

20 June 2019

Chris Ritchie
Director Industry Assessment
Department of Planning & Environment
23-33 Bridge Street
SYDNEY NSW 2000

Dear Chris,

DEXUS QUARRYWEST PROJECT (SSD 6801) – SECTION 4.55 MODIFICATION (MOD 9) – STATEMENT OF ENVIRONMENTAL EFFECTS

1 Introduction

On 20 October 2015, the Department of Planning & Environment (the Department), as delegate of the Minister for Planning, approved a development application from DEXUS Quarry WEST Subtrust (DEXUS) under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), for the QuarryWEST Project within the Greystanes Southern Employment Lands (Greystanes SEL).

The approval allows the development of the QuarryWEST Estate comprising a range of industrial (warehousing and distribution, with ancillary office and light industry) and business (retail) facilities across the site. The originally approved estate masterplan is shown on **Figure 1**. The estate is being developed on a staged basis in line with the securing of end-users for the facilities and/or market demand.



Figure 1: QuarryWEST Masterplan – As Originally Approved (Source: Nettleton Tribe)



DEXUS has since constructed most components of the QuarryWEST project, including:

- the internal roads (ie. Basalt Road, Dolerite Way and Charley Close cul-de-sac¹) and associated earthworks, infrastructure and services; and
- the buildings in:
 - Precinct E, including Warehouses E1 to E4;
 - Precinct B, including Warehouses B1 to B3;
 - Precinct A, including Warehouses A1 and A2; and
 - Precincts C and D, including Warehouses C, D1 and D2.

In late 2017, Hannas Contracting Services (Hannas) purchased the remaining precinct within the estate, Precinct F, from DEXUS. Hannas has renamed the Precinct F site as the Bluestone Industrial Estate, and is currently undertaking detailed design and early works for the development of the precinct.

The development consent has been modified seven times to accommodate the facilities in the QuarryWEST and Bluestone estates, including:

- MOD 1 – approved by the Department on 16 June 2016. This modification involved minor changes to the layout of the facilities in Precincts A, B and E;
- MOD 2 – approved by the Department on 20 September 2016. This modification involved minor changes to the layout of the facilities in Precinct B, including alterations to the layout of Warehouses B2 and B3;
- MOD 3 – approved by the Department on 25 April 2017. This modification involved minor changes to the layout of the facilities in Precinct B, including further alterations to the layout of Warehouses B2 and B3;
- MOD 4 – approved by the Department on 10 August 2017. This modification involved minor changes to the layout of the facilities in Precinct A;
- MOD 5 – approved by the Department on 20 December 2017. This modification involved changes to the use and layout of Precincts C and D;
- MOD 6 – approved by the Department on 8 June 2018. This modification by Hannas involved changes to the layout of Precinct F, including development of 5 small warehouse facility buildings; and
- MOD 7 – approved by the Department on 5 February 2019. This modification by DEXUS involved minor changes to the layout of Precincts C and D.

In May 2019, DEXUS lodged a further modification application with the Department (MOD 8), involving some minor internal changes in Precinct E. That application is yet to be determined.

The modified estate masterplan (based on the MOD 7 layout) is shown on **Figure 2**, and the approved layout of Precinct F, which is the subject of the proposed modification, is shown on **Figures 3 to 5**.

Since the approval of MOD 6, Hannas has undertaken detailed design for Precinct F, but is yet to commence construction of the buildings in the precinct. The detailed design work has identified the need for some relatively minor changes to the approved buildings within the precinct. These changes are described in Section 2, and in summary include:

- altering the size and layout of Building A, including breaking up the building into 3 detached buildings and reducing the overall size of the building;
- consolidating Building B into a single tenancy unit;
- removing the majority of Building C, including the upper level; and

¹ Dolerite Way was formerly known as Dolerite Close, and Charley Close was formerly known as Bellevue Circuit.



- reducing the amount of excavation in the precinct.

This Statement of Environmental Effects (SEE) has been prepared by PJEP Environmental Planning (PJEP) to support the modification application for the proposed changes under Section 4.55 of the EP&A Act.

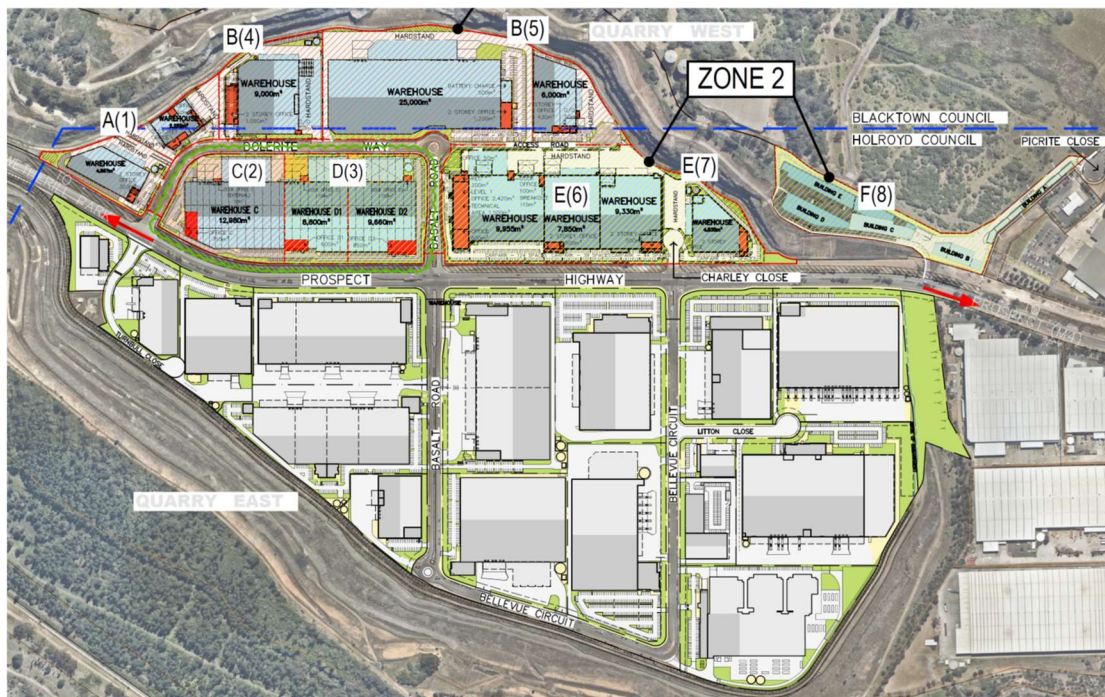


Figure 2: QuarryWEST Masterplan – As Currently Approved (Source: Netleton Tribe)

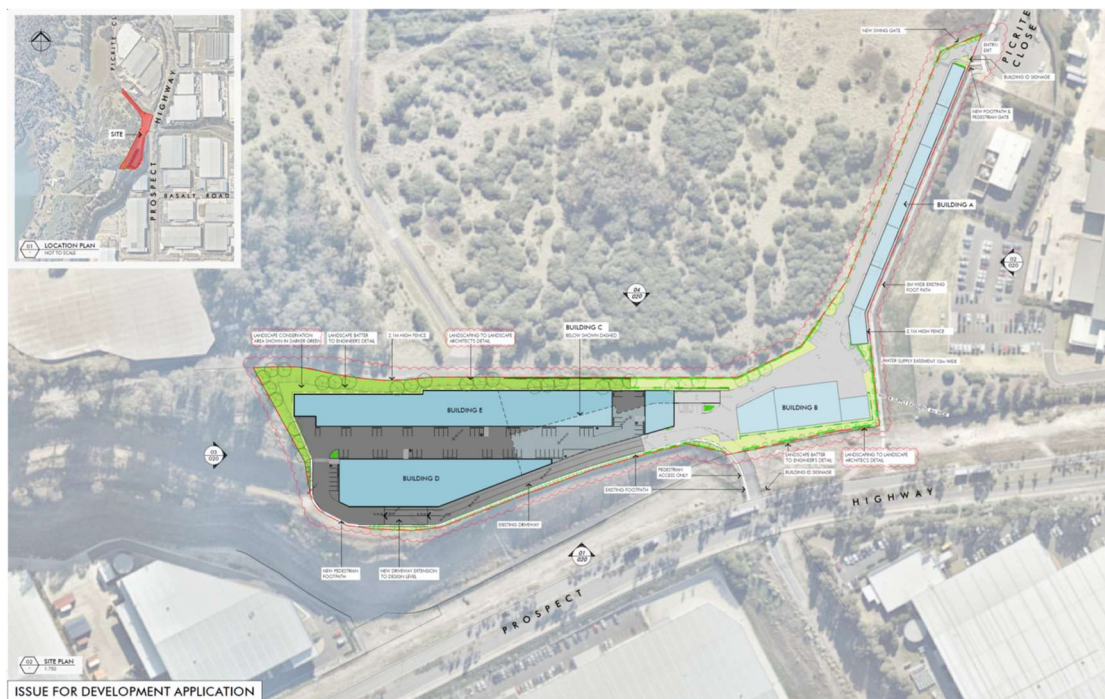
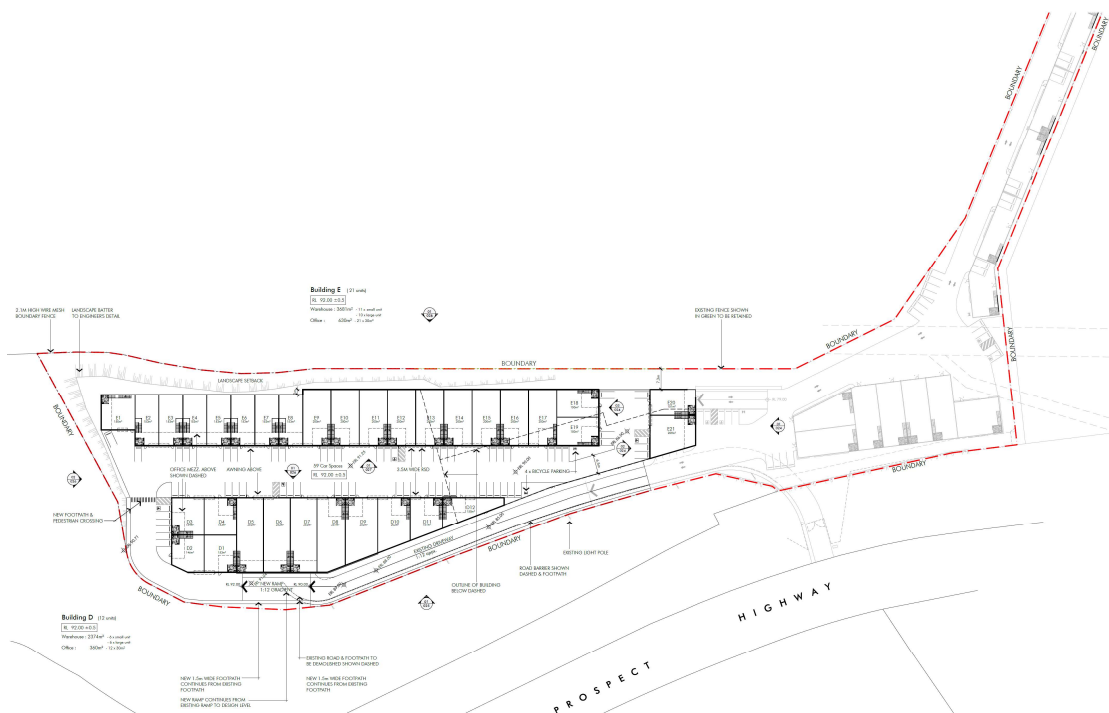
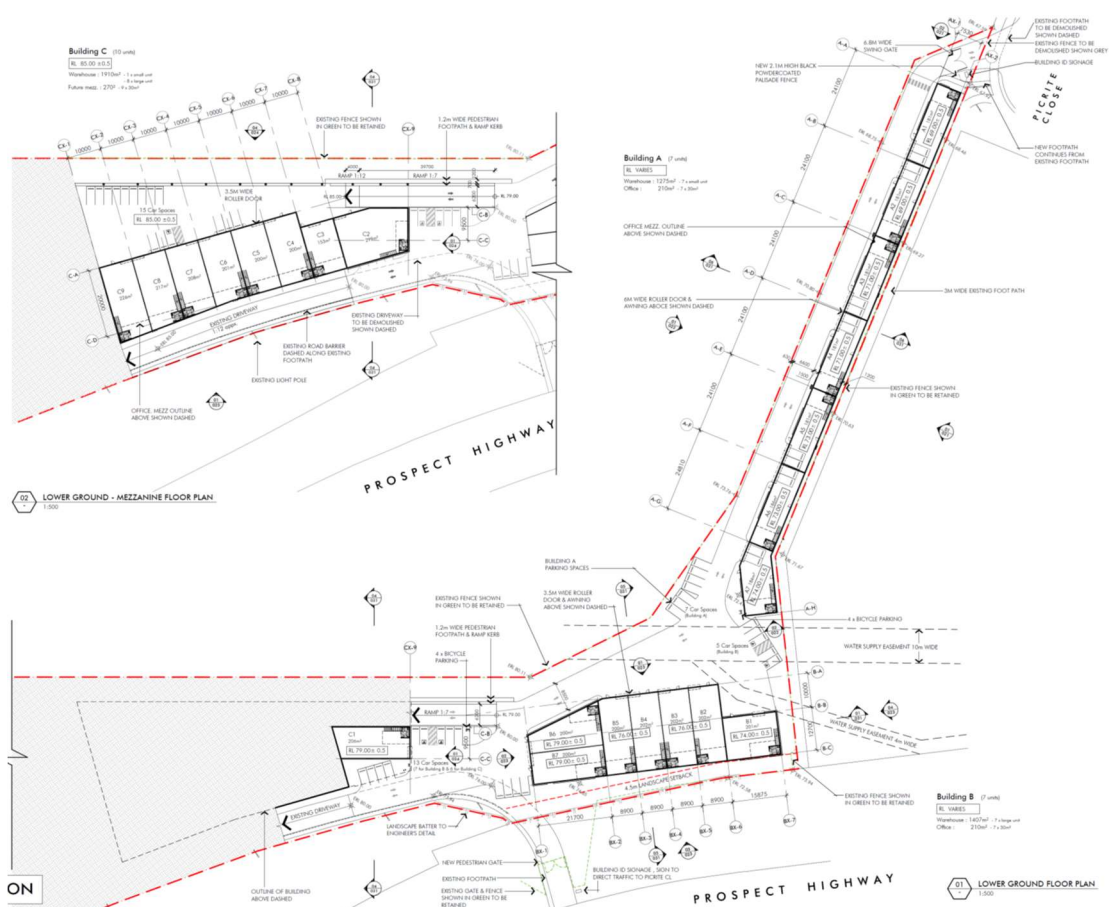


Figure 3: Precinct F Site Plan – As Currently Approved (Source: Netleton Tribe)





2 Proposed Modifications

Proposed Changes to the QuarryWEST Project

Hannas proposes to modify the development consent for the QuarryWEST Project to amend the internal masterplan layout in Precinct F, including:

- altering the size and layout of Building A, including:
 - breaking up the building into 3 detached buildings;
 - reducing the size of the tenancy units, and increasing the number of units from 7 to 12; and
 - reducing the overall size of the building;
- consolidating Building B into a single tenancy unit, from the 7 approved units;
- removing the majority of Building C, including the upper mezzanine level;
- minor changes to some building materials and layout, and changes to internal circulation and parking; and
- reducing the amount of excavation, which would raise the pad level by approximately 0.5m, but not increase the maximum building RL (which had a $\pm 0.5\text{m}$ tolerance on the approved plans).

The proposed modifications do not involve any change to other precincts within the QuarryWEST Estate, or changes to the broad layout of the estate (including internal roads and access).

The amended Precinct F layout plan is shown on **Figure 6**, and representative floor plans, elevations and perspectives for the facilities are shown on **Figures 7 to 10**. A full set of revised architectural design plans is attached in **Appendix A**, and revised landscape design plans and civil design plans are attached in **Appendix B** and **Appendix C**, respectively.



Figure 6: Precinct F Site Plan – As Proposed (Source: Nettleton Tribe)

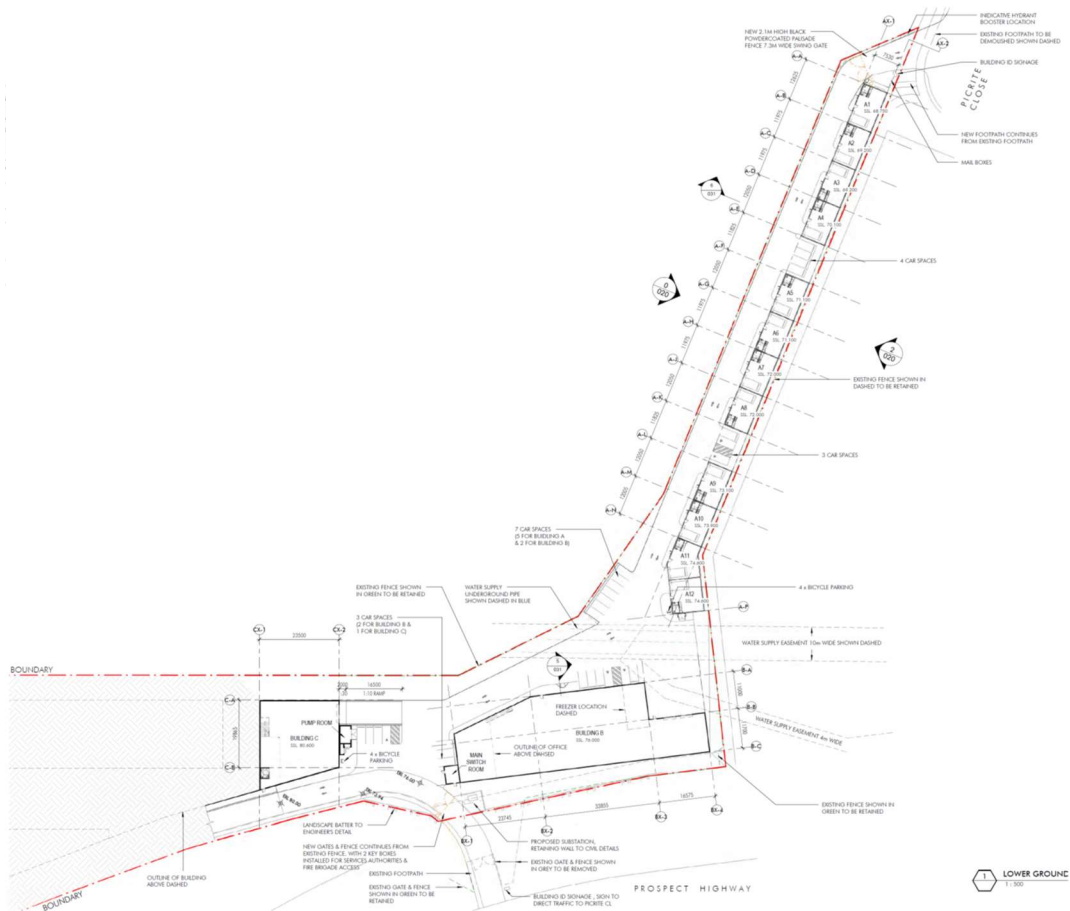


Figure 7: Precinct F Lower Ground Floor Plan – As Proposed (Source: Nettleton Tribe)

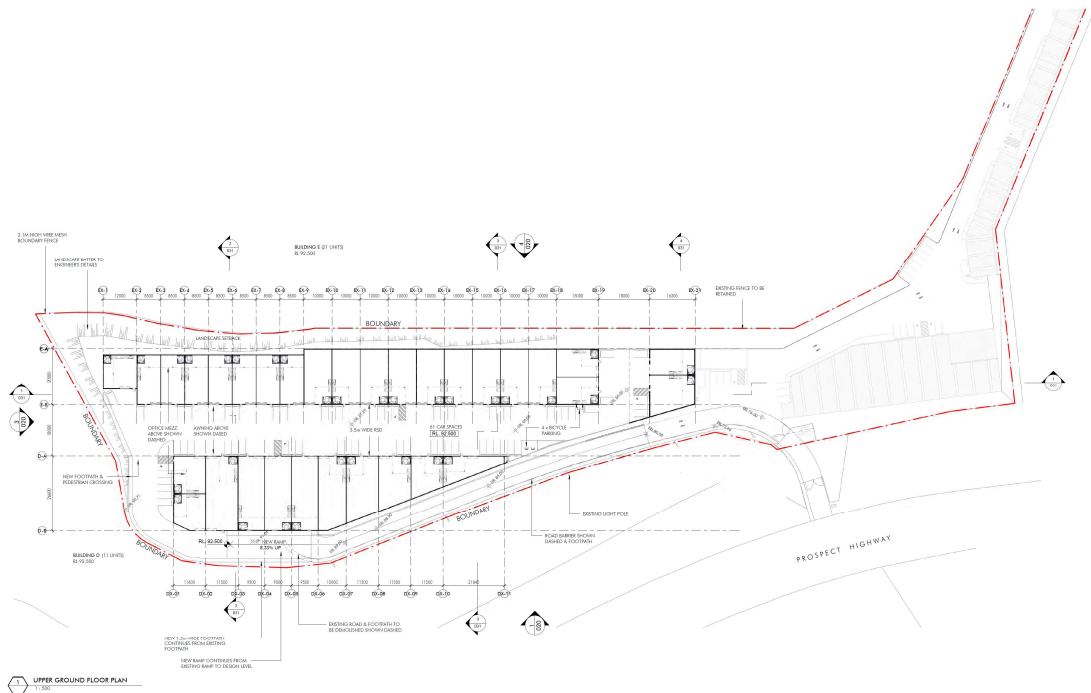


Figure 8: Precinct F Upper Ground Floor Plan – As Proposed (Source: Nettleton Tribe)



Figure 9: Precinct F Representative Elevations – As Proposed (Source: Nettleton Tribe)

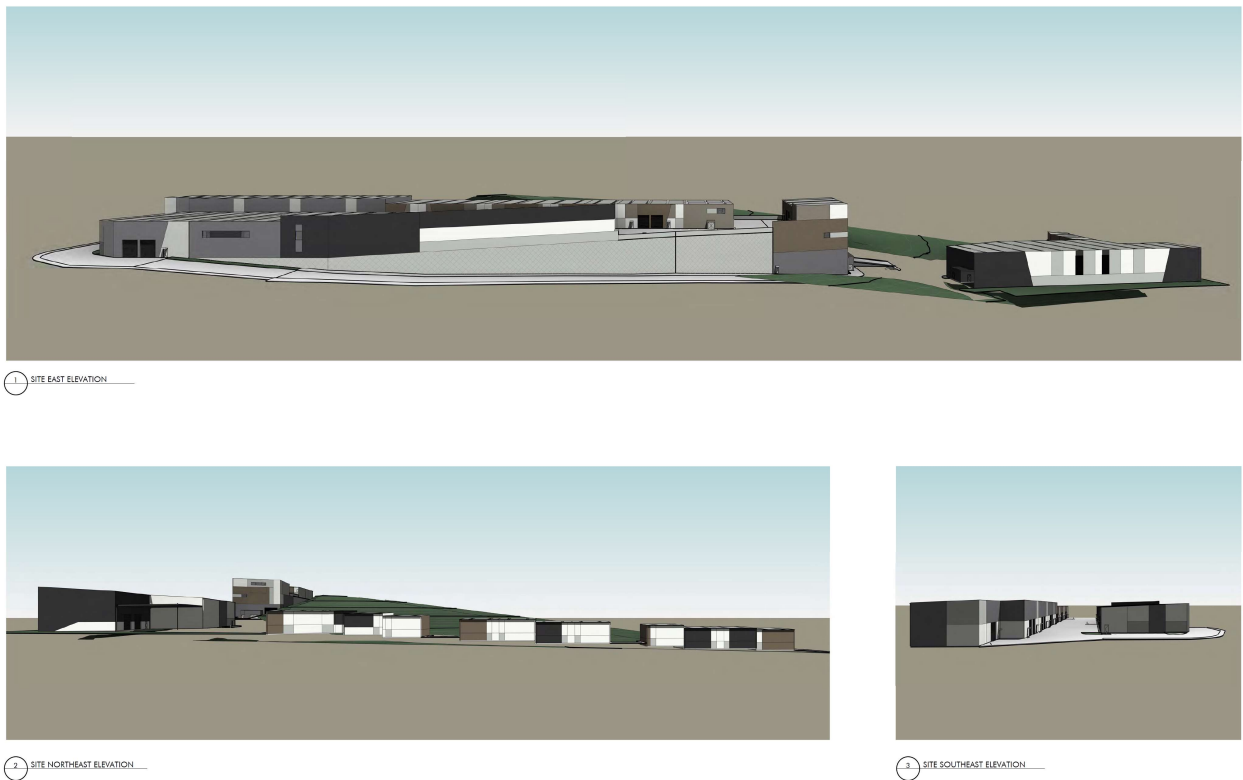


Figure 10: Precinct F Representative Perspectives – As Proposed (Source: Nettleton Tribe)



Table 1 provides a development schedule comparing the approved project and the proposed modification². For the purposes of consideration against the provisions of the concept plan in Section 3 below, the table includes consideration of the areas within the industrial and business zones/precincts as defined in the *State Environmental Planning Policy (State Significant Precincts) 2005* (see **Figure 11**) and the Greystanes SEL concept plan. Additional development data schedules for each individual lot are provided in **Appendix D**.

Table 1: Development Schedule

Development Data	Industrial Precinct ¹		Business Precinct ¹		Total		
	Approved	Proposed	Approved	Proposed	Approved	Proposed	Change
Areas (m ²)							
- Site Area (exc. Roads) ²	122,298	122,298	120,130	120,130	242,428	242,428	No change
- Warehouse Area	58,066	56,592	63,410	63,410	121,476	120,002	-1,474
- Industrial Area	100	100	1,500	1,500	1,600	1,600	No change
- Bulky Goods/Counter Area	212	212	0	0	212	212	No change
- Office Area	5,245 (8%)	4,786 (8%)	7,405 (10%)	7,405 (10%)	12,650 (9%)	12,191 (9%)	-456
- Retail Area ³	0	0	0	0	0	0	No change
- Food & Drink Premises Area ³	0	0	0	0	0	0	No change
- Total Building Area	63,623	61,690	72,315	72,315	135,938	134,005	-1,933
- Awning Area	8,616	8,719	10,785	10,785	19,402	19,505	+103
- Hardstand Area (heavy & light)	43,814	44,768	37,198	37,198	81,012	81,966	+954
- Landscaping Area	15,418 (13%)	15,418 (13%)	12,328 (10%)	12,328 (10%)	27,746 (11%)	27,746 (11%)	No change
Site Cover (inc. awning)	57%	56%	65%	65%	61%	60%	-1%
Floor Space Ratio	52%	50%	60%	60%	56%	55%	-1%
No. office levels	1-2	1-2	1-2	1-2	1-2	1-2	No change
Building Height (m)	13.7-20.3	13.7-20.3	8 to 14.6	8 to 14.6	8 to 20.3	8 to 20.3	No change
Car Parking Spaces Required ⁴	333	318	416	416	749	734	-15
Car Parking Spaces Provided	456	455	454	454	910	909	-1
Employees ⁵	433	432	431	431	865	864	-1
Hours of Operation	24 hrs, 7 days	24 hrs, 7 days	24 hrs, 7 days	24 hrs, 7 days	24 hrs, 7 days	24 hrs, 7 days	No change

Notes to Table 1:

- 1 The Industrial Precinct covers Lots 1, 4, 5 & 8 (ie. Precincts A, B & F). The Business Precinct covers Lots 2, 3, 6 & 7 (ie. Precincts C, D & E) (see Figure 11)
- 2 Total site area including roads is approximately 255,890m²
- 3 Retailing and food related uses were removed in MOD 5
- 4 Based on the parking controls in the development consent (condition C5) and the State Significant Precincts SEPP, namely 1 space per 300m² of warehouse floor space, 1 space per 77m² of industrial space, 1 per 40m² of office floor space and 1 space per 20m² of retail floor space. Parking rates for other uses based on the Holroyd DCP 2013, namely 1 space per 50m² of floor space for bulky goods, and 1 space per 8m² of floor space for food and drink premises.
- 5 Estimate only (based on 95% of car parking spaces)

² It is noted that the modifications to Precinct E in MOD 8 do not change any floor areas or other development data.



Proposed Changes to Approval Instrument

The proposed modification would require only minor amendments to the development consent instrument, including amendments to:

- *Condition B2 – Terms of Consent:* to add reference to the modification application and/or this SEE;
- *Condition B6 – Limits of Consent:* to amend the total building area for warehouse and distribution uses, including ancillary office area (to 132,193m²); and
- *Appendix 1 – Schedule of Approved Drawings:* to update the schedule to reflect the amended drawings.

3 Planning Context

State Significant Development

The QuarryWEST Project is classified as State Significant Development under Part 4, Division 4.7 of the EP&A Act, as it involves development with a capital investment value of more than \$50 million for the purposes of warehouses or distribution centres, and therefore triggers the criteria in Clause 12 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011*.

Consequently, the Minister for Planning was the consent authority for the original development application.

Section 4.55 of the EP&A Act

As the Minister for Planning was the consent authority for the original development application, he is therefore the consent authority for the proposed modification.

Under Section 4.55(1A) of the EP&A Act, a consent authority may modify a development consent if it:

- (a) is satisfied that the proposed modification is of minimal environmental impact;
- (b) is satisfied that the development as modified is substantially the same development as the development as originally granted;
- (c) has notified the application in accordance with the regulations or a development control plan, if required; and
- (d) has considered any submissions made concerning the proposed modification.

It is considered that the proposal represents a minor modification of the development as originally approved, as it:

- does not affect the predominant approved use of the QuarryWEST project (ie. warehousing and distribution, with smaller amounts of industry);
- does not involve any significant change to the broad layout of the QuarryWEST project (including the road layout and broader site layout) or to Precinct F;
- does not significantly affect the development's consistency with any environmental planning instrument (see below); and
- would not result in any significant environmental effects (see Section 4).

Consequently, it is considered that the development as modified is substantially the same development as that originally granted, and can be considered and determined as a minor modification under Section 4.55(1A) of the EP&A Act (or alternatively under Section 4.55(2) of the Act).



Environmental Planning Instruments

The proposal is considered able to be undertaken in a manner that is generally consistent with applicable environmental planning instruments. Consideration of applicable instruments is presented in the following table.

Table 2: Consideration of Environmental Planning Instruments

Instrument	Consideration
<i>SEPP (State Significant Precincts) 2005³</i>	<p>The Greystanes SEL is listed as a State significant precinct under Part 22 of Schedule 3 of the State Significant Precincts SEPP. The QuarryWEST Estate site is zoned IN2 Light Industrial and B7 Business Park under Schedule 3 (clause 6, Part 22) of the SEPP. Precinct F is within the IN2 zoned area (see Figure 11).</p> <p>The proposed modification does not change the predominant approved uses of the QuarryWEST project (ie. warehousing and distribution, and light industry). Warehousing and distribution facilities (and light industries) are permissible with consent in both the IN2 and B7 zones.</p> <p>Part 22 of Schedule 3 of the SEPP outlines a number of principal development standards and provisions related to development in the Greystanes SEL. A review of the proposed modification against these development standards is presented in Table 3 below.</p> <p>As indicated in the table, the proposed modification would not change the approved development's consistency with the applicable development standards under the SEPP.</p>
<i>SEPP (Infrastructure) 2007</i>	<p><i>SEPP (Infrastructure) 2007</i> aims to facilitate the effective delivery of infrastructure across the State.</p> <p>Clause 104 of the SEPP applies to traffic generating development and ensures that Roads and Maritime Services (RMS) is given the opportunity to make representations on certain traffic generating development applications before a consent authority makes a determination on the proposal.</p> <p>The QuarryWEST project meets the thresholds in schedule 3 of the SEPP (as industry with an area of over 20,000m²), and is therefore traffic generating development for the purposes of the SEPP. The RMS has been consulted in relation to the broader QuarryWEST project.</p> <p>The proposed modification would not alter the existing road network servicing the estate, or significantly affect traffic associated with the estate (see Section 4).</p>
<i>SEPP 33 – Hazardous and Offensive Development</i>	<p>SEPP 33 provides definitions for hazardous and offensive industry to enable decisions on developments to be made on the basis of merit, rather than on industry type per se.</p> <p>The proposed modification does not involve any significant change to dangerous goods or hazardous materials storage associated with the</p>

³ Formerly SEPP (Major Development) 2005



<i>Instrument</i>	<i>Consideration</i>
	<p>approved project, which is not considered to constitute a 'potentially hazardous industry' or 'potentially offensive industry' under SEPP 33.</p> <p>As required under the development consent (Conditions C21 and C22 of Schedule C), the applicant is required to ensure that dangerous goods storage does not exceed the thresholds in the Department's <i>Applying SEPP 33</i> guidelines, and to store and handle all dangerous goods in accordance with relevant Australian Standards.</p>
<i>SEPP 55 – Remediation of Land</i>	<p>SEPP 55 aims to provide for a statewide planning approach to the remediation of contaminated land, and in particular, to promote the remediation of contaminated land for the purpose of reducing risk of harm to human health or any other aspect of the environment.</p> <p>Clause 7 of the SEPP requires a consent authority to consider whether the land to which a proposal is contaminated, and if the land is contaminated, to be satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation), prior to granting consent.</p> <p>The proposed modification does not involve any change to the approved project area, any change to a more sensitive land use, or affect any known contaminated land. Condition C7 of schedule C of the development consent for the QuarryWEST project required DEXUS to submit a Site Audit Statement prior to the commencement of construction in each relevant part of the site, certifying that the relevant part of the site is suitable for the intended land use. Site Audit Statements confirming that the entirety of the QuarryWEST site is suitable for its intended land use were submitted to the Department on 18 November 2015.</p>
<i>SEPP 64 – Advertising and Signage</i>	<p>SEPP 64 aims to ensure that any signage associated with a development, including any advertisement, that is visible from a public place is compatible with the desired amenity and visual character of an area, is suitably located and is of a high quality and finish.</p> <p>The proposed modification does not involve any significant changes to broad signage for the QuarryWEST Estate or to Precinct F, although the location of signage for the buildings in the precinct would be amended slightly with the proposed changes to layout of the precinct.</p> <p>Condition C27 of schedule C of the development consent required DEXUS to prepare and implement a detailed Signage Strategy for the estate prior to the installation of permanent signage on the site. The Estate Signage Strategy was approved by the Department on 27 June 2016.</p> <p>As outlined in the MOD 6 application, Hannas will prepare a specific Signage Strategy for the Precinct F site prior to the installation of any permanent signage on the site, in accordance with Condition C27 of the development consent. The strategy will be prepared in consultation with Council and to the satisfaction of the Department.</p>

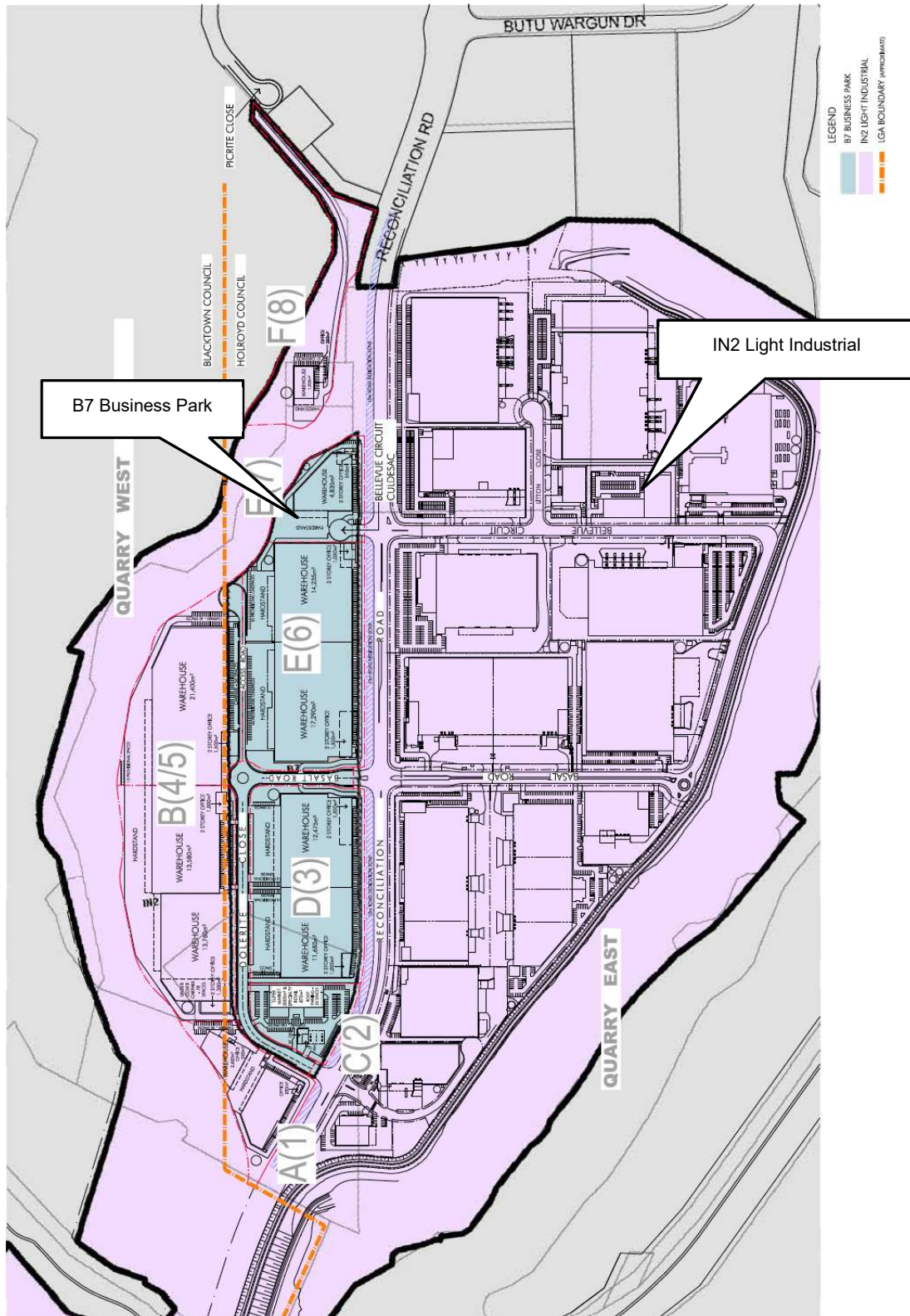


Figure 11: Zoning Plan (showing original masterplan layout) (Source: Nettleton Tribe)



Table 3: State Significant Precincts SEPP Development Standard Compliance

Clause (Part 22, Sch.3)	Issue	Key Controls Summary	Complies (Yes or No)	Comments / EA Reference
13	Building Height	<ul style="list-style-type: none"> Maximum height in B7 zone is 25 metres Maximum height in IN2 zone is 15 metres 	No (existing non-compliance)	<ul style="list-style-type: none"> The approved development generally complies, apart from Warehouse B2 in the IN2 zone which has an approved height of 17.4 metres, and the buildings in Precinct F, which have a combined height of up to 20.3 metres The changes proposed in Precinct F do not change to the approved maximum building heights, although they would reduce building height for Building C
14	Gross Floor Area (GFA)	<ul style="list-style-type: none"> Maximum GFA in B7 zone is 104,000m², of which: <ul style="list-style-type: none"> max. of 6,500m² for retail premises, service stations and vehicle repair stations, with a max. pub GFