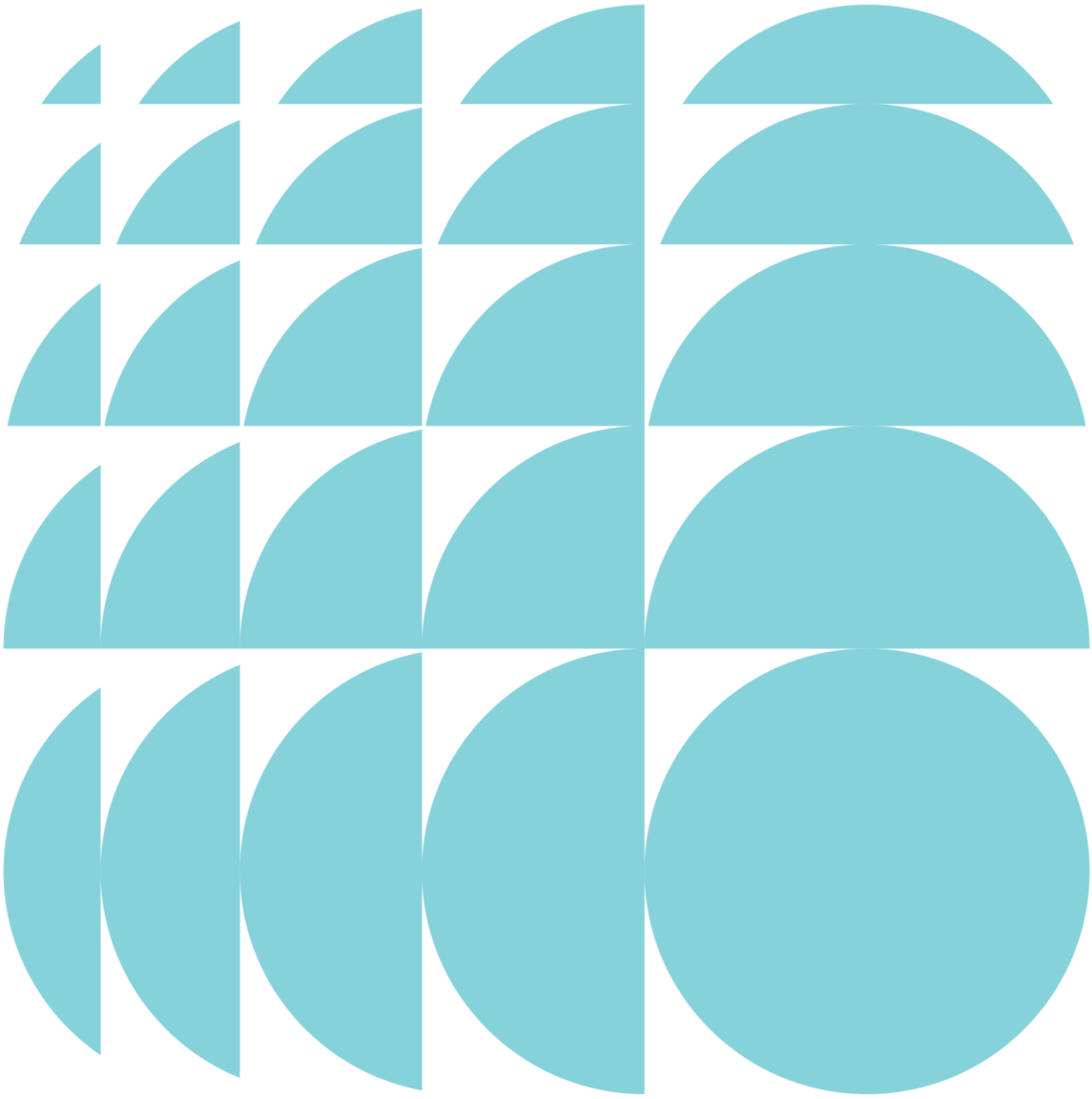
ETHOS URBAN

Further Response to Submissions

SSD 8544 Glebe Island Concrete Batching Plant and Aggregate Handling Facility

Submitted to Department of Planning, Industry and Environment on behalf of Hanson Construction Materials Pty Ltd

11 June 2020 | 17142



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1.0 Introduction

A State Significant Development Application (SSDA) and accompanying Environmental Impact Statement (EIS) was lodged on 11 April 2018, and publicly exhibited for a period of thirty-five (35) days inclusive between 11 April 2018 and 15 May 2018. Within the proposed SSDA, the applicant (Hanson Construction Materials Pty Ltd (Hanson)), seeks to develop a new aggregate handling facility and concrete batching plant (the 'proposed development') at Glebe Island, including the construction of:

- A concrete batching plant with the capacity to produce up to 1 million m^3 of concrete per annum; and
- An aggregate terminal that will receive and handle aggregates delivered by ship for use in the proposed new Glebe Island concrete batching plant, as well as for dispatch to surrounding concrete batching plants.

A total of 244 submissions were received in response to the public exhibition of the EIS, including 12 submissions made by government authorities and agencies, and 232 submission from the public (note: duplicate submissions were only counted once). A Response to Submissions Report, which provided a response to the issues raised in public submissions on the EIS, was submitted to the Department of Planning, Industry and Environment in January 2020 and was publicly notified during February 2020.

A total of 91 submissions have been subsequently received in relation to the publicly notification of the Response to Submissions Report. Four of these were from Government agencies and public authorities, including:

- Environment Protection Authority (EPA)
- Heritage NSW (as delegate for the Heritage Council of NSW)
- Transport for NSW (TfNSW)
- City of Sydney Council.

The Department of Planning, Industry and Environment has also identified issues that it requests Hanson address. A summary of all issues raised in these further submissions from the agencies and by the Department, and a detailed response to the issues, is provided in **Section 2** below.

In addition to the agencies, 87 new submissions have been received from the general public, including local residents and organisations. The key issues raised in these new submissions are summarised in **Section 3**, which also includes a response to these issues.

The responses to the issues raised provide further details / clarification about the impacts of the development and management of those impacts. The responses do not alter the proposed development. The schedule of mitigation measures provided at Section 5 of the Response to Submissions Report remains relevant and suitable with only one additional amendment, as follows:

- In a road only operating scenario (i.e. when Hanson is unable to deliver aggregates to the facility by ship), Hanson commits to operating the facility so that it does not exceed 182 truck movements per hour in any 1-hour period until further impact assessment has been carried out to the satisfaction of TfNSW, the EPA, and the Secretary of the Department of Planning, Industry and Environment.

This report summarises the matters raised in the further submissions and provides Hanson's further responses to these matters. This Further Response to Submissions should be read in conjunction with the EIS and the response to Submissions Report.

The Site is owned by the Port Authority of NSW (Port Authority).

Whilst the Department of Planning, Industry and Environment is the relevant planning authority responsible for coordinating the assessment of the SSDA in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979*, the consent authority is the Independent Planning Commission due to the number of objections.

2.0 Agency Submissions: Summary and Response

2.1 Department of Planning Industry and Environment

2.1.1 Air Quality

The Department obtained a detailed review of the Air Quality Impact Assessment and relevant responses to air quality issues in the Response to Submissions Report from Todoroski Air Sciences. Todoroski Air Sciences has reiterated a number of concerns in relation to the assessment of air quality impacts, as follows:

- The available meteorological data from the Rozelle meteorological station is unlikely to be representative of the site, affecting the validity of air quality modelling outputs.
- Potential under-estimation of air emissions including from the land-side concrete batching operations, ship engines, and truck movements. Todoroski Air Sciences specifically requests a detailed air emissions inventory and further details of how emissions estimates were derived.
- Potential underestimation of impact at elevated receptor locations as a result of potential point source emissions from the concrete batching plant shed.
- Selection of background data and inaccuracies in the cumulative assessment.

