INTER OFFICE	MEMO	North Lincolnshire Council www.northlincs.gov.uk

To: Matthew Gillyon, Development Management

From: Karen Robinson, Environmental Protection Team

Your Ref: PA/2025/815

Our Ref: PLU 009239

Subject: Planning permission to install a 3m wide tarmac track around the perimeter of the existing sports field to enable the testing of electric cars

Location: Baysgarth School, Barrow Road, Barton upon Humber

Date: 27 August 2025

Thank you for your consultation on the above application. I can confirm that this department has the following comments to make.

Noise

The following report has been submitted in support of the application:

- RSK Acoustics Ltd, Noise Impact Assessment, Baysgarth School – Test Race Track Report Reference: 2063166-RSKA-RP-001-(01) dated 12 June 2025

The development site is located within the Baysgarth School grounds. The site is bounded by residential properties along Barrow Road to the north, residential properties to the west and south, and properties along Meadow Drive to the east.

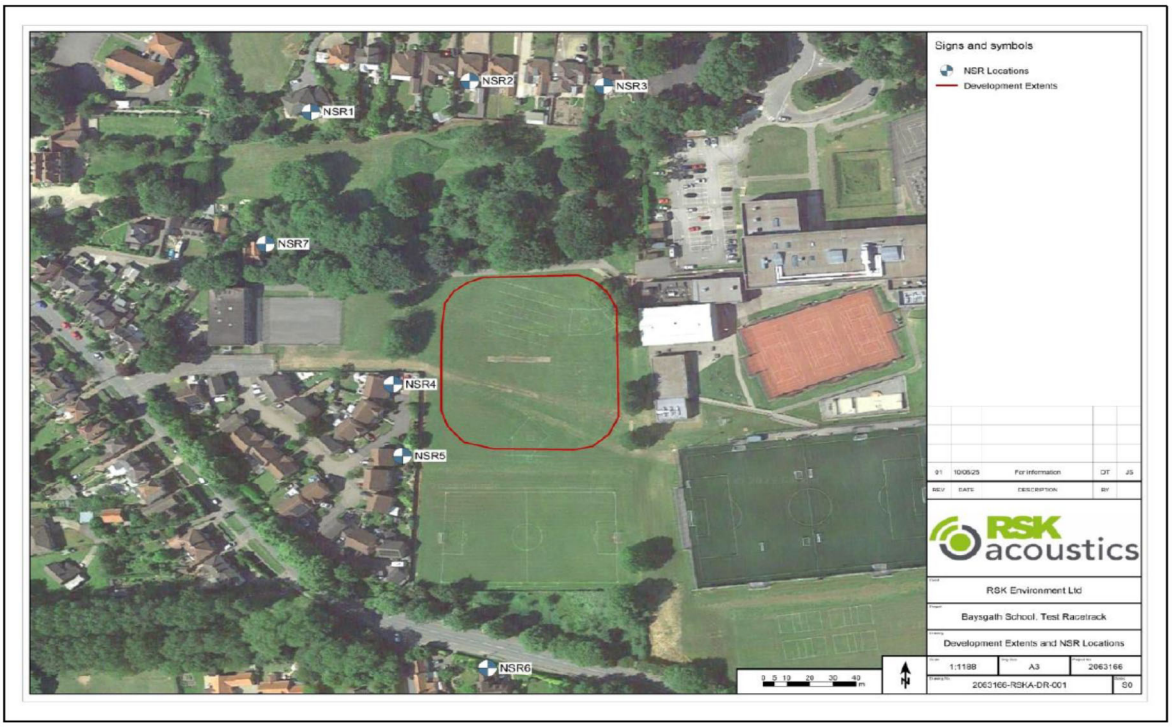
The application comprises a three-metre-wide track which will encircle part of the school field, with metal palisade fencing planned at the boundary to the northwest section and wooden boundary fencing to the southwest section, where the nearest residential properties along Nightingale Road are located.

It is proposed that the operation of the test track will be during daytime hours only, and only one electric kit car will be operational on the test track at any one time.

