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Mr Jason Maslen
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SYDNEY NSW 2001

Email: Jason.Maslen@planning.nsw.gov.au

Dear Mr Maslen

SSD 9809 – NEW MARSDEN PARK PUBLIC SCHOOL – ENVIRONMENTAL IMPACT STATEMENT

I am writing to you in reply to your invitation to the Environment Protection Authority (EPA) to provide advice on the Environmental Impact Statement (EIS), including recommendations for Conditions of Approval for the above proposal.

The EPA understands that the development includes two construction stages (a temporary school and a permanent school) and includes a multipurpose hall, multi-purpose sporting facilities and a 6,200m^2 area reserved for 'alternate use'. Further, that the subject site is currently vacant and contains no buildings or structures. Development in the immediate surrounding area includes proposed future collector road (north and east), medium and low density residential, and a local park.

The EPA has reviewed the EIS provided by the Department of Planning, Industry and Environment (DPIE) and provides comments in **Attachment A**. The EPA requests that this submission be read in conjunction with its letter (EPA number DOC18/973695-2) in respect of the draft Secretary's environmental assessment requirements (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'. As such, the EPA has not reviewed any environmental management plan forming part of or referred to in the EIS.

The EPA has identified the following site-specific concerns based on the EIS:

1. the need for an unexpected finds procedure to identify and deal with unexpected site contamination;

2. construction phase noise and vibration impacts (including recommended standard construction hours) on noise sensitive receivers such as surrounding residences;

3. 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);

Should you require clarification of any of the above, please contact Aleesha Rodgers on 8837 6398.

Yours sincerely

SARAH THOMSON
Unit Head, Metropolitan Infrastructure
Environment Protection Authority

ATTACHMENT A

– ENVIRONMENT PROTECTION AUTHORITY COMMENTS –

MARSDEN PARK PUBLIC SCHOOL

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

1.0 Construction Phase

The EPA expects that all construction and construction related activities will be undertaken in an environmentally responsible manner with emphasis on:

- site contamination,
- compliance with recommended standard construction hours,
- intra date respite periods,
- feasible and reasonable noise vibration and mitigation;
- waste handling and management;
- effective dust control and management; and
- erosion and sediment control.

1.1 Site Contamination

EIS Appendix Q *Detailed Site (Contamination) Investigation* indicates that the site has an agricultural history and has been progressively filled with Virgin Excavated Natural Material since 2015. Results of chemical testing of soil and groundwater generally indicated levels below the site acceptance criteria with the exception of some heavy metals that exceeded groundwater criteria.

The potential remains for isolated pockets of contamination to be present in untested areas of the site. To appropriately manage unexpected potential contamination issues encountered during development works, the EPA recommends the preparation and implementation of an unexpected find protocol (UFP) during the development at this site.

Recommendations

1. The proponent be required to ensure that prior to commencing any work on the development site, an appropriate procedure is prepared and implemented:
    a) to identify and deal with unexpected contamination, asbestos and other unexpected finds; and
    b) to identify who will be responsible for implementing the unexpected finds procedure and the roles and responsibilities of all parties involved.
2. If unexpected contamination is found, the proponent must:
    a) prepare a remediation action plan; and
    b) if remediation is required, the proponent should engage an EPA accredited site auditor to prepare a section B site audit statement that confirms that the land can be made suitable for the proposed use; and
    c) The proponent must adhere to the management measures accepted by the auditor.

3. The proponent be required to ensure that the processes outlined in State Environmental Planning Policy 55 - Remediation of Land (SEPP55) be followed in order to assess the suitability of the land and any remediation required in relation to the proposed use.
4. The proponent be required to ensure the proposed development does not result in a change of risk in relation to any pre-existing contamination on the site so as to result in significant contamination [note that this would render the proponent the 'person responsible' for the contamination under section 6(2) of *Contaminated Land Management Act 1997* (CLM Act)].
5. The proponent be required to notify the EPA (under section 60 of the CLM Act) should any contamination of the development site be identified which meets the triggers in the NSW EPA (2015) *Guidelines for the Duty to Report Contamination.*

   The EPA recommends the use of "certified consultants". Please note that the EPA's Contaminated Land Consultant Certification Policy, Version 2, November 2017, (http://www.epa.nsw.gov.au/-/media/epa/corporate-site/resources/clm/18520-contaminated-landconsultant-certification-policy.pdf?la=en) supports the development and implementation of nationally consistent certification schemes in Australia, and encourages the use of certified consultants by the community and industry. Note that the EPA requires all reports submitted to the EPA to comply with the requirements of the CLM Act to be prepared, or reviewed and approved, by a certified consultant.