Hanson has obtained detailed response to these issues from ERM, which is provided in **Attachment A**. In summary:

- The use of meteorological data from the Rozelle meteorological station is considered to be sufficiently representative, and is compliant with the EPA's Approved Methods for the Modelling and Assessment of Air Pollutants in NSW. As such, the model outputs are considered to be valid.
- A detailed air emissions inventory is provided in **Attachment A**. In relation to the potential for under-estimation of air emissions, the following is highlighted:
    - Concrete batching activities will be carried out within the enclosed shed, which is the most effective way to prevent dust emissions. Some emissions would still occur through opened doors and from mechanical ventilation of the shed. Air quality modelling did not assume any filtration of mechanically ventilated air, however mechanical ventilation units would include filtration, reducing air emissions from these activities compared to what was estimated for modelling.
    - In relation to trucks, the Air Quality Impact Assessment (at Appendix I of the EIS) has modelled peak operational activity of 965 trucks per day, distributed as shown in Figure 6-1 of the Air Quality Impact Assessment (note that Table 6-2 of the Air Quality Impact Assessment includes an error in the number of trucks, which has been corrected in Table 1 of **Attachment A** – the air quality modelling presented in the Air Quality Impact Assessment is based on the correct data shown in **Attachment A**).
    - In relation to ship emissions, it is highlighted that the source emissions were based on a similar ship's emissions as calculated in 2012. The introduction in 2020 of the International Maritime Organisation's rules for low sulphur fuel in ships (as implemented through the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* by the Australian Maritime Safety Authority) means that actual emissions of sulphur dioxide from ships will be substantially lower than what has been modelled. Further, studies of ship exhaust emissions show that emissions from the main engines are considerably less than the auxiliary engines (which have been used in the air quality modelling) over the berthing period.
- The point source emissions from the concrete batching plant shed identified by Todoroski Air Sciences is from mechanical ventilation units (e.g. air conditioners). These will not generate thermally buoyant emissions and will not be from a source substantially elevated above the height of the building. As such, they do not have characteristics that would lead to increased impacts at elevated receptor locations.
- **Attachment A** provides further justification for the use of background data from the Rozelle monitoring station for the purposes of cumulative assessment.

2.1.2 Cumulative Impact Assessment

The Department requests confirmation that the cumulative impact assessment has been reviewed in light of the most up-to-date information, including:

- The Multi-User Facility.
- The proposed White Bay and Glebe Island construction support site for the Western Harbour Tunnel and Warringah Freeway Upgrade (SSI 8863).
- The temporary capacity increase for the Glebe Island Silos (DA 9967).

In response:

- The Port Authority of NSW was a key stakeholder in the preparation of the EIS and the Response to Submissions Report, and ensuring proper coordination with the Multi-User Facility has always been a key issue for the design and assessment of Hanson's proposal. The Multi-User Facility was therefore fully taken into account in the preparation of the EIS, and whilst some of the Response to Submissions documentation pre-dates the release of the final Multi-User Facility approval, there has been no substantive change in the design or emissions from the Multi-User Facility that would affect the assessment of cumulative impacts.
- The Western Harbour Tunnel EIS indicates that it would generate approximately 130 heavy vehicle movements at The Crescent/James Craig Road intersection in the AM peak period and 250 heavy movements in the PM peak period for the modelled year of 2022. The Western Harbour Tunnel EIS concludes that the intersection is already at capacity and would experience a marginal decrease in performance as a result of the additional construction traffic. This assessment conclusion is the same as Hanson's assessment conclusion in relation to the future operation of this intersection. At Section 8.4.6 of the Western Harbour Tunnel EIS, it also has a discussion around cumulative traffic impacts around the Rozelle Interchange, and specifically considers the expansion of existing operations at Glebe Island by the Port Authority of NSW. Hanson's proposal forms part of the Port Authority's expansion of port-related activities and so Hanson's traffic has been taken into account in the consideration of cumulative impacts around the Rozelle Interchange by Transport for NSW. In relation to traffic impacts, it is highlighted that the management of traffic around the Rozelle Interchange in the foreseeable future is highly dependent on the way NSW Government construction projects are managed, and this is expected to require ongoing active management coordinated by the Port Authority of NSW and Transport for NSW. Hanson will work closely with these agencies during the delivery of major infrastructure construction projects to minimise cumulative impacts on the local traffic network as much as possible.

  In relation to air and noise emissions from Western Harbour Tunnel construction works, these emissions are intermittent and temporary, and subject to different standards and assessment methodologies compared to the Hanson proposal, so it is not appropriate to consider the cumulative impacts quantitatively. The Western Harbour Tunnel construction works site at White Bay will be required to implement all reasonable and feasible noise and air emissions reduction measures, and these measures will be actively managed through monitoring and responding to complaints to ensure impacts are minimised. It is also highlighted that the Western Harbour Tunnel construction works would largely be limited to normal day time construction hours, when noise from Hanson's facility is predicted to be well below the project specific noise trigger level.
- The temporary capacity increase for the Glebe Island Silos (DA 9967) will not increase existing peak emissions or traffic flows from the Cement Australia facility, and so will not affect the cumulative impact assessment.

2.1.3 Clarification of Worst Case Impacts

The Department requests that the proposed maximum operations be clarified (given that the proposal seeks approval to operate 24-hours-a-day, seven-days-a-week) in order to confirm that the worst-case scenario has been assessed for all impacts, and particularly notes that:

- The peak operational day referred to in the Air Quality Impact Assessment references around 7000 truck movements per day, which is inconsistent with the Traffic Impact Assessment.
- The EIS states the facility is likely to operate approximately 250 days per year on average, and is unlikely to operate on most Sundays and public holidays.

In response, the proposal remains largely as described in the EIS, comprising a new aggregate handling facility and concrete batching plant, which includes two components:

- A concrete batching plant with the capacity to produce up to 1 million m^3 of concrete per annum; and
- An aggregate terminal that will receive and handle aggregates delivered by ship for use in the proposed new Glebe Island concrete batching plant, as well as for dispatch to surrounding concrete batching plants.

Note that Table 6-2 of the Air Quality Impact Assessment includes an error in the number of trucks, which has been corrected in Table 1 of **Attachment A**. Air quality, noise and traffic impact assessments have been based on the same assumptions – being full production capacity of the concrete batching plant, unloading operations of the ship at berth, as well as emissions from trucks dispatched on a peak operational day.

In relation to the concrete batching plant it should be noted that the application seeks approval for the production and dispatch of 1 million m^3 of pre-mixed concrete per annum. On the basis that each concrete agitator truck has a capacity of around 6 m^3 this equates to approximately 170,000 trucks per annum or around 470 trucks per day. However, the facility will not be operating every day of the year, or at the same level on every operational day, so a conservative assumption has been made that the number of concrete agitator truck deliveries would be 689 on a peak operational day, with a maximum dispatch of up to 120 concrete agitator trucks to meet demand in any one hour period.

In addition to concrete agitator trucks, the concrete batching plant would require fine sand trucks (75 on an average day and up to 241 on a peak operational day) and cement tankers (23 on an average day and up to 35 on a peak operational day) to replenish the site. The number of trucks predicted for the 'peak operational day' is therefore 965.

Hanson's supply chain for aggregates is dictated by the demand for concrete from individual concrete batching plants. Aggregates that arrive by ship are intended to be used predominantly in the proposed new Glebe Island concrete batching plant, but may also be used to supply Hanson's concrete batching plants around Sydney as required. Dispatch of aggregates from the terminal, when it occurs, would generally displace some concrete agitator trucks from the concrete batching plant. Given that the amount of aggregates carried in each aggregate delivery truck is substantially more than the amount of aggregate in each concrete agitator truck, the dispatch of aggregates would generally result in a lower number of trucks from the facility overall. Further, aggregates would generally be dispatched in the fine sand trucks, meaning that they generally would not contribute to any additional truck movements (that is, the fine sand trucks would simply be leaving the facility full of aggregates rather than leaving empty).

Traffic assessment is based on the same peak operational day data, although it is highlighted that the 35 cement tankers are likely to arrive directly from the Glebe Island Cement Australia Silos and so would not require transit on the public road network. In order to model the 1-hour AM and PM network peak periods the traffic assessment undertakes a break down of when these trucks are likely to access the public road network. Analysis from Hanson's existing concrete batching plants indicates that the peak dispatch of agitator trucks is around mid-morning, after the AM peak period – resulting in a predicted truck dispatch of 91 trucks (so 182 in-and-out trucks movements in total) during the AM peak period (7:30am to 8:30am). This more refined analysis of truck dispatches for the purposes of traffic impact assessment is necessary as only two one-hour periods of each day are required for modelling. It is highlighted that Hanson has committed to limiting the operational capacity of the facility to 182 truck movements per hour (i.e. the truck movements for which traffic modelling has been carried out) until WestConnex becomes operational and the operational capacity of the surrounding intersections is better understood.

2.1.4 Road Only Scenario

The Department requests confirmation that a road-only scenario would not generate additional vehicular traffic and if necessary, an assessment of any additional traffic impacts.

In response, it is highlighted that the 'road only scenario' relates to the scenario where Hanson's ship is unable to deliver aggregate to Glebe Island. In that scenario aggregates would need to be trucked into Glebe Island to service the concrete batching plant, potentially increasing the number of trucks accessing the site. In order to ensure air quality, noise and traffic impacts are able to be managed during a road only scenario, Hanson commits to

limiting the operational capacity of the concrete batching to a maximum of 182 truck movements per hour until further impact assessment has been carried out to the satisfaction of TfNSW, the EPA, and the Secretary of the Department of Planning, Industry and Environment.

2.2 EPA

The EPA had no further comments regarding air quality or water quality. However, the EPA provided in its further submission additional advice and recommendations for noise and vibration impacts. In particular, the EPA did not agree with the project-specific noise trigger levels recommended as part of the Response to Submissions Report. Rather, the EPA has proposed project-specific noise trigger levels for Hanson's total noise emissions (i.e. from land-side concrete batching and aggregate handling activities together with ship noise) that are consistent with the levels calculated under the Noise Policy for Industry, except for residents in Pyrmont where the trigger levels are up to 4-5 dBA higher commensurate with noise modelling for a good noise performing ship.

Whilst Hanson notes that compliance with the EPA's proposed noise criteria represents a technical challenge that will involve costly design specifications for its ship, Hanson is willing to accept the EPA's recommendations on the basis that they are technically feasible and represent best practice in relation to management of noise from port related activities at Glebe Island. The vessel proposed by Hanson is a dedicated vessel under a longer term agreement. This vessel is consistent with the Port Authority's proposed draft Vessel Noise Operating Protocol and the Protocol's more stringent medium to longer term noise goals.

However, it is requested that the Department include provisions within the development consent that enable these conditions to be superseded with agreement of the EPA if a port precinct-wide agreement is reached by the EPA and the Port Authority in relation to managing noise at Glebe Island in a more integrated and comprehensive way.

Hanson is willing to accept all other recommendations of the EPA as conditions of consent.

2.3 Heritage NSW

Heritage NSW is supportive of the approach to monitoring set out in the Statement of Heritage Impact, and recommends that its recommendations be adopted, including that:

- A historical archaeological monitoring program be undertaken concurrently with any excavation works below the existing hardstand in the vicinity of the proposed silo area.
- The approved Research Design and Methodology which outlines the methods for the archaeological monitoring, recording procedure of any remains or relics that are uncovered, and research questions and reporting requirements.
- The archaeological monitoring works be undertaken by a suitably qualified historical archaeologist under the approved Research Design and Methodology document, and the document included in any project detailed construction program.
- At the conclusion of the work a report of the findings from the monitoring program be prepared and submitted to Heritage NSW with 12 months.

Hanson is willing to accept conditions that reflect Heritage NSW's recommendations.

2.4 TfNSW

TfNSW provided advisory comments for the Department's consideration in the determination of the application, including the following recommendations:

- Vehicle movements to and from the proposed development during the morning peak periods should be minimised in order to ameliorate the impact of the proposed development on the surrounding classified road network and to ensure the safe and efficient operation of the key intersections.
- The layout of the proposed car parking areas associated with the development should be in accordance with AS 2890.1-2004 and AS2890.6-2009, and operated so that all vehicles enter and exit the site in a forward direction, and all vehicles wholly contained on site before being required to stop.

- A Construction Pedestrian and Traffic Management Plan (CPTMP) be prepared in consultation with the Sydney Coordination Office and endorsed by the Coordinator General, Transport Coordination prior to the issue of any construction certificate or any preparatory, demolition or excavation works, whichever is the earlier. The CPTMP is to include:
    - Project details (including location of work zones, cranes and haulage routes, construction vehicle access arrangements, construction program and construction hours).
    - An estimated number of construction vehicle movements, including measures to reduce the number of movements during the AM and PM peak periods and measures to avoid construction worker vehicle movements.
    - A consultation strategy
    - Any potential impacts to general traffic, cyclists, pedestrians and bus services within the vicinity of the site, consideration and the duration of the impacts.
    - Cumulative construction impacts of projects including Westconnex and Sydney Metro City and Southwest and other developments. Existing CPTMPs for developments within or around the development site should be referenced in the CPTMP to ensure that coordination of work activities are managed to minimise impacts on the road network.
    - Proposed mitigation measures.

Hanson is willing to accept conditions that reflect TfNSW's recommendations but notes that the CPTMP should also be prepared in consultation with, and to the satisfaction of, the Port Authority as the landowner and owner of the internal port road network.

2.5 City of Sydney Council

Council confirms that the air quality and noise assessments are adequate, but recommends that conditions be added to ensure air quality and noise control is regularly monitored and maintained during the construction and operation of the facility, including compliance with all mitigation measures and noise policy benchmarks. Hanson is willing accept conditions that reflect Council's recommendations in this regard.

Council recommended that the development complies with the Detailed Lighting Strategy submitted as part of the Response to Submissions Report and all relevant Australian Standards, as well as that lighting be fitted with dimmers to allow areas to be dimmed or lights switched off when areas are not in us, and that any external lights be fitted with a top cover or be downward facing to minimise light spill to the sky and reduce night-time glare. Hanson is willing accept conditions that reflect Council's recommendations in this regard.

In relation to urban design, Council recommended that further design development be carried out to integrate visual mitigation measures into the overall development, including submission of details of the green wall, public art strategies and landscaping strategies prior to the determination of the application – and highlights that there are opportunities to integrate public art within the development that will provide visual interest to the development from many public vantage points. Alternatively, Council recommended that Hanson reconsider the location of the development further to the north where it will have a lesser visual impact from publicly accessible foreshores and sharing of acoustic impacts with residential areas in Balmain and Pyrmont.

Hanson does not agree with Council's recommendations in relation to urban design. In particular:

- The location of the proposed facility is dictated by the lease agreement negotiations with the Port Authority. It is the best site when considered against the needs of other existing and proposed users at Glebe Island and with consideration of direct access allowing efficient and effective aggregate unloading activities from Glebe Island Berth 1. Proposed users include the approved Multi-user Facility and potentially the TfNSW's construction support site for the Western Harbour Tunnel.
- Hanson is willing to undertake detailed investigations of green walls, public art strategies and landscaping strategies as part of the detailed design process, and would be willing to accept a condition that requires these investigations in consultation with the Port Authority, Council and to the satisfaction of the Port Authority and Secretary. Hanson notes that the Port Authority, as the landowner, has already required that the development of any urban design / landscape plan and public art strategy by done in consultation with the Port Authority to ensure consistency with the Port Authority's public art strategy, which is currently under development. It is not

considered reasonable to delay the development approval process for matters of detail that are not critical to the assessment of impacts.

The EIS in support of the State Significant Development Application (SSDA 8554) was publicly exhibited for a period of thirty-five (35) days inclusive between 11 April 2018 and 15 May 2018. Public exhibition occurred in accordance with the requirements of the EP&A Act. This section of the report provides a summary of the matters raised by DP&E, other government agencies and authorities, and by the public, during the public exhibition of the SSDA. A complete discussion of the matters raised within the submissions is provided in Section 5.0 along with any supplementary environmental assessment that may be required.

3.0 Community Submissions: Summary and Response

The key issues raised in further submissions made by members of the general public, including organisations, are summarised below, and a response provided. We note that a large number of submissions address both Hanson's proposal (the subject of this Further Response to Submissions Letter), as well as the Multi-User Facility recently approved by the Port Authority. We have attempted to separate out the issues that relate to Hanson's proposal, and do not provide any responses in relation to the Multi-User Facility.

3.1 Noise Emissions

3.1.1 Issues Raised in Submissions

Submissions raise a range of issues regarding noise emissions, from both land side industrial activities and ship side activities. Examples of the key noise emissions issues are summarised below:

- The noise levels contemplated are exceptionally high (exceedances up to 8 dBA) and would impact severely on the surrounding area especially at night.
- The suggestion that shipping containers would act as a sound barrier proves that Hanson does not take noise mitigation seriously.
- Hanson's noise assessment refers generically to "shipping noise" and focuses on the noise from a berthed ship unloading. There is no specific analysis of ship movements and no mention of tugs. Residents know from experience that tugs can be even louder than bulk materials ships, none of which appears to have been analysed. It is reasonable to assume that ship movements, especially if tugs are involved, would generate night-time exceedances of even more than 8 dBA - in other words, doubling of acceptable noise levels.
- Ships berthing 24 hours a day, seven days a week (24/7) will have significant detrimental impacts on the sleep patterns of local residents within the adjacent Pyrmont community from the humming of motors and generators and noise from unloading.
- Needs to take a whole of precinct approach.
- There is also specific concern around the proposed 'Noisy Ship Policy', which is currently unpublished and unavailable, as well as the adequacy of noise and air quality standards.
- Inappropriate to rely on the building amelioration and ask Pyrmont residents to close their Windows and doors 24/7.

3.1.2 Hanson's Response

The EPA's proposed noise conditions would significantly reduce the permitted noise from Hanson's combined operations (ship activities plus land-side industrial activities) to noise levels broadly compliant with the Noise Policy for Industry trigger levels. At Pyrmont, this may result in exceedances of up to 5dBA under some conditions, but represents best practice in relation to managing noise from port related activities at Glebe Island. Adherence to these noise standards will require significant and costly design interventions by Hanson, to ensure the noise from ships is as low as reasonably possible. Further, the design of the concrete batching plant has sought to minimise land-side noise emissions since its inception. All batching operations are located inside a specially constructed shed, which represents best practice in relation to management of noise emissions from concrete batching plants.

Noise from on-site truck movements will be shielded from Pyrmont by the installation of a noise barrier, and it is highlighted that shipping containers when stacked in the way proposed are an extremely effective a noise barrier.

It is certainly not suggested that residents of Pyrmont should be required to close their windows and doors 24/7. However, it should be acknowledged that the reason why all of the apartments in Pyrmont were required through the relevant development control plans and design standards to be designed and constructed to include noise attenuation was specifically in order to mitigate the noise from on-going port-related industrial activities at Glebe Island and White Bay. Further, Hanson's proposal will not operate continuously at full capacity generating maximum noise impacts 24/7. Rather, noise emissions from the ship will be periodical in nature due to the intermittent nature of shipping activities, and noise from the concrete batching plant will fluctuate in line with the demand for concrete. As such, the noise impacts that are predicted in the noise impact assessment, and the noise levels now established as conditions by the EPA, represent the worst case noise impacts that would occur during the combined noise generating scenario of peak concrete production and peak ship unloading activities. These worst case noise generating activities are unlikely to regularly coincide, even less so at night, and certainly do not represent noise impacts that will be experienced 24/7.

Hanson also notes that its (and the Port Authority's) overwhelming preference is for noise across Glebe Island to managed in a holistic and integrated way on a precinct basis, as it is considered to represent best practice for the management of noise, and will enable the coordination of activities precinct-wide to achieve the lowest amount of noise emissions possible and to minimise overall noise impacts at Pyrmont. Hanson is willing to work closely with the Port Authority of NSW and the EPA to facilitate this outcome. However, until such time as a precinct-wide management approach has been agreed with the EPA and implemented by the Port Authority of NSW, Hanson will continue to be regulated as a stand-alone facility, and will comply with its activity-specific noise standards specified by the EPA.

The Vessel Noise Operating Protocol (previously referred to as the 'Noisy Ship Policy' in the Response to Submissions Report), is one aspect of the Port Authority of NSW's efforts to establish a precinct-wide approach to the management of noise. The Vessel Noise Operating Protocol has not yet been finalised by the Port Authority of NSW, however we understand that it is intended to identify a ship noise emissions standard that represents a relatively low noise emission ship, and establish a requirement for ship operators to make refinements to their ships in order to adhere to this standard over time. If exceedances remain after 3 vessel visits and the vessel cannot demonstrate improvements via a specific management plan, then night-time unloading or night-time berthing may be restricted so that noise levels from the vessel comply with the standard. The vessel proposed by Hanson is a dedicated vessel under a longer term agreement. This vessel is consistent with the proposed draft Protocol and the Protocol's more stringent medium to longer term noise goals.

Tugs are required for safe port operations. Whilst Hanson intends to source a vessel that has bow and stern thrusters and that can therefore be operated generally without the support of tugs, the Harbour Master or delegate may direct a vessel to use tugs as deemed necessary. Independent of Hanson's proposed development, tugs will continue to be used in the port to ensure the safety of port operations and to comply with the directions of the Harbour Master.

3.2 Air Quality

3.2.1 Issues Raised in Submissions

Submissions raise a range of issues regarding air quality emissions, from both land side industrial activities and ship side activities, as well as from the operation of heavy vehicles. Examples of the key air quality emissions issues are documented below:

- Not enough recognition has been given to the air pollution which will be caused by large cargo ships at berth, by the unloading of sand and cement, and by thousands of large truck movements each day.
- Dust impacts associate with PM2.5 remain of particular concern due to associated health impacts.
- Dust and noxious gases generated by the ship's emissions and around 3,000 to 5,000 cement truck movements each day for at least 10-15 years.
- Cement dust pollution to surrounding residential areas would also pose a respiratory heath risk.

3.2.2 Hanson's Response

The purpose of shipping aggregates in to Glebe Island is that it is significantly more efficient in relation to the large number of aggregate delivery trucks that can be avoided travelling large distances. At a regional level this will result in a significant reduction in air emissions from trucks. It is acknowledged that the emissions from ships at berth and trucks accessing the facility represent a concentration of these emissions around Glebe Island. However, the purpose of the air quality impact assessment is to demonstrate that the EPA's health-based air quality criteria are complied with.

The design of the concrete batching plant has sought to minimise dust emissions since its inception. All batching operations are located inside a specially constructed shed, which represents best practice in relation to management of dust emissions from concrete batching plants. It should also be noted that cement is not proposed to be shipped to Glebe Island and unloaded at Hanson's facility. Rather, Hanson intends to source cement from nearby Glebe Island Cement Silos operated by Cement Australia, further enhancing the benefits of locating the facility at Glebe Island.

In relation to ship emissions, it should be highlighted that the International Maritime Organisation has brought in standards to reduce the sulfur content of diesel fuel from 3.5% to 0.5%, which will reduce the emissions of particulate matter, including PM2.5. These standards have been mandated by the Australian Maritime Safety Authority and have come into effect in 2020, and so will apply to all of Hanson's activities in the future. Hanson's ship will be specially designed to operate in accordance with these ship emissions standards, and therefore will represent best practice in relation to the minimisation and management of air emissions.

