2</sub> and PM<sub>10</sub> & PM<sub>2.5</sub>** for the hotel's future occupants. The national annual mean objectives set for NO<sub>2</sub> and PM<sub>10</sub> is  $40\mu$ g/m3. National annual mean objective set for PM<sub>2.5</sub> is 25 µg/m3.

Modelling the operational impacts expected with such a development would include the following scenarios;

-Baseline and verification;

-Projected year of opening without scheme in place (Baseline- Do Minimum (DM));

-Projected year of opening with scheme in place (Do-Something (DS)); and

-Future year projections beyond the Do-Something projection year which accounts for future growth and development;

Hope this helps. Any questions, please do not hesitate to contact me.

#### Subject: Meeting this Thursday - Agenda

**EXTERNAL:** This email originated from outside Cardiff Council, take care when clicking links. **ALLANOL:** Daw'r e-bost hwn o'r tu allan i Gyngor Caerdydd, cymerwch ofal wrth glicio ar ddolenni.

Hi

Hope you had good weekend?

We were wondering if it would be possible to use Thursdays meeting to focus on the scope of the air quality and noise assessments and also potentially the scope of the daylight, sunlight and overshadowing assessment. I appreciate this would require someone from your EHO / shared services team – do you think this would be possible?

If this is not possible, we can look to bring something forward and will look to get a programme of suggested meetings to you this week also.

Many thanks

Associate | Planning, Policy & Economics BSc(Hons), MSc, MRTPI, MIED

Arup 4 Pierhead Street Cardiff CF10 4QP United Kingdom d: +44 29 2076 9072 m: www.arup.com

Connect with me on <u>LinkedIn</u> Follow <u>@ArupUKMEA</u>



Electronic mail messages entering and leaving Arup business systems are scanned for viruses and acceptability of content.

From:	
Sent:	01 July 2021 13:15
To:	
Subject:	FW: Proposed Cardiff Arena and Travelodge development

I thought I had your email. see below my response from the last meeting in March, less was known and this was specific to noise sources from the site.

From: Sent: 24 March 2	2021 17:35		
To:			

Subject: RE: Proposed Cardiff Arena and Travelodge development

Good Afternoon,

Firstly apologies I was quiet at the previous meeting, alas tech problems meant I was running Teams from my phone, audio wasn't great and I couldn't view documents.

I've since reviewed all proposals and would split my concerns / thoughts below:

Cardiff Arena:

1. Entertainment noise:

This was the bulk of the discussion previously and the documents provided. I am content with the findings and parameters / limits quoted for low frequency noise -3dB below on the 63hz and 125hz, and overall entertainment noise being 10dB below background. This is arguably the easiest to achieve and model through façade design and internal acoustics of the performance room.

- 2. Plant/ Service yard /HGV movement
  - a. I agree to an upper limit of 5dB below background for the above noise sources however at present this only covers until 2300 hours. What will need to be considered is any of these that operate beyond these times and subject them to the same upper limit.
  - Plant Noise is there to be any plant operated beyond 2300 during clean down periods. I imagine air handling plants will need to operate 24/7 to run large commercial fridge freezers for cold store of food and drinks that subject to perish;
  - c. Service Yard similar to the above point much of the noise generated from the service yard will be beyond 2300 hours, whereby rigging crew will start dismantling as soon as the "closing show" is complete and transport this into HGVs, also touring artists will leave beyond this time running large vehicles, transporting equipment etc ready to move to another location / city. If we presume at this stage we would not restrict the hours of that service yard (which may be an option to control) we should consider noise from these activities with wider cumulative noise / 4142 assessment.

- 3. Is the over-all plans likely to cause a significant traffic flow access and will this impact existing residential receptors;
- 4. Pedestrian noise what is the noise anticipated for the 15000 attendees arriving on site, staying and leaving site:
  - a. Arrival: The most obvious routes I believe are walking down Lloyd George Avenue (LGA), through the pinch point be buildings O (residential) and M on the draft layout. Alternatively, arrival via train from Queen Street to Cardiff Bay, then again through the that pinch point. Via cars, and parking either in residential estates which I understand are not currently parking permitted, local car parks (Mermaid Quey, Q Park any new car parks) and then towards the arena;
  - During: where is it planned for queuing on the current draft layout, and what is the noise, can it be mitigated. Is there to be any external amenity use, for example for respite from a show or smoking;
  - c. After the show: for those arriving on foot / train, most will reverse the "arrival" route especially for those not used to the city, and I imagine disperse either back to the city centre along LGA, through the residential estate to the rear, or towards mermaid quey area. This will inevitably be beyond 2300 hours, where background noise has not yet been established. If you include that individuals are inebriated, noise levels rise akin to a busy match day in St Mary Street. Using St Mary Street as an example, any new residential planned has to model in that night time economy, which properties along LGA may not benefit.
  - d. Is there to be taxi rank planned to manage some of this pedestrian noise back into the city? Where may this be positioned, measures in place to limit noise from taxi rank e.g no idling policy, no beeping, max number of vehicles.
- 5. I've had a survey of the area, and the flats facing the Arena from building "O" are serviced with a number of Juliet balconies on the upper floors in place of windows. It may be that these serve living spaces, not bedrooms but this will need to established and how that may affect 4142 assessments, or WHO1995 community noise understandings of windows ajar.
- 6. Outside of noise, if there is to be any internal kitchens, there will need to be some discussion around odour management for external extraction.
- 7. I know you mentioned it is not yet known or planned, but in case there are any changes, I will need to know of any external artificial lighting on or around the building that may impact residential.

