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SSD8378

Ms Aditi Coomar
Department of Planning and Environment
GPO BOX 39
SYDNEY NSW 2001

Dear Ms Coomar

SSD 8378 – GLEDSWOOD HILLS PUBLIC SCHOOL
ENVIRONMENTAL IMPACT STATEMENT (EIS)

I am writing to you in reply to the invitation to the Environment Protection Authority (EPA) to make a submission concerning the above project EIS.

The EPA requests that this submission be read in conjunction with its letter dated 19 April 2017 in respect of the draft SEARs for the project.

The EPA emphasises that it does not review or endorse environmental management plans or the like for reasons of maintaining regulatory 'arm's length'. Please note that the EPA has not reviewed any environmental management plan forming part of or referred to in the EIS.

Please find attached the EPA's detailed comments (Attachment A). The EPA has identified the following site specific concerns based on the project information available on the Department of Planning and Environment major projects web site:

(a) the need for a detailed assessment of potential site contamination, including information about groundwater and a detailed assessment of the footprint and surrounds of existing buildings following their demolition;

(b) construction phase noise and vibration impacts (including recommended standard construction hours and intra-day respite periods for highly intrusive noise generating work) on noise sensitive receivers such as surrounding residences;

(c) construction phase dust control and management;

(e) construction phase erosion and sediment control and management;

(f) operational noise impacts on noise sensitive receivers (especially surrounding residences on adjoining and adjacent holdings) arising from operational activities such as public address/school bell systems, community use of school facilities, waste collection services and mechanical services (especially air conditioning plant);

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(g) the need to assess feasible and reasonable noise mitigation and management measures (including time restrictions on the use of the facilities proposed to be available for community use) to minimise operational noise impacts on surrounding residences;

(h) practical opportunities to implement water sensitive urban design principles, including stormwater re-use; and

(i) practical opportunities to minimise consumption of energy generated from non-renewable sources and to implement effective energy efficiency measures.

Figure 4 of the EIS indicates that the development would be surrounded by multi-storey residential and mixed use residential to the west (i.e. opposite side of road MC07) and to the south and south west (i.e. opposite side of The Hermitage Way). The EPA recommends that the proponent adopt all feasible and reasonable noise mitigation and management measures as may be necessary to ensure noise emissions do not interfere unreasonably with the comfort or repose of any person not on the development site.

Should you require clarification of any of the above please contact John Goodwin on 9995 6838.

Yours sincerely

SARAH THOMSON
Unit Head, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A

Contact officer: JOHN GOODWIN
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ATTACHMENT A

ENVIRONMENT PROTECTION AUTHORITY COMMENTS

SSD 8378 GLEDSWOOD HILLS PUBLIC SCHOOL

1. General

The EPA considers that the project comprises distinct phases of construction and operation and has set out its comments on that basis.

The EPA notes the proximity of surrounding residences which may be adversely affected by noise impacts during demolition, site preparation, construction and operation phases of the project.

2. Construction phase

The EPA anticipates that site establishment, bulk earthworks, construction and construction-related activities will be undertaken in an environmentally responsible manner with emphasis on –

- compliance with recommended standard construction hours,
- intra-day respite periods from high noise generating construction activities (including jack hammering, rock breaking, pile boring or driving, saw cutting),
- feasible and reasonable noise and vibration minimisation and mitigation,
- effective dust control and management,
- erosion and sediment control, and
- waste handling and management, particularly concrete waste and rinse water.

2.1 Site contamination

Appendix 8 of the EIS comprises a site audit statement (SAS) prepared by Dr Ian Swane on 5 October 2017. The SAS certifies suitability of the site for various uses, including day care centre, pre-school, and primary school. However, the SAS comments amongst other things that:

> it only applies to the time when additional remediation and validation work was undertaken at the site in August 2017,
>
> it does not apply to soils that may have been subsequently imported to the site, and
>
> fill should not be imported to the site that does not meet NSW EPA standards for Residential A land use.

Section 6.4.5 of the EIS states that the consent authority can be satisfied that the land is suitable for the purposes of a primary school, pursuant to Clause 7 of SEPP 55 because of the Site Audit Statement. However, The EPA is unclear whether fill material may have been imported to the development site since the remediation/validation work in August 2017.

Recommendation 1

The proponent be required –

(a) to confirm whether fill material has been imported to the development since site the remediation of the site in August 2017, and

(b) to provide evidence that any fill material imported to the development since the remediation of the site in August 2017 meets standards referred to in the Site Audit Statement, and

(c) (in respect of any fill material imported to the development since the remediation of the site in August 2017) to submit the evidence referred to in preceding paragraph (b) to the site auditor for review and certification of whether the development site is still suitable for the proposed uses of a day care centre, pre-school, and primary school.