1.2 Noise and Vibration

The EPA anticipates that bulk earthworks, construction and construction related activities are likely to have significant noise and vibration impacts on adjoining and surrounding residences.

Recommendation
The proponent be required to adopt the noise mitigation described in Appendix H (Noise Vibration Impact Assessment (NVIA)) Recommendations in section 9.8.

1.2.1 General construction hours and intra-day respite

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

The EPA further emphasises that the proponent is a 'public authority' within the meaning of the *Protection of the Environment Administration Act 1991*. Further, that the EPA has a general responsibility under that Act for:

a) ensuring that the best practicable measures are taken for environment protection in accordance with the environment protection legislation and other legislation, and
b) coordinating the activities of all public authorities in respect of those measures.

Table 1 to the EPA's (2009) Interim Construction Noise Guideline (ICNG) clearly identifies the best practicable measures in respect of the recommended standard hours of construction (in the absence of strong justification for alternative hours in the particular case). EIS section 4.7 under the heading 'Construction Work Hours' proposes shortened week day construction hours (7:00 am to 5:00 pm) and extended Saturday construction hours (7:00 am to 1:00 pm). No justification is provided for the extended hours.

Furthermore, 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 ICNG) 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 section 4.5 of ICNG.

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
The proponent be required to ensure that construction activities associated with the project must only be undertaken during the following construction hours:

a) 7:00 am to 6:00 pm Mondays to Fridays, inclusive;
b) 8:00 am to 1:00 pm Saturdays, and
c) no work on Sundays or gazetted public holidays.

The EPA recommends that the proponent should consider whether intra-day ‘respite periods’ should be scheduled.

1.2.2 Idling and queuing construction vehicles

The EPA is aware from previous 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
The proponent be required to:

1) ensure construction vehicles (including concrete agitator trucks) involved in demolition, 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) where feasible, ensure construction vehicles turn off their engines during idling to reduce noise impacts.
3) comply with quiet work methods/technologies including those described in NVIA (Appendix H) section 9.8.

1.2.3 Reversing and movement alarms

The EPA acknowledges that the NVIA (Appendix H) section 9.8 recommends construction vehicles including trucks and bobcats to use a non-tonal reversing beacon (subject to OH&S requirements).

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, Barangaroo Delivery Authority/Lend Lease and Leighton Contractors 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. Appendix C of the ICNG provides additional background material on this issue.

Recommendation
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.

1.3 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
The proponent be required to ensure that:

1) all waste generated during the project is assessed, classified and managed in accordance with the EPA (2017) *Waste Classification Guidelines Part 1: Classifying Waste*, and the 2016 addendum thereto;
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.

1.4 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 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
The proponent be required to ensure that concrete waste and rinse water are not disposed of on the development site, and prevented from entering waters, including any natural or artificial watercourse.

1.5 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
The proponent be required to minimise dust emissions on the site and prevent dust emissions from the site.

1.6 Erosion and sediment control

Managing Urban Stormwater Soils and Construction, 4th Edition published by Landcom (the so-called 'Blue Book') provides guidance material for achieving effective erosion and 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 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.

Recommendation
The proponent be required to design and implement erosion and sediment control to comply with Landcom's *Managing Urban Stormwater Soils and Construction,* 4th Edition.

2.0 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.

2.1 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 sensitive receivers.

The EPA notes the proximity of the surrounding residences and is aware from long experience of the need for appropriate operational noise mitigation and management measures, particularly in regard to:

a) the nature of and times during which school facilities are made available for community use;
b) design, selection and operation of mechanical ventilation plant and equipment;
c) the design and operation of the school public address/bell system;
d) the design and location of waste storage facilities;
e) time restrictions on waste collection services; and
f) time restrictions on grounds maintenance using powered equipment (e.g. leaf blowers, brushcutters and lawn mowers).

Recommendations
The proponent be required to adopt the noise mitigation described in the NVIA (Appendix H) Summary of Recommendations in section 10.

2.1.1 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 the proposed community use of school facilities (especially the hall outside normal school hours) needs to be carefully managed to ensure noise impacts on nearby residences are minimised. Table 5 in EIS section 4.8 outlines the proposed hours for community use of school facilities, including:

a) 10.00 pm curfew on community use of the school hall;
b) use of school facilities by external bodies including community groups up to 10pm; and
c) use of the proposed school fields by external parties may be proposed subject to discussions.

The EPA considers that, the use of the school hall for other events, particularly outside school hours, has the potential to adversely impact on residences. The NVIA predicts noise impacts from use of the hall and recommends that doors and other large ventilation openings should be closed after 6:00 pm where the activity involves amplified loud music or speech.

The EPA notes that the NVIA has not assessed external activities by non-school uses as they were not proposed.

Recommendations

1. The proponent be required to ensure that the school hall is not made available for community use:
   a) during week day mornings,
   b) later than 10:00 pm on week nights,
   c) other than between the hours of 8:00 am and 6:00 pm on Saturdays, and
   d) during Sundays and public holidays.

2. The proponent be required to ensure doors and other large ventilation opening should be closed after 6:00 pm where activity involves amplified loud music or speech.

Furthermore, the EPA anticipates that external activities are likely to be considered at some time in the future and recommends that the following conditions are included.

3. The EPA recommends that the proponent be required to:
   a) Undertake comprehensive noise compliance monitoring of representative uses of the school hall, 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 more stringent or more relaxed restrictions on the times at which and the frequency of each type of use of the school hall, 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 –
      i. audience/spectator noise,
      ii. referee whistle noise,
      iii. training sessions as well as sporting events,
      iv. any amplified sound during sporting events and any associated training sessions,
      v. any amplified sound during music performances and other non-sporting events and any associated rehearsals, and
      vi. post-event audience/spectator noise, including vehicle door slamming and departure noise.

   d) Ensure that the 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.

2.1.2 Mechanical plant and equipment

Section 8.10.2 of the EIS states that, "*noise emission from the mechanical plant will be assessed prior to construction once equipment items are selected and location is finalised*".

Recommendation

The proponent be required to undertake the following:

1. design mechanical plant noise to achieve no greater than background + 5bB and include the specific design requirements set out in section 6.2 of NVIA
2. provide a comprehensive quantitative assessment of operational noise impacts of mechanical plant and equipment (especially ventilation/ air conditioning plant and equipment) on surrounding noise sensitive receivers, especially surrounding residences;
3. ensure mechanical plant and equipment installed on the development site does not generate, (either individually or cumulatively):
   a) noise emissions that exceed the Project Noise Trigger Level (day, evening and night assessment periods) measured at the boundary of the most affected or reasonably most affected residence, and
   b) noise emissions that exhibit tonal or other annoying characteristics.

2.1.3 Public address and school bell system

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

The proponent be required to design, install and operate the school public address/bell system to achieve a noise level of no greater than background + 10 dB. Furthermore, speakers should be selected and located in accordance with section 6.2 of NVIA (Appendix H).

2.1.4 Waste collection services

Section 4.9.2 states that "…*a curfew will be applied so that waste/service vehicles occurred outside school activities (at night or early mornings) to minimise interactions with parked cars*."

Recommendation

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 to minimise noise impacts on surrounding receivers in the more sensitive morning, evening and night time periods.

2.1.5 Grounds maintenance using powered equipment

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

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.

2.2 Waste management

The proponent should manage waste in accordance with the waste management hierarchy outlined in section 1.3 of this document.

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

2.3 Water sensitive urban design and energy conservation and efficiency

The EPA acknowledges that EIS section 8.6 outlines a range of environmentally sustainable development initiatives to be implemented. Further sustainable design strategies to be incorporated in the Schematic Design are provided in Appendix N but the proponent does not appear to have committed to implementing all of those, including:

a) above or below ground rain water tank storage;
b) use of material with low VOC emissions; and
c) use of material from sustainable manufacturers wherever possible.

2.4 Stormwater Management

The EPA acknowledges that EIS section 4.13 states that stormwater will be managed to "*ensure the proposal does not adversely impact on stormwater flows and the water quality of the receiving waterways downstream of the site*" and EIS section 8.13.1 states *"Stormwater quality measures are to be implemented to ensure that potential pollutants are suitable [SIC] dealt with".* Appendix S provides details on a pollutant reduction system but the proponent does not appear to have committed to implementing this.

Recommendation
The proponent be required to implement a pollutant reduction system for stormwater such as those proposed in Appendix S of the EIS.