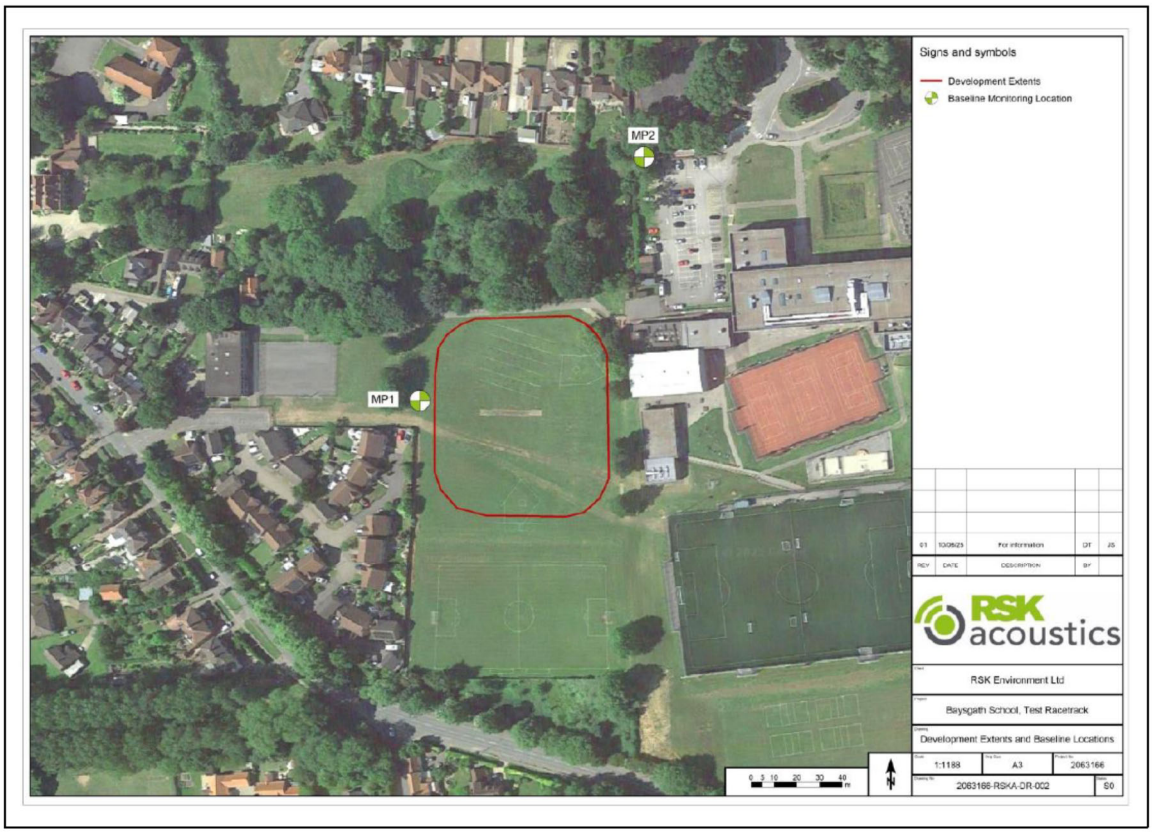
It was determined that the greatest noise emissions were likely due to pass-by noise from the internal components of the electric car and tyre/surface noise interaction when the cars are in operation around the track, and additionally noise generated when the cars are idle (in neutral) with full throttle capacity.

The ontime events expected for the race kit cars on the test track and the frequency of use is unknown. However, it is assumed the test track will not be in constant operation.

The noise report was carried out to assess the impact of the noise from the operational race track on noise sensitive receptors (NSR), shown below:



The noise monitoring comprised of an unattended baseline noise survey undertaken for six days between 28 March 2025 to 03 April 2025. Two measurement positions were chosen as representative of the nearest NSRs, UL1 within the school grounds at the rear of residents on Nightingale Close and UL2 at the rear of residents on Barrow Road. Monitoring locations shown below:



The representative background levels are provided for daytime only, using BS4142 methodology these are provided below:

Receptor	Measurement location	Representative Background Sound Level
		Daytime dB $L_{A90,1h}$ (0700-2300)
NSR1	UL2	40
NSR2		
NSR3		
NSR4	UL1	37
NSR5		
NSR6		
NSR7		

Table 10 Representative Background Sound Levels at NSRs

To capture the noise data from a race kit car, an attended noise survey was undertaken on 5 June 2025 where measurements were recorded to capture the noise emissions of a typical race kit car in action and when idling at full throttle capacity.

Monitoring was undertaken within the school's tennis courts where the current cars are tested. The surface of the tennis court arena is composed of porous asphalt with similar properties to the surface of the proposed test track. The kit cars use tread-less wheels, reducing tyre/surface noise interaction. The kit cars average 20-30mph.

To capture the pass-by noise from the operation of the car, several pass-by events were needed to ensure the car could be recorded reaching a typical average speed to that expected on the test track. The highest speed capable at the time was reached.