Recommendation 2

The proponent be required:–

(a) (prior to commencing any work on the development site) to prepare and implement a procedure for identifying and dealing with unexpected finds of site contamination (including asbestos containing materials) and that that procedure include details of who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved;

(b) to ensure the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site or adjoining site so as to result in significant contamination as any such change would render the proponent the 'person responsible' for the contamination under section 6(2) of the Contaminated Land Management Act; and

(c) to ensure that it notifies the EPA under section 60 of the Contaminated Land Management Act of any contamination encountered on the development site which meets the triggers in the EPA's Guidelines for the Duty to Report Contamination.

2.2 <u>noise and vibration</u>

The EPA anticipates that site preparation (including tree clearing), bulk earthworks, construction and construction-related activities are likely to have significant noise and vibration impacts on surrounding residences.

2.2.1 general construction hours

The EPA emphasises that site preparation, bulk earthworks, construction and construction-related activities should be undertaken during the recommended standard construction hours.

Recommendation 3

The proponent be required to ensure that as far as practicable all demolition, site preparation, bulk earthworks, construction and construction-related activities likely to be audible at any noise sensitive receivers such as surrounding residences are only undertaken during the standard construction hours, being -

(a) 7.00 am to 6.00 pm Monday to Friday,

(b) 8.00 am to 1.00 pm Saturday, and

(c) no work on Sundays or gazetted public holidays.

2.2.2 intra-day respite periods

The EPA anticipates that those site preparation, bulk earthworks, construction and construction-related activities generating noise with particularly annoying or intrusive characteristics (such as those identified as particularly annoying in section 4.5 of the Interim Construction Noise Guideline) would be subject to a regime of intra-day respite periods where –

(a) they are only undertaken after 8.00 am,

(b) they are only undertaken over continuous periods not exceeding 3 hours with at least a 1 hour respite every three hours, and.

(c) 'continuous' means any period during which there is less than an uninterrupted 60 minute respite between temporarily halting and recommencing any of the intrusive and annoying work referred to in Interim Construction Noise Guideline section 4.5

The EPA emphasises that intra-day respite periods are not proposed to apply to those demolition, site preparation, bulk earthworks, construction and construction-related activities that do not generate noise with particularly annoying or intrusive characteristics.

Recommendation 4

The proponent be required to schedule intra-day 'respite periods' for construction activities identified in section 4.5 of the Interim Construction Noise Guideline as being particularly annoying to noise sensitive receivers, including surrounding residents.

2.2.3 idling and queuing construction vehicles

The EPA is aware from previous major infrastructure projects that community concerns are likely to arise from noise impacts associated with the early arrival and idling of construction vehicles (including concrete agitator trucks) at the development site and in the residential precincts surrounding that site.

Recommendation 5

The proponent be required to ensure construction vehicles (including concrete agitator trucks) involved in site preparation, bulk earthworks, construction and construction-related activities do not arrive at the project site or in surrounding residential precincts outside approved construction hours.

2.2.4 reversing and movement alarms

The EPA has identified the noise from 'beeper' type plant movement alarms to be particularly intrusive and is aware of feasible and reasonable alternatives. Transport for NSW (nee Transport Construction Authority), Barangaroo Delivery Authority/Lend Lease and Leighton Contractors (M2 Upgrade project) have undertaken safety risk assessments of alternatives to the traditional 'beeper' alarms. Each determined that adoption of 'quacker' type movement/reversing alarms instead of traditional beepers

on all plant and vehicles would not only maintain a safe workplace but also deliver improved outcomes of reduced noise impacts on surrounding residents.

Interim Construction Noise Guideline Appendix C provides additional background material on this issue.

Recommendation 6

The proponent be required to consider undertaking a safety risk assessment of site preparation, bulk earth works, construction and construction-related activities to determine whether it is practicable to use audible movement alarms of a type that would minimise the noise impact on surrounding noise sensitive receivers, without compromising safety.

2.4 Dust control and management

The EPA considers dust control and management to be an important air quality issue during site preparation, bulk earthworks and subsequent construction.

Recommendation 7

The proponent be required to:

(a) minimise dust emissions on the site, and

(b) prevent dust emissions from the site.

2.5 Sediment control

Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective sediment control on construction sites. The proponent should implement all such feasible and reasonable measures as may be necessary to prevent water pollution in the course of developing the site.

The EPA emphasises the importance of –

(a) not commencing demolition, site preparation, bulk earthworks, construction and construction-related activities until appropriate and effective sediment controls are in place, and

(b) daily inspection of sediment controls which is fundamental to ensuring timely maintenance and repair of those controls.

2.6 Waste control and management (general)

The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

Avoidance including action to reduce the amount of waste generated by households, industry and all levels of government

Resource recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources

Disposal including management of all disposal options in the most environmentally responsible manner.

All wastes generated during the project must be properly assessed, classified and managed in accordance with the EPA's guidelines to ensure proper treatment, transport and disposal at a landfill legally able to accept those wastes.

The EPA further anticipates that, without proper site controls and management, mud and waste may be tracked off the site during the course of the project.

Recommendation 8

The proponent be required to ensure that:

(1) all waste generated during the project is assessed, classified and managed in accordance with the "*Waste Classification Guidelines Part 1: Classifying Waste*" (Department of Environment Climate Change and Water, December 2009);

(2) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to prevent any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and

(3) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the site, is removed before the vehicle, trailer or motorised plant leaves the premises.

2.7 Waste control and management (concrete and concrete rinse water)

The EPA anticipates that during the course of the project concrete deliveries and pumping are likely to generate significant volumes of concrete waste and rinse water. The proponent should ensure that concrete waste and rinse water is not disposed of on the project site and instead that –

(a) waste concrete is either returned in the agitator trucks to the supplier or directed to a dedicated watertight skip protected from the entry of precipitation, and

(b) concrete rinse water is directed to a dedicated watertight skip protected from the entry of precipitation or a suitable water treatment plant.

Recommendation 9

The proponent be required to ensure that concrete waste and rinse water are

(a) not disposed of on the development site, and

(b) prevented from entering waters, including any natural or artificial watercourse.

3. Operational phase

The EPA considers that environmental impacts that arise once the development is operational should be able to be largely averted by responsible environmental management practices, particularly about:

(a) feasible and reasonable noise mitigation measures;

(b) waste management in accordance with the waste management hierarchy;

(c) water sensitive urban design; and

(d) energy conservation and efficiency.

3.1 Noise and vibration impacts

The EPA anticipates the proposed development (especially out of hours use of school facilities by external parties) may have significant operational noise impacts on nearby noise sensitive receiver locations, especially nearby residences.

The EPA notes with concern the proximity of the existing and proposed residences and is aware from long experience of the need for appropriate operational noise mitigation and management measures, particularly regarding:

(a) the nature of and times during which school facilities are made available for community use;

(b) the design and operation of the school public address/bell system;

(c) the design and location of waste storage facilities;

(d) time restrictions on waste collection services;

(e) design, selection and operation of mechanical ventilation plant and equipment; and

(f) time restrictions on grounds maintenance using powered equipment (e.g. leaf blowers, brush cutters and lawn mowers).

Background noise measurement

The EPA emphasises that properly establishing background noise levels in accordance with guidance material in the New South Wales Industrial Noise Policy (INP) is fundamental to a consistent approach to the quantitative assessment of noise impacts of development.

The NSW INP specifies that at least a ‘week’s worth’ of monitoring data is required to establish background noise levels and that noise levels measured during rainfall should be excluded when deriving those background levels. However, the EPA notes that graphic representation of the ‘ambient noise survey’ EIS Appendix 23 appears to be inconsistent with the INP guidance with background noise levels only measured over approximately 2 days.

Nevertheless, the EPA considers in this instance that the rating background noise levels derived are acceptable for the locality.

Out of hours’ community use of school facilities

The EPA is aware of government policy to encourage out of hours community use of school facilities provided that use does not cause noise emissions that interfere unreasonably with the comfort or repose of persons not on the premises.

The EPA considers that, in relation to the school hall, noise from normal school activities in class hours would not be acoustically significant. However, the use of the school hall and other facilities for events, particularly outside school hours, has the potential to adversely impact on residences.

The EPA emphasises that proposed community use of school facilities (especially the hall and outdoor sports courts) outside normal school hours needs to be carefully managed to ensure noise impacts on nearby residences are minimised. Noise compliance monitoring of representative activities may demonstrate that either less or more restrictive noise mitigation and management measures are warranted.

Recommendation 10

The proponent be required to ensure that the school hall and outdoor sports courts are not made available for community use –

(i) during week day mornings,

(ii) later than 6.00 pm on week nights,

(iii) other than between the hours of 8.00 am and 6.00 pm on Saturdays, and

(iv) during Sundays and public holidays.

