NSW EPA

Your reference SSD 7542
Our reference: EF16/2938, DOC295135-01
Contact: J Goodwin 9995 6838

Mr Lee McCourt
Department of Planning and Environment
GPO BOX 39
SYDNEY 2001

Dear Mr McCourt

SSD 7542 – RPA MULTI-STOREY CAR PARK PROJECT – EIS

I am writing to you in reply to your invitation to the EPA to provide a submission in respect of the project EIS.

The EPA requests that the following advice be considered together with its letter dated 21 March 2016.

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

Separate assessment processes

The EPA understands that existing structures and infrastructure on the development site are proposed to be demolished under a separate assessment process. The EPA is concerned that the dual assessment process may lead to inadequate environmental impact mitigation and management measures, including;

- undertaking demolition and site preparation work outside standard hours recommended in the Interim Construction Noise Guideline;
- undertaking demolition and site preparation without providing intra-day respite periods from rock breaking, jackhammering and other high noise impact activities; and
- an other than seamless transition of sediment and erosion controls and dust minimisation and mitigation measures, particularly should different lead contractors be engaged to undertake demolition, site preparation, site remediation and bulk earthworks and construction or combinations of those activities.

It is important that appropriate conditions are included under these separate processes to ensure continuity of appropriate management practices, to minimise potential noise and water pollution impacts from the site.

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Operational noise impact avoidance and mitigation

The EPA understands that vehicular access to and from the development would primarily be obtained via Church Street with access points located opposite terrace houses located in Fowler Street. The EPA anticipates significant daily noise impacts on Fowler Street residences from vehicle movements associated with early morning shift changes. It is unclear why vehicular access is not proposed to be achieved via alternative means such as the internal (private) 'Hospital Road' which has a signalised intersection with Carillon Avenue.

Similarly, the EPA anticipates daily noise impacts on Fowler Street residences and Sydney University student accommodation from activities within the car park structure. And, is concerned that the proposed omission of appropriate passive noise mitigation measures has not been adequately justified.

Accordingly, the EPA requests further clarification and justification concerning:

(a) whether vehicular access can be obtained via the RPA internal road network or from Lucas Street some distance east of its intersection with Church Street; and

(b) whether solid walls, or acoustic louvres, or a combination of solid walls and acoustic louvres can be incorporated into the wall / side of the carpark immediately opposite the student accommodation and Fowler Street residences.

The EPA has identified the following site specific concerns based on the information (including the draft SEARs) available on the Department of Planning and Environment major projects web site:

(a) the need to undertake a detailed assessment of potential site contamination (including information about groundwater following demolition of existing buildings, paved surfaces and infrastructure);

(b) handling, transport and disposal of any asbestos waste encountered during demolition, site preparation and bulk earthworks;

(c) demolition, site preparation, bulk earthworks, construction and construction-related 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;

(d) demolition, site preparation, bulk earthworks and construction phase dust control and management;

(e) demolition, site preparation, bulk earthworks and construction phase erosion and sediment control and management;

(f) operational noise impacts on noise sensitive receivers; and

(g) operational water quality impacts on surface waters.

The EPA expands on its concerns in Attachment A to this letter. Should you require clarification of any of the above please contact John Goodwin on 9995 6838.

Yours sincerely

1.8.16

MIKE SHARPIN
Acting Manager, Metropolitan Infrastructure
NSW Environment Protection Authority

Attachment A

ATTACHMENT A

- ENVIRONMENT PROTECTION AUTHORITY COMMENTS –

RPA MULTI-STOREY CAR PARK

1. General

The EPA considers that the project comprises distinct phases of construction (including demolition) 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 demolition , construction and construction-related activities will be undertaken in an environmentally responsible manner with particular emphasis on –

- Site investigation, remediation ,
- 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,
- runoff, erosion and sediment, and
- waste handling and management, particularly concrete waste and rinse water, and

2.1 Site investigation and remediation

EIS Appendix K *Preliminary Stage 2 Environmental Site Assessment* reports that:

(a) it is the consultants opinion that the site can be made suitable for the proposed use subject to implementation of the report recommendations (section 10, p.27),

(b) the site investigation did not meet the minimum soil sampling soil density recommended in the EPA guidelines but will be met in the course of further investigation under way at the time of writing Appendix K (section 10, item 1, p.27);

(c) the site inspection (section 2.5, p. 4) did not include internal inspection of the existing pre 1990s buildings, including the 2 storey brick building on the corner of church and Lucas Streets and the single storey brick building used as a pre-school;

(d) significant data gaps need to be addressed by further investigation (section 9.3., p.26);

(e) buildings previously demolished on the site would have been constructed at a time that may have involved the use of hazardous building materials (Table 3-1, p.8);

(f) the entire site has been filled to a depth of up to 1.1 metres (Table 6-1, p.17);

(g) an underground petroleum storage tank was identified on an adjoining site (east) during a previous site investigation;

(h) Benzene; (a) pyrene TEQ was above Health Investigation Level - D criteria of 40 mg/kg (Table 6-3, p.18);

(i) additional detailed site investigation is required (Table, section 10, p.27);

(j) a site remediation action plan should be prepared pending completion of demolition of existing structures (Table, section 10, p.27) and in accordance with the Guidelines for Consultants Reporting on Contaminated Sites; and

(k) site validation assessment is required (Table, section 10, p.27).

The EPA notes that asbestos was not detected in the limited soil sampling undertaken. However, the EPA anticipates that given the age of existing buildings, the age of previously demolished buildings and the presence of a concrete slab under fill material, asbestos containing materials, lead-based paint and PCBs may be encountered on the site.

Recommendation

The proponent be required prior to commencing any excavation on the development site or adjoining off site areas, to complete and report on a detailed site investigation and to prepare a site remediation action plan.

Recommendation

The proponent be required prior to commencing any work (including demolition) to prepare and implement an appropriate procedure for identifying and dealing with unexpected finds of site contamination, including asbestos containing materials, PCBs and lead-based paint, particularly in respect of the existing buildings and their curtilage.

Recommendation

The proponent be required to satisfy the requirements of the Protection of the Environment Operations (Waste) Regulation 2014 with particular reference to Part 7 'asbestos wastes'.

Note: The EPA provides additional guidance material at its web-site

http://www.environment.nsw.gov.au/waste/asbestos/index.htm.

Recommendation

The proponent be required to consult with SafeWork NSW concerning the handling of any asbestos waste that may be encountered during the course of the project.

2.2 Noise and vibration

The EPA considers that the project is likely to generate significant noise impacts on surrounding noise sensitive receivers during demolition, site preparation, bulk earthworks, construction and construction-related activities.

The EPA emphasises the importance of properly managing noise and vibration impacts during demolition, site preparation, bulk earthworks, construction and construction-related activities, especially in regard to high

noise impact activities, such as grinding, jack hammering, pile driving, rock breaking and hammering, rock drilling, saw cutting, and vibratory rolling.

The EPA provides guidance material available on its web site including downloadable copies of –

- the Interim Construction Noise Guideline (2009), and
- Assessing Vibration: a technical guideline (2006).

2.2.1 General construction hours

The EPA emphasises that demolition, site preparation, bulk earthworks, construction and construction-related activities should be undertaken during the recommended standard construction hours set out in Interim Construction Noise Guideline (ICNG) Table 1.

Recommendation

The proponent be required to ensure that demolition, site preparation, construction and construction-related work is undertaken only during the standard construction hours recommended in Table 1 Chapter 2 of the Interim Construction Noise Guideline, July 2009.

2.2.2 Construction hours (intra-day respite periods)

ICNG section 4.5 identifies construction activities proven to be particularly annoying and intrusive to nearby residents. The EPA anticipates that those demolition, site preparation, bulk earthworks, construction and construction-related activities generating noise with particularly annoying or intrusive characteristics 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 work referred to in ICNG section 4.5

Recommendation

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

2.2.3 Queuing and idling construction vehicles and vessels

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

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

2.3 Dust control and management

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

Recommendation

The proponent be required to:

(a) minimise dust emissions on the site, and

(b) prevent dust emissions from the site.

2.4 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. However, 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, earthmoving, construction and construction-related activities until appropriate and effective erosion and sediment controls are in place, and

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

2.5 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 "*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.

2.6 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

The proponent be required to ensure that concrete waste and rinse water are not disposed of on the development site.

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 with regard to :

(a) feasible and reasonable noise mitigation measures; and

(b) minimisation of operational water quality impacts on surface waters.

3.1 Noise and vibration impacts

The EPA anticipates the proposed development may have significant operational noise impacts (especially during evening and night-time) on nearby sensitive receivers, including off-campus residences. And, those noise impacts are likely to include noise emitted from vehicle ingress and egress, proposed to be focused at the western end of the development site opposite terrace houses in Fowler Street.

Background noise

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 EPA notes the proximity of off-campus noise sensitive receivers, being –

(a) Fowler Road terrace houses;

(b) Sydney University student accommodation (Queen Mary Building); and

(b) Chinese consulate residences/accommodation (if any).

The EPA is concerned that the noise impact assessment appears to be inconsistent with the INP guidance material about noise monitoring required to establish the background noise levels for the project.

The EPA is particularly concerned that background noise monitoring was not undertaken at the most affected residence located off the hospital campus, being terrace houses at corner of Fowler Street, nor at the adjoining student accommodation (Queen Mary Building). The proponent argues in section 4 (3rd para, p.8) to EIS Appendix O that the monitoring location was "... selected as it was located away from any local noise source (such as plant noise from the Marie Bashir ..." building. However, the EPA notes that the residences on the corner of Fowler and Church Streets are located further away from the influence of such local noise sources. And, are partially shielded by the disused 2 storey brick building on the corner of Lucas and Church Streets.

The EPA is similarly concerned that the proponent does not appear to have obtained the minimum "... one week's worth of valid data ..." anticipated by the INP for the assessment of the background noise levels (i.e. for day, evening and night-time periods), particularly given that –

(i) no background noise monitoring data is presented until 10.00 am on 23 March 2016 (noting that wind speeds are reported as 5 metres per second or greater prior to 10.00 am);

(ii) no background monitoring data is recorded for 30 March after 8.00 am and contrary to section 4 (2nd para) of EIS Appendix O background noise monitoring data was not presented for 31 March 2016; and

(iii) the Bureau of Meteorology (Observatory Hill) recorded rain on 4 of the 8 days of the background monitoring period with highest daily rainfall of 34.8 mm and 7.0 mm observed on 28 and 30 March respectively. However, the rain periods shown on the background noise monitoring graph for 28 March 2016 do not appear to be consistent with the Bureau of Meteorology observations.

The INP allows noise measurements made under adverse meteorological conditions when it can be demonstrated that wind-induced noise on the microphone (and sound levels due to rain) is at least 10dB below the noise levels under investigation. However, the noise impact assessment does not provide any demonstration that wind-induced noise and rain noise was at least 10dB below the noise levels under investigation. Instead, the proponent notes in section 4 (5th para, p.8) of EIS Appendix O that wind and rain affected monitoring data have "... been omitted when determining the background noise levels at the site."

However, the EPA would consider it reasonable to adopt a night-time background noise level of 40 dBA, to ensure the noise objectives are adequately protective, particularly in regard to sleep disturbance.

Recommendation

The proponent be required to:

(a) (i) to adopt a night-time background noise level of 40 dBA, OR

(ii) provide a quantitative assessment of the 'night-time' background noise level measured at the most affected residence (corner of Fowler and Church Streets and in accordance with the guidance material provided in the New South Wales Industrial Noise Policy. And, identify the dominant and background noise sources present at the site throughout the monitoring period (including "identification and occurrence of noise sources" in accordance with INP B1.2)

together with confirmation of whether these noise sources and resultant background noise levels would be typical of longer term background noise at the site;

(b) provide further clarification and justification concerning why :

(i) vehicular access should not feasibly and reasonably be obtained via the RPA internal road network (e.g. Hospital Road) or from Lucas Street some distance east of its intersection with Church Street (rather than directly or indirectly from Church Street), and

(ii) solid walls, or acoustic louvres, or a combination of solid walls and acoustic louvres cannot feasibly and reasonably be incorporated into the wall / side of the carpark immediately opposite the student accommodation and Fowler Street residences; and

(c) ensure that any plant and equipment that may need to be installed does not generate noise –

(i) at a level (measured at the most affected noise sensitive receivers) that exceeds 5 dBA above the 'night-time' background noise level, and

(ii) that exhibits tonal or other annoying characteristics likely to cause sleep disturbance.

Recommendation

That consideration be given to requiring the proponent –

(a) to undertake noise compliance monitoring and assessment during commissioning of the car park and any associated mechanical plant and equipment serving it; and

(b) to report the results of the compliance assessment monitoring referred to in (a) to confirm that noise levels do not exceed levels predicted in the required noise impact assessment and acceptable noise criteria identified in the NSW Industrial Noise Policy, January 2000.

3.2 Water quality

The EPA notes EIS section 4.7.2 outlines measures to collect and treat stormwater runoff from the car park.