The second set of measurements were to capture the noise of the car in an idle state with full throttle capacity simulating a typical starting situation before a test run. An average value was determined for four positions.

During a typical race day, the rear mounting engine compartment will be covered, during monitoring the engine compartment was exposed, resulting in potentially higher noise levels. It can be assumed therefore that lower noise levels may be expected.

Based on the information provided from the survey, research and modelling, no acoustic corrections are deemed necessary when assessing the proposed test track development.

The predicted noise levels likely to be generated during the operation and full throttle idling scenarios of the kit car have been calculated using a noise prediction model.

An assessment of the predicted rating level against the representative background sound level at the closest NSR's when the car is in action is summarised below:

NSR	Background Sound Level, dB $L_{A90,1h}$	Specific Sound Level, dB $L_{AS,1h}$	Character Corrections, dB	Rating Level, dB $L_{Ar,Tr}$	Excess of Rating Level Over Background, dB
NSR1	40	22	0	22	-18
NSR2	40	23	0	23	-17
NSR3	40	23	0	23	-17
NSR4	37	35	0	35	-2
NSR5	37	33	0	33	-4
NSR6	37	22	0	22	-18
NSR7	37	25	0	25	-12

Table 12 Assessment of Daytime Noise Impact – (BS 4142), F24 Kit Car in Operation

An assessment of the predicted rating level against the representative background sound level at the closest NSR's when the car is idle with full throttle is summarised below:

NSR	Background Sound Level, dB $L_{A90,1h}$	Specific Sound Level, dB $L_{AS,1h}$	Character Corrections, dB	Rating Level, dB $L_{Ar,Tr}$	Excess of Rating Level Over Background, dB
NSR1	40	18	0	18	-22
NSR2	40	19	0	19	-21
NSR3	40	19	0	19	-21
NSR4	37	31	0	31	-6
NSR5	37	29	0	29	-8
NSR6	37	18	0	18	-19
NSR7	37	21	0	21	-16

Table 13 Assessment of Daytime Noise Impact – (BS 4142), F24 Kit Car, Idle, Full Throttle

The results from the above tables indicate that the rating level of the noise source for both scenarios is below the background noise level at all NSR's used for assessment. This indicates the development will have a low impact according to BS4142:2014.

The noise model has not considered any screening effects between source and receiver, including the fencing planned along the western boundary of the test track which would further reduce noise levels.

This department has the following comments to make:

- No details of the proposed wooden boundary fence have been included in the assessment. Due to the proximity to residents on the western boundary, this department recommends the inclusion of an acoustic fence at this location to ensure residents are not impacted by activities associated with the track, which may include human activities in addition to the kit cars assessed.

This department therefore recommends the inclusion of the following conditions on any permission granted:

Conditions

1. The track shall be operational during daytime hours only.

2. Only one electric kit car will be operational on the test track at any one time.

3. Noise Management Scheme

   The use of the site shall not begin until a written scheme for noise management has been submitted to and approved in writing by the local planning authority. The noise management scheme shall include the following:

   - Days and Hours of operation.
   - Proposed users (organisations) of the facility.
   - Details of activities to take place on site.
   - Plant and equipment to be used on site.

- Likely noise levels associated with site activities, plant and equipment.
- Noise mitigation measures to be employed and the resulting predicted level of noise at sensitive locations.

The operation all site activities shall take place in accordance with the approved noise management scheme. No changes shall be made to the approved noise management scheme unless agreed in writing by the local planning authority.

Reason: For the protection of residential amenity and public

4. Prior to the operation of the development hereby permitted, an acoustic barrier shall be erected on the west boundary of the test racetrack hereby permitted. A detailed technical specification of the acoustic barrier or wall shall be submitted to and approved in writing by the local planning authority. The specification shall include details of the location, size and design of the barrier, with predicted noise reduction over the frequency spectrum. The approved acoustic barrier or wall shall be installed prior to commencement of the use of this site and shall be maintained thereafter.

   Reason: For the protection of residential amenity

5. Construction operations shall be limited to the following hours:

   - 08:00 to 18:00hrs Monday to Friday.
   - 08:00 to 13:00hrs Saturday.
   - No construction operations on Sundays or public holidays.
   - HGV movements shall not be permitted outside these hours during the construction phase without prior written approval from the Local Planning Authority.
   - Installation of equipment on site shall not be permitted outside these hours without prior written approval from the Local Planning Authority."

   Reason: For the protection of residential amenity.