#### Hotel:

There is less risk here, as I agree with the points raised that it will be intended to meet a high standard anyway, but for clarity.

- 8. Can a high acoustic standard for the above noise sources, and low frequency noise be achieved in the hotelliers bedrooms;
- 9. Plant noise (as in point 2a);
- 10. Odour from cooking (as in point 6).

On point 9 I am happy to agree the same noise limits, 5 below background.

#### General

11. Given the number of noise sources (outside of pedestrian noise which is very discrete), I would need to know a cumulative impact from the whole development on existing residential.

12. Finally, during construction phase we need to consider impact from noise, dust, vibration – though this is typically conditioned if the plan is approved.

For me, issues around point 4 are to be the most contentious and is the most difficult to manage *after* permission is granted. This type of noise is outside the scope of Statutory Nuisance investigation, and local residents will want to know it is being managed affectively before any permission is granted.

I'm happy to meet afresh as the development progresses, (technical issues hopefully all done with) to go over these points, happy for you to use them as a pre-application or our stance on any EIA Scoping, and can provide further clarity if needs be.

Sian I recall mentioned the outside space on building A, which I understand will be subject to separate hybrid application and Lowri mentioned the use this will have PD Rights. If I am needed to comment upon wider plans let me know and I can give some direction.

Kind regards



From: Sent: 24 March 2021 13:58

To:

Subject: RE: Proposed Cardiff Arena and Travelodge development

Hi

Many thanks again for the time to meet with us to discuss our project, I just wanted to follow up to see if you have had a chance to review further the design note that Olly prepared or if you have any further questions that you wished to be answered prior to giving us your feedback.

Kind Regards

Associate Director, Project Management **Turner & Townsend** 4<sup>th</sup> floor, 180 St Vincent Street, Glasgow, G2 5SQ t: +44 (0) 141 221 5358 | http://www.turnerandtownsend.com **During the current health crisis, please contact me on my mobile number rather than the** office number if you wish to speak

Turner & Townsend Project Management Limited Registered Office: Low Hall, Calverley Lane, Horsforth, Leeds LS18 4GH, United Kingdom | Registered in England and Wales | Registration No: 2165592 From: \_\_\_\_\_\_\_ Sent: 11 March 2021 13:58 To: \_\_\_\_\_\_

Subject: RE: Proposed Cardiff Arena and Travelodge development

"Don't get caught out" - This email has come from an external source. Do not click on any links or open any attachments unless you are expecting them.

I can do 15<sup>th</sup> at 2pm with a slight juggle of something in my diary. I cannot make the 18<sup>th</sup>, sorry.

Regards,



From:	
Sent: 11 March 2021 12:22	
	200 12 1.0
	development

Hi

Thanks so much for getting back to us and apologies for the delay from me in now coming back to you!

I've checked diaries and wondered if you could do a Teams meeting at either of the following times; Monday 15<sup>th</sup> at 2pm Thursday 18<sup>th</sup> at 2pm

Our acoustician has prepared a note which we would like to talk through with you so I will circulate that with the meeting invite as well as a few slides about the development itself. That way you can have a look through in advance of the meeting and we can hopefully then address any questions you have.

There isn't yet a planning application number generated as we are in the early stages of dialogue with your planning team colleagues but have had a number of productive meetings so far with Simon Gilbert and Andrew Gregory. Lowrie Hughson-Smith has also recently been assigned as the planning officer for the project and we are just in the process of putting in place a PPA with them.

I should also mention that there is an aspiration to make a hybrid submission which not only includes the detailed application for the Arena itself but for a masterplan for the surrounding area. This element of the application would be for outline permission only and we are just working through trying to understand what that is likely to require in terms of both the level of detail to go into the application and into the EIA. I will add a drawing illustrating this and can talk you through that a bit further during the meeting to hopefully get some of your initial thoughts on what we might have to consider from a noise perspective.

Kind Regards

Associate Director, Project Management **Turner & Townsend** 4<sup>th</sup> floor, 180 St Vincent Street, Glasgow, G2 5SQ t: +44 (0) 141 221 5358 | \_\_\_\_\_\_\_ | <u>http://www.turnerandtownsend.com</u> *During the current health crisis, please contact me on my mobile number rather than the office number if you wish to speak* Turner & Townsend Project Management Limited Registered Office: Low Hall, Calverley Lane, Horsforth, Leeds LS18 4GH, United Kingdom | Registered in England and Wales | Registration No: 2165592

#### From:

Sent: 01 March 2021 16:26

To:

Subject: RE: Proposed Cardiff Arena and Travelodge development

"Don't get caught out" - This email has come from an external source. Do not click on any links or open any attachments unless you are expecting them.

Thanks

Heather – I'd welcome a Teams meeting to review. Do you have anything that could be sent in preparation for such meeting, or is there a planning application number already generated?

Thank you

From: Sent: 01 March 2021 15:04

To:

Subject: RE: Proposed Cardiff Arena and Travelodge development

Apologies for not replying to your original e-mail.

I think it would be worth meeting (on Teams?) so I can understand the scope of the project before giving advice. Would you like to arrange a virtual meeting and invite myself and Tom Jenkins ?

Regards,



## Shared Regulatory Services Gwasanaethau Rheoliadol a Rennir

Improving health and wellbeing @Safeguarding the vulnerable @Protecting the environmen
 Supporting the local economy SMaximising the use of resources

From:
To:
Subject: RE: Proposed Cardiff Arena and Travelodge development
Hi
I'm just following up on my email below to ask if someone can please come back to me?
Kind Regards
<u>http://www.turnerandtownsend.com</u>
<i>During the current health crisis, please contact me on my mobile number rather than the office number if you wish to speak</i>
Turner & Townsend Project Management Limited
Registered Office: Low Hall, Calverley Lane, Horsforth, Leeds LS18 4GH, United Kingdom   Registered in England and Wales   Registration No: 2165592
From:
To:
Subjects Drenesed Coudiff Arous and Travelades development

Subject: Proposed Cardiff Arena and Travelodge development

Hi

We have been passed your contact details by Simon Gilbert in the planning team. We are currently commencing the application process for the proposed new Arena and Travelodge to be located in the existing county hall car park site down in the Cardiff Bay area.

We are hoping to get some initial feedback from you in relation to the acoustic requirements for the project and more specifically the noise survey requirements. Vanguardia are the acousticians appointed for the project and have developed a design note which summarises our proposed approach based on the noise survey data which we currently have.

I'd be grateful if you could confirm if we could either submit this design note to you for your feedback and/or if you would like to set up a meeting with us to discuss the content or the overall project to give you any further background or information which you might need to consider and respond this.

Kind Regards

Associate Director, Project Management **Turner & Townsend** 4<sup>th</sup> floor, 180 St Vincent Street, Glasgow, G2 5SQ t: +44 (0) 141 221 5358

http://www.turnerandtownsend.com

# During the current health crisis, please contact me on my mobile number rather than the office number if you wish to speak

Turner & Townsend Project Management Limited

Registered Office: Low Hall, Calverley Lane, Horsforth, Leeds LS18 4GH, United Kingdom | Registered in England and Wales | Registration No: 2165592

Turner & Townsend Limited

For further information and registration details visit our website http://www.turnerandtownsend.com

This email and any attachments ("the email") is confidential and may also be privileged, is subject to copyright and may be read, copied and used only by the intended recipient. The recipient is responsible for virus checking this email. If you are not the intended recipient please immediately notify us, delete and do not use, disclose, distribute, copy, print or rely on this email or any part of it. Turner & Townsend does not accept any liability for any loss or damage from your receipt or use of this email.

Please consider the environment before printing this email.

Turner & Townsend Limited

For further information and registration details visit our website http://www.turnerandtownsend.com

This email and any attachments ("the email") is confidential and may also be privileged, is subject to copyright and may be read, copied and used only by the intended recipient. The recipient is responsible for virus checking this email. If you are not the intended recipient please immediately notify us, delete and do not use, disclose, distribute, copy, print or rely on this email or any part of it. Turner & Townsend does not accept any liability for any loss or damage from your receipt or use of this email.

Please consider the environment before printing this email.

Turner & Townsend Limited

For further information and registration details visit our website http://www.turnerandtownsend.com

This email and any attachments ("the email") is confidential and may also be privileged, is subject to copyright and may be read, copied and used only by the intended recipient. The recipient is responsible for virus checking this email. If you are not the intended recipient please immediately notify us, delete and do not use, disclose, distribute, copy, print or rely on this email or any part of it. Turner & Townsend does not accept any liability for any loss or damage from your receipt or use of this email.

Please consider the environment before printing this email.