It should also be noted that the operation of Hanson's Blackwattle Bay concrete batching plant involved trucks delivering aggregates and cement, as well as concrete trucks, travelling through Pyrmont much closer to local residents. In contrast, whilst it is acknowledged that the Glebe Island facility will generate more heavy vehicle traffic than the Blackwattle Bay facility, the vast majority of aggregate and concrete trucks will only be within the local airshed for a short period of time. Instead they will be accessing the motorway system via the Rozelle Interchange, travelling away from Pyrmont and avoiding local residential streets around Pyrmont. Emissions from cement delivery trucks will be greatly reduced in comparison, and concrete trucks that remain within the local airshed would have done so anyway as they would be delivering concrete to local building sites.

3.3 Visual Impacts and Lighting

3.3.1 Issues Raised in Submissions

Many submissions raise concerns about visual impacts and night time lighting, including:

- The use of a row of old containers to hide the even uglier plant demonstrates that Hanson is not prepared to make any sincere effort to mitigate the adverse visual impact of the plant.
- The Hanson plant, now including a wall of shipping containers along the waterfront, would be an undeniable eyesore on Sydney Harbour and there is nothing in the Response to Submissions Report to justify it or to mitigate it.
- Structures should be suitable for a space in Sydney's centre, and the community should have input in the design appearance, materials used for the buildings.
- Hanson plans to build a wall of shipping containers to alleviate the noise. How ugly will they be in a short period of time. These ugly containers will not be of any use to me.
- It will be very difficult for this residential area to have bright lighting 24 hours a day opposite their living and bedroom areas.
- I ask that no lights are directed south of the facility and that lights be directed at the onshore facilities only.

3.3.2 Hanson's Response

It should be noted that Glebe Island currently contains industrial buildings and structures. Hanson's proposed facility will occupy a currently underutilised portion of the operational port at Glebe Island and will not fundamentally

change the industrial outlook across Glebe Island. Indeed, Hanson's proposed aggregate silos are located in very close proximity and in a similar line of sight to the existing Glebe Island Silos.

In relation to urban design, the buildings and structures are functional in nature and must be constructed of strong and highly durable materials such as concrete and steel. However, Hanson is willing to undertake detailed investigations of green walls, public art strategies and landscaping strategies as part of the detailed design process, and to involve the community in these processes. This includes for the noise wall proposed to be constructed out of shipping containers – with the intention to determine a façade treatment on this wall that is contextual and valuable when seen at distance from Pyrmont. Hanson notes that the Port Authority, as the landowner, has already required that the development of any urban design / landscape plan and public art strategy by done in consultation with the Port Authority to ensure consistency with the Port Authority's public art strategy, which is currently under development.

For night time lighting, Hanson will ensure that all lighting (including land side and on the ship) is directional and angled away from residential areas. Hanson will be owner and operator of its own ship. Once an acceptable arrangement of night time lighting has been established it will not change, so it is less likely that lights from the ship will be accidentally left on in a way that causes a nuisance for Pyrmont residents.

3.4 Night Time Curfew

3.4.1 Issues Raised in Submissions

In many cases the submissions that raise noise, air quality and lighting issues particularly refer to the effects on sleep and resultant health issues. Many of these submissions request that a night time curfew on Hanson's activities is established, with the curfew hours of 9pm to 7am commonly referenced as preferable. Some submissions particularly note that Hanson has not presented a sufficient explanation as to why 24/7 operations are required, and do not consider it reasonable to imply that the Glebe Island and White Bay ports are already operational 24/7 as a justification.

3.4.2 Hanson's Response

Hanson intends to operate a single ship shuttling between its Bass Point quarry, near Shell Harbour, and Glebe Island. As stated in the EIS and the Response to Submissions Report, the unloading of the ship at Glebe Island will take up to approximately 12 hours. However, this is a relatively controlled environment being located within Sydney harbour and protected from the weather and sea conditions. Ship loading facilities at Bass Point are significantly more exposed, and ship loading activities there are subject to agreeable weather and sea conditions. Further, the rate of travel is also affected by weather and sea conditions. As such, Hanson has little control over when the ship will arrive in berth at Glebe Island, and because Hanson has no berth available outside of Glebe Island there is nowhere else for the ship to take safe harbour. These are the technical reasons why Hanson cannot accept a night time curfew on its ship activities.

In addition, the facility requires a significant investment, not least of all the acquisition of a ship that contains best practice design refinements to minimise noise and air emissions, as well as the construction of a shed to minimise noise and dust emissions from concrete batching activities. This substantial investment by Hanson will contribute to a significant reduction of traffic congestion and associated air emissions on a regional and sub-regional basis. However, the investment is premised on the basis of the ship operating continuously. It is simply not viable for Hanson to make this investment if the use of Glebe Island for industrial or shipping activities is restricted during the night time period. As such, whilst the facility will not be continuously operating 24/7 due to the intermittent nature of ship loading activities and the fluctuating demand for concrete, a night time curfew cannot be accepted by Hanson.

The EIS, the Response to Submissions Report and this Further Response to Submissions Report have demonstrated that the impacts of the proposal, including 24/7 operations, are acceptable with the proposed mitigation measures. Furthermore, it is reasonable and important to note that existing port operations at Glebe Island and White Bay are all 24/7, as required, and that operations at the adjacent Multi-user Facility will also be 24/7 as required.

3.5 Strategic Planning and Vision for Glebe Island

3.5.1 Issues Raised in Submissions

A large number of submissions raise concerns around the relationship of the proposed development with the strategic planning objectives for Glebe Island, with some specific examples of issues raised summarised as follows:

- Need for long-term strategic plan prior to any decisions and the related issue around the timeframe / duration of the project (10-15-20-25 years?).
- The Glebe Island Precinct is valuable and significant. A model for the entire precinct should planned, analysed and co-ordinated with community consultation, as opposed to the current piecemeal approach that will lead to sub-optimal outcomes.
- This is a far cry from the Master Plan 2000 for White Bay and Glebe Island which includes innovation, cultural, recreation, research, education, residential and maritime in its future.
- The proposal is inconsistent with the Bays Precinct Transformation Plan and other similar NSW Government strategic planning documents – none of which have indicated a major escalation of ugly, noisy, polluting industrial activity on Glebe Island.
- This is a far cry from the NSW Government's ambition for The Bays Precinct 2015, which includes:
  - "To drive an internationally competitive economy, through the creation of great destinations on Sydney Harbour that will transform Sydney, New South Wales and Australia".
  - "The transformation of The Bays Precinct is an opportunity to create stunning waterfront destinations and to deliver the kind of public spaces, promenades and workplaces that we can all be proud of. But it is potentially much more than that: it represents a once-in-a-generation opportunity to deliver innovation and attract the jobs of the future for Sydney and NSW, equipping Sydney for the future and reinforcing its reputation as an internationally-competitive, resilient and prosperous global city to live, work and visit".
- Glebe Island used to be an industrial zone in last century and was planned to be transformed to residential area in 2010 by the Government. Unfortunately, nothing has been taken place during the past ten years. The proposals on Glebe island would turn it back to heavy industrial zone again, which is inconsistent with the governmental intention of changing the abandoned industrial zone to residential zone.
- Glebe Island has had numerous uses proposed by Government(s) through the past decade (recreational, technological, residential), but there seems to be a lack of a coherent long-term vision for this asset. This proposal re-introduces heavy industry into a precinct with Australia's highest population density. This lack of a coherent vision adversely impacts on resident's life planning and expectations.
- The Multi-User Facility and Hanson proposals seem to be "drip fed" to the community, which can result in affected residents not reaching a clear view of the overall scope and impact of the proposed developments. The Multi-User Facility and Concrete Batching proposals need to be assessed in unison.

3.5.2 Hanson's Response

In relation to the Glebe Island and White Bay Master Plan 2000 it is highlighted that the two main guiding principles are to recognise the continued role of White Bay/Glebe Island as the significant commercial port facility in Sydney Harbour and facilitate continued use, as well as to provide for improved port efficiency and competitiveness. Whilst many aspects of the Master Plan have been superseded over the last 20 years, the economic and commercial significance of port-related activities remain paramount and these principles have never been abandoned.

Notwithstanding this, there is clearly a long term vision for the Glebe Island and White Bay port precinct. Details of the NSW Government's ambition for the Bays, which includes the Glebe Island and White Bay port precinct, are provided in the Infrastructure NSW's website (http://www.infrastructure.nsw.gov.au/projects-nsw/bays-west/) and involves future urban renewal with the integration of ongoing port, maritime and cruise facilities with new public spaces, mixed use development including business hubs and transport infrastructure. A cross-government project team (including Transport for NSW, the Port Authority and Infrastructure NSW) was formed in 2018 to consider opportunities for integrated planning of transport, land and water uses around White Bay, Glebe Island and the Rozelle Rail Yards. This work acknowledged that renewal will largely take place following the construction of major projects in the area and linked with the proposed Bays metro station, part of the Sydney Metro West project, which

will be operational in the second half of the 2020s. It also concluded that that port and working harbour activities at White Bay and Glebe Island are valuable strategic assets for Sydney and NSW, and future plans for the site will consider how best to integrate these activities with the new mix of uses. This transformation has not yet commenced as significant amounts of infrastructure and construction need to be carried out in the short and medium term, in particular:

- The Rozelle Interchange has just commenced tunnelling and the WestConnex M4-M5 Link is expected to be complete by 2023.
- The Western Harbour Tunnel is currently in the planning phase and is expected to be complete around 2026. The Western Harbour Tunnel will rely on a significant part of Glebe Island and White Bay as a construction site to support tunnel construction for around four and half years.
- Sydney Metro West is currently in the planning phase and is expected to be complete in the late 2020s. The Bays Station construction site is intended to be a launch and support site for two tunnel boring machines heading west to Sydney Olympic Park.

Taken together, it is clear that the enabling infrastructure that will support the transformation of The Bays Precinct is about 10 years away from being completed. Further, Glebe Island is critical for the efficient delivery of these infrastructure projects, meaning the transformation of the Bays Precinct cannot fully commence until these projects are complete. It would be impractical and improper to try and initiate the transformation program in advance of these infrastructure projects being completed – as it would lead to inefficiencies arising from competing use of land and resources, as well as creating land use conflicts if increased public accessibility was allowed whilst Glebe Island was still being used as a major construction and tunnelling support site for the Western Harbour Tunnel and Sydney Metro West.

This longer term vision of transformation is why Hanson is seeking to secure a time-limited lease from the Port Authority of NSW, similar to the process that has recently resulted in the closure of Hanson's Blackwattle Bay facility, which is currently being demolished to make way for the new Fish Markets. The use of Glebe Island in the way proposed is therefore consistent with the long term vision set out in the Bays Precinct Transformation Plan, in the sense that it does not prevent the delivery of these transformation plans at the appropriate time.

The proposal is intended to ensure that Glebe Island can continue to be used at its highest and best use until such time as transformation of this part of the Bays Precinct, including consideration of how best to integrate port and working harbour activities, is ready to progress. The reality is that in the current statutory land use framework, the highest and best use for Glebe Island in the short to medium term timeframes is for port-related industrial uses that can provide for the efficient and timely delivery of major infrastructure and development projects and support the economic development of the city.

3.6 Existing Use and 'Re-industrialisation' of Glebe Island

3.6.1 Issues Raised in Submissions

A number of submissions have raised issues with the way in which the proposal has been contextualised with historical activities, and the current levels of amenity in Pyrmont, including that the proposal is a 're-industrialisation' of Glebe Island. The following provides a summary of issues raised in submissions:

- On the one hand the State government are constantly talking up Pyrmont as a go ahead place with massive plans for commercial and residential development and gateway to the CBD. On the other hand, the area is about to be trashed by the reindustrialisation of Glebe Island with all its air, noise and visual pollution.
- Pyrmont has already been urbanised is now overwhelmingly a residential area, as is Balmain. Pyrmont-Ultimo now has a population of 22,540 with Australia's highest population density of 15,117 people per kilometre. The proposed industrialisation of Glebe Island is totally incompatible with the urban environment that now exists in Pyrmont.
- Putting a 24x7 industrial wharf beside Pyrmont is offensive from a noise pollution, air pollution, and visual pollution perspective, and inconsistent with the current development Pyrmont as high density residential that has been encouraged.

- Pyrmont is a beautiful attraction for resident couples, families and tourists to enjoy and take in the serene and attractive lifestyle, it concerns us that it will become a noisy industrial work site.
- Surely there are better uses for Glebe Island, which is a prime location in one of the best harbours in the world.
- This is a waste of a great opportunity to utilise this space as the promised tech hub for Sydney and a tragic waste of one of the best waterfront sites in Sydney, if not the world.
- The harbour foreshore around Jacksons Landing was transformed into a residential precinct some 20 years ago. Industry back then was moved out to make way for this area to be enjoyed by residents and visitors alike.
- People purchased apartments on the basis that the area had been largely converted from the old industrial precinct to a residential friendly area with harbourside parks and promenades, and believed that this process would continue with further enhancements planned the improve it as a residential area.
- Many residents moved to Pyrmont were encouraged by the Government's Bays Precinct Plan.
- For a noisy polluting "overseas" owned industry to be brought to this beautiful harbour seems totally incongruous. I hate to think of health issues to many residents due to pollution, anxiety and stress not withstanding drastic falls in property values.
- It runs completely contrary to the Bays Precinct Plan, which the majority of owners in Jacksons Landing had every right to rely on when they purchased their properties, many as long as twenty years ago.
- Making 1 million m^3 of concrete each year, tens of thousands of truck movements and 120 ship movements is not just a continuation of normal activity on this part of Glebe Island, but is a massive escalation. And it would be directly opposite hundreds of apartments that have been built since this part of Glebe Island last had any major activity.
- Shipping movements to Glebe Island berths 1 and 2 have generally been limited to about 4-6 ship visits per year for periods of up to a week, for the last several years. There were no plans to industrialise Glebe Island when most people purchased their apartments in recent years, so the proposed plans comprise a massive change for the adjacent community in Pyrmont.
- Historical shipping numbers are from twelve years ago when Glebe island was last used for car imports. Since then only a handful of ships have berthed at Glebe Island each year, so it is misleading to run a "continued use" claim based on "historical numbers" and a "use" that ceased more than a decade ago.
- It is misleading to say that Glebe Island and White Bay ports are already operational 24/7 when the level of activity at Glebe Island is generally limited to 2 or 3 bulk materials ships berth each year, and minor activity involving small boats and barges such as the preparation of the New Year fireworks and the unloading of waste from Garden Island, which is small scale and mostly occurs in normal business hours.
- To go from a handful of ship movements and a few days of ship to truck activity to hundreds of ships per year with two large new factories on land and thousands and thousands of truck movements is a totally different scenario.
- A working harbour is one thing-- the re-industrialisation of Glebe Island quite another.
- Do we need a cement works in the centre of Sydney?
- Glebe island looks to me like an opportunity for progressive development. Instead development plans appear to be simply lazy government, quick cheap answers and short sighted planning.
- Building a concrete plant which will sit less than 200 metres from homes in Pyrmont is unacceptable and will impact thousands of people, in thousands of apartments, in a lovely quiet and beautiful area. You would not allow such a facility to be built so close to homes in any other suburb, so why here? This belongs in an industrial estate.
- The value of property in Ultimo-Pyrmont will decrease significantly as no one will want to buy there.
- This land should be used for the betterment of Sydney residents and not to allow an industrial plant to be built in what has now become a vibrant residential community.

3.6.2 Hanson's Response

There are two key themes arising from the above issues. The first is that many residents in Pyrmont do not accept that the development and use of Glebe Island as proposed by Hanson is commensurate with the nature and extent of current and recent historical port related activities. The proposed development is therefore seen in this context as the re-industrialisation of Glebe Island that was not foreshadowed, rather than the continuation of historical port related activities. The second is that the location of the proposed facility is not suitable given the close proximity to what is now a densely populated and highly urbanised residential community at Jackson's Landing.

To address the former issue, it is highlighted that SSD 8544 does not in any way seek to rely on existing use rights. It is a new application that has been robustly and comprehensively assessed in the context of relevant strategic and statutory environmental plans and policies. The purpose of providing reference to historical activities at Glebe Island is to place the proposed development in the context of a continuously operated port. Clearly, the nature and intensity of port related activities has changed over the years, and recently has been lower than during other historical periods.

Further, it is also acknowledged that Pyrmont has been extensively gentrified in the last 20-25 years, coinciding with a period of the last 10 or so years when port-related activity has been below historical levels. As such, many new residents in Pyrmont and Ultimo have never experienced the higher levels of industrial and port related activities at Glebe Island that might have occurred further in the past. Combined with the extensive long term planning vision that has been documented for the Bays Precinct, this has clearly affected local residents' expectations about the future use of Glebe Island.

However, it is relevant that:

- Glebe Island berths 1 and 2 (closest to Pyrmont) have over the years been used for intense shipping and port related activities on a 24/7 basis and Glebe Island berths 7 and 8 have continuously been used for intense shipping and port related activities on a 24/7 basis, associated with the port operators located at the Glebe Island Silos and the Gypsum Resources Australia building.
- The Glebe Island/White Bay port is considered a strategic asset for Sydney and NSW (refer to Section 3.5.2). The strategic importance and role of the port is identified in several government strategic plans including A Metropolis of Three Cities – The Greater Sydney Region Plan (Greater Sydney Commission, 2018), the Eastern City District Plan (Greater Sydney Commission, 2018), the NSW Freight and Ports Plan 2018-2023 (Transport for NSW, September 2018) and Building Momentum: State Infrastructure Strategy 2018-2038 (Infrastructure NSW, 2018).
- The current land use planning framework encourages port related and industrial uses at Glebe Island.
- There has never been a commitment by the NSW Government to close down these activities in the short to medium term, notwithstanding the long term plans for Glebe Island.

It is for these reasons that residential dwellings at Jackson's Landing were specifically required to include noise attenuation, further indicating that it was never the Government's intention to permanently cease night time industrial shipping or maritime activities at Glebe Island and White Bay. As discussed in Section 3.5 above, there is clearly a long term vision at Glebe Island. However, in the current statutory land use framework the highest and best use for Glebe Island in the short to medium term is for port-related industrial uses that can provide for the efficient and timely delivery of major infrastructure and development projects and support the economic development of the city.

So, whilst it is acknowledged that the proposed Hanson facility represents an intensification of the industrial shipping and maritime uses in comparison to recent historical activities, Glebe Island has clearly always been an industrial port precinct, and these port related functions are intended to be retained into the future. It is therefore not considered reasonable to characterise the proposal as the re-industrialisation of Glebe Island.

In relation to the second part of the issue, it should be noted that Hanson's proposal will not operate continuously at full capacity generating maximum impacts 24/7. Rather, emissions from the ship will be periodical in nature due to the intermittent nature of shipping activities, and emissions from the concrete batching plant will fluctuate in line with the demand for concrete. As described in Section 3.1, the predicted noise impacts represent the worst case noise impacts that would occur during the combined noise generating scenario of peak concrete production and peak ship

unloading activities, which would only occur intermittently. These noise impacts are lower than impacts from existing port operations and represent best practice, consistent with the requirements under the EPA's Noise Policy for Industry. Similarly, air emissions have been shown to comply with the EPA's health-based air pollution criteria, and lighting and visual impacts can also be managed.

As such, Hanson's proposal now represents best practice and complies with all statutory guidelines and requirements. These are the same standards and guidelines that would apply to any industrial facility in close proximity to residential areas, and which are applied routinely in that regard. Whilst the shipping activity is clearly unique, to put the concrete batching plant in context:

- There are existing concrete batching plants at Brookvale, Greenacre, and Enfield immediately adjacent to low density residential areas.
- The Blackwattle Bay batching plant was located within 100m of residential dwellings.
- The Hurstville concrete batching plant is less than 100m from surrounding residential areas.
- The Silverwater concrete batching plant is less than 150m from surrounding residential areas.
- The Hymix facility at Pyrmont is located within 150m of existing residential apartment buildings.
- The Artarmon concrete batching plant is less than 200m from surrounding residential areas.

It is therefore not unusual in an urbanised environment to have concrete batching plants located in relatively close proximity to residential areas, and it is right that these facilities are assessed in accordance with the relevant air quality and noise standards and guidelines.

It is also important to note that Hanson's proposal is located at Glebe Island, and not actually in Pyrmont. As is the case with all of the above examples, the batching plant, whilst located close to residential areas is actually located in a nearby industrial area and is consistent with the zoning of the land. In this regard, whilst the industrial activity may be visible from residential areas and contribute to background noise and dust levels, it certainly does not constitute the re-industrialisation of Pyrmont which will remain a residential area.

3.7 Trucks and Traffic

3.7.1 Issues Raised in Submissions

Many submissions raise concerns around the impacts of trucks on local streets, including:

- The impact of heavy trucks on the immediate area as a result of these proposals should be properly assessed.
- While there will be less concrete trucks state-wide on roads, there will be concentrated increased numbers of concrete trucks in our area.
- The ships will off load tonnes of sand, cement and aggregate that will then be taken by roads on heavy trucks all around the Inner West. Really how much more traffic of this nature can the roads take.
- Cumulative traffic impacts with WestConnex, Western Harbour Tunnel, and Sydney Metro West.
- The study only talks about numbers of vehicles and does not recognize that heavy trucks take 5 times as long to accelerate, a major flaw in the investigations to date or a deliberate oversight.

3.7.2 Hanson's Response

The proposed facility will not involve the transport of cement by trucks on local roads, as it will be delivered directly from the Cement Australia silos located at Glebe Island.

Aggregates delivered to the site by ship will be transported around Sydney by truck. Whilst it is acknowledged that the Glebe Island facility will generate more heavy vehicle traffic associated with the transport of aggregates in the local area, these aggregate trucks will not travel on local streets. Instead they will be accessing the motorway system via the Rozelle Interchange, travelling away from Pyrmont and avoiding local residential streets around Pyrmont.

Concrete trucks that do need to use local streets would have done so anyway as they would be delivering concrete to local building sites.

It should also be noted that the operation of Hanson's Blackwattle Bay concrete batching plant involved trucks delivering aggregates and cement, as well as concrete trucks, travelling through Pyrmont much closer to local residents.

It is acknowledged that the increased number of heavy vehicles on the main road network around Glebe Island is a critical issue, especially in the further increase in heavy vehicles associated with the WestConnex, Western Harbour Tunnel, and Sydney Metro West construction sites. In this context, a coordinated management response for heavy vehicles is of paramount importance, and Hanson will work closely with the relevant agencies (including TfNSW, Sydney Metro Authority, and the Port Authority) through the Sydney Coordination Office to ensure impacts from heavy vehicles on the main roads around the Glebe Island are minimised. It is also highlighted that the co-location of Hanson's proposed facility at Glebe Island with the WestConnex, Western Harbour Tunnel, and Sydney Metro West construction sites represents a major opportunity to significantly reduce the number of heavy vehicles on surrounding roads required to service these construction sites.

3.8 Public Hearing

3.8.1 Issues Raised in Submissions

A large proportion of submitters request that the proposed development is reviewed by the Independent Planning Commission (IPC), and that the IPC holds a public hearing.

3.8.2 Hanson's Response

Hanson notes that the determination of the development application will be made by the IPC, and that it is the IPC's decision as to whether it holds a public hearing prior to its determination. Whilst it is noted that the community has been consulted extensively through this assessment process, including via the Glebe Island White Community Liaison Group, Hanson would have no objection to a public hearing.

3.9 Other Issues

3.9.1 Issues Raised in Submissions

Other issues raised in a small number of submissions include:

- Concrete batching plants produce very high levels of carbon dioxide and a carbon footprint should be calculated and mitigation identified.
- Alternate sources of energy should be reviewed and considered, including shore to ship power.
- Water pollution of Sydney Harbour.
- More boat accidents.
- There should also be pollution standards imposed and monitoring systems set up to ensure adherence.
- 'Community Consultation' had not been genuine – as no change at all appears to have been made to the proposals and nothing in the community submissions has been taken heed of.
- Hanson is not prepared to do anything to mitigate the damage from its plant.
- Hanson has a bad track record for breaching its Environmental Protection Licences.

3.9.2 Hanson's Response

In response to the issues raised above:

- Greenhouse gas emissions: The EIS did include a greenhouse gas emissions assessment, and it is highlighted that concrete batching is not a significant greenhouse gas generating activity. Rather, greenhouse gas

emissions are generated in the production of cement and the transport of both the raw ingredients (i.e. aggregates, cement and water) and the finished concrete. The proposed development will contribute to a reduction on greenhouse gas emissions associated with Hanson's concrete as it will reduce the emission of greenhouse gas emissions associated with transport of the aggregates.

- Alternative energy: Hanson will consider the inclusion of alternative energy generation during detailed design including the installation of photovoltaic cells, however Hanson's priority is to ensure the development remains financially viable. Shore to ship power is not currently technically feasible or practically reasonable for bulk shipping, however if the shipping industry moves towards this outcome then Hanson will work with the Port Authority to utilise shore power to the extent possible at that time.
- Water pollution: All cementitious areas will be located within the building, ensuring that no contaminated stormwater runoff flows into Sydney Harbour.
- Boat accidents: Hanson (with input from the Port Authority) has prepared a preliminary Navigation Impact Statement at Appendix J of the Response to Submissions Report, which outlines the general processes and guidelines in place for marine traffic flow in order to minimise the potential for maritime incidents. A comprehensive marine traffic, navigation and safety plan will be prepared at detailed design stage when specific information (e.g. vessel type and other operational specifics) becomes available. The Harbour Master will be consulted during the preparation of the comprehensive marine traffic, navigation and safety plan.
- Environmental monitoring: Hanson's proposed development will be regulated by the EPA (through an Environment Protection Licence), the Department of Planning, Industry and Environment (through a development consent) and the Port Authority (through a Lease Agreement). Hanson will adhere to relevant pollution standards and will implement monitoring and management plans, particularly in relation to air quality and noise emissions.
- Community consultation: Hanson has engaged with the community through the statutory consultation mechanisms established under the EP&A Act, as well as through the Port Authority's Community Liaison Group as a prospective lease holder. Hanson has always sought to provide accurate information to the local community and has actively sought to understand community issues. A Response to Submissions Report was prepared responding to the submissions made to the Environmental Impact Statement, and this Further Response to Submissions has been prepared responding to a further 87 submissions. Hanson is aware of the community's issues, in particular in relation to noise and air emissions and night time lighting impacts, and has worked with the Port Authority and the EPA to best minimise and mitigate those impacts whilst also ensuring the project remains viable.
- Mitigation: As described in Section 3.1, Hanson and the Port Authority's preference is for noise across Glebe Island to be managed in a holistic and integrated way on a precinct basis, as it is considered to represent best practice for the management of noise, and will enable the coordination of activities precinct-wide to achieve the lowest amount of noise emissions possible and to minimise overall noise impacts at Pyrmont. Hanson is willing to work closely with the Port Authority and the EPA to facilitate this outcome. However, until such time as a precinct-wide management approach has been agreed with the EPA and implemented by the Port Authority, Hanson will continue to be regulated as a stand-alone facility, and will comply with its activity-specific noise standards specified by the EPA. Hanson has also committed to significant and costly design interventions to ensure the noise from ships is as low as reasonably possible. Further, the design of the concrete batching plant has sought to minimise land-side noise emissions since its inception through the enclosure of all batching operations, which represents best practice in relation to management of noise emissions from concrete batching plants. Hanson is willing to undertake detailed investigations of green walls, public art strategies and landscaping strategies as part of the detailed design process, and to involve the community in these processes. This includes for the noise wall proposed to be constructed out of shipping containers.
- Breaching EPL: Hanson operates dozens of industrial facilities in NSW alone, and in the last 8 years has only been issued with penalty notices in relation to four pollution incidents, and only two of these related to concrete batching plants. These pollution incidents were one off events relating to issues arising from uncovered stockpiles of materials causing dust emissions and contamination of stormwater, which have since been rectified. Pollution incidents of this nature are much less likely to occur at the proposed facility because there are no exposed aggregate stockpiles and the full enclosure of all concrete batching activities.

4.0 Conclusion

This Further Response to Submissions has examined the further 91 submissions received from agencies and the general public, and provides a response to these issues. Key messages provided in response to the issues raised in the further submissions include:

- The proposed development is an intensification of industrial and shipping activities compared to the approximately last 10 years at this location on Glebe Island, but it is not reasonable to characterise this as a re-industrialisation of Glebe Island – since Glebe Island has always been an industrial shipping and maritime precinct, and currently retains that character.
- The proposed development does not prevent the delivery of the Bays Precinct transformation plans at the appropriate time, but enables the site to be used for its highest and best use until the transformation occurs.
- The proposed development has been specifically designed to mitigate and ameliorate potential impacts that may be associated with developments of this type, including visual impacts, air quality impacts, traffic impacts, and noise impacts.
- The proposed development has been properly assessed against relevant air quality and noise standards and guidelines and is able to comply with the requirements of these standards. In particular, the facility would be subject of strict noise emissions limits proposed by the EPA in relation to both land side industrial activities (until such time as a precinct-wide management approach has been agreed with the EPA and implemented by the Port Authority) and ship noise (until the Port Authority's Vessel Noise Operating Protocol is finalised), which in both cases represents best practice noise minimisation and mitigation measures.
- Hanson will undertake detailed investigations of green walls, public art strategies and landscaping strategies as part of the detailed design process, and to involve the community in these processes.
- Hanson will operate environmental monitoring and management plans to ensure environmental standards are met, and will be regulated by the EPA, the Department of Planning, Industry and Environment, and the Port Authority in this regard – in particular in relation to air, noise, water and light pollution.
- Cumulative traffic impacts on the main road network around the port will require active management whilst Glebe Island and White Bay is used as major construction and tunnel support sites for WestConnex, Western Harbour Tunnel and Sydney Metro West. Hanson will liaise with TfNSW and the Port Authority through the Sydney Coordination Office, to contribute to this active management.

No changes to the design of the facility or operational principles are proposed as a result of this further response to the issues raised in submissions. The schedule of mitigation measures provided at Section 5 of the Response to Submissions Report remains relevant and suitable with only one additional amendment, as follows:

- In a road only operating scenario (i.e. when Hanson is unable to deliver aggregates to the facility by ship), Hanson commits to operating the facility so that it does not exceed 182 truck movements per hour in any 1-hour period until further impact assessment has been carried out to the satisfaction of Transport for NSW, the Environment Protection Authority, and the Secretary of the Department of Planning, Industry and Environment.

It is therefore requested that the Department of Planning, Industry and Environment now move to complete its assessment of the application, and finalise its recommendation for the Independent Planning Commission.