Recommendation 11

The proponent be required to –

(a) undertake comprehensive noise compliance monitoring of representative uses of the 'futsal' fields and outdoor sports courts and associated facilities (e.g. parking) outside school hours to demonstrate that the level, nature, quality and character of noise emitted by those uses and the time at which and frequency of those uses would not interfere unreasonably with or be likely to interfere unreasonably with the comfort or repose of persons not on the development site, especially the occupants of nearby residences.

(b) submit a detailed noise compliance monitoring report with noise measurements reported against relevant noise criteria and the outcomes of appropriate community consultation together with detailed recommendations concerning any additional feasible and reasonable noise mitigation and management measures, including further or more relaxed restrictions on the times at which and the frequency of each type of use of the 'futsal' fields and outdoor sports courts and associated facilities (e.g. parking) outside school hours.

(c) ensure that noise compliance monitoring referred to in paragraph (a) above, would include quantitative noise impact assessment to address noise emissions arising from amongst other things –

- audience/spectator noise,
- referee whistle noise,
- training sessions as well as sporting events,
- any amplified sound during sporting events and any associated training sessions, and
- post-event audience/spectator noise, including vehicle door slamming and departure noise.

<u>Mechanical plant and equipment</u>

Section 4.6 to EIS Appendix 23 states that details of mechanical services, plant and equipment are not yet available and the EIS does not appear to show the location of plant and equipment.

The EPA considers that the suggestion in section 4.6 to EIS Appendix 23 that "... mechanical plant will typically operate during day time hours, Monday to Friday." is inconsistent with the likelihood of regular community use of school facilities outside normal school hours, including during the evening period and on weekends.

Recommendation 12

The proponent be required to:

(a) provide a comprehensive quantitative assessment of operational noise impacts on surrounding noise sensitive receivers, especially existing and proposed residences;

(b) ensure mechanical plant and equipment installed on the development site does not generate noise that –

  (i) exceeds 5 dBA above the rating background noise level (day, evening and night) measured at the western boundary of the development site, and

  (ii) exhibits tonal or other annoying characteristics.

<u>Public address and school bell system</u>

The EPA notes numerous reports of community concern arising from inadequate design and installation as well as inappropriate use of school public address and bell systems and considers that appropriate design, installation and operation of those systems can both –

- meet the proponent's objectives of proper administration of the school and ensuring the safety of students, staff and visitors, and
- avoid interfering unreasonably with the comfort and repose of occupants of nearby residences.

Recommendation 13

The proponent be required to design, install and operate the school public address/bell system to implement all such other measures as may be necessary to ensure use of that system does not interfere unreasonably with the comfort and repose of occupants of nearby residences.

<u>Waste collection services</u>

The EPA notes numerous reports of community concern arising from waste collection services undertaken at schools and especially during evening and night times.

Recommendation 14

The proponent be required ensure waste collection services are not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.

<u>Grounds maintenance using powered equipment</u>

The EPA notes numerous reports of community concern arising from grounds maintenance involving the use of powered equipment (example: leaf blowers, lawn mowers, brush cutters) at schools during early morning and evening periods as well as on weekends and public holidays.

Recommendation 15

The proponent be required ensure grounds maintenance involving the use of powered equipment is not undertaken outside the hours of 7.30 am to 6.00 pm Monday to Friday.

3.2 Waste management

The proponent should manage waste in accordance with the waste management hierarchy. The waste hierarchy, established under the Waste Avoidance and Resource Recovery Act 2001, is one that ensures that resource management options are considered against the following priorities:

Avoidance including action to reduce the amount of waste generated by households, industry and all levels of government

Resource recovery including reuse, recycling, reprocessing and energy recovery, consistent with the most efficient use of the recovered resources

Disposal including management of all disposal options in the most environmentally responsible manner.

Recommendation 16

The proponent be required to identify and implement feasible and reasonable opportunities for the re-use and recycling of waste, including food waste.

3.3 Water sensitive urban design and energy conservation and efficiency

The EPA acknowledges that EIS Appendix 24 comprises an environmentally sustainable development report that proposes –

(a) a range of water sensitive urban design measures, including –

  (i) rainwater harvesting and re-use, and
  (ii) water efficient fixtures; and

(b) a range of measures to maximise energy efficiency and minimise energy consumption, including –

  (i) natural ventilation and lighting of all classrooms, and
  (ii) installation of solar photovoltaic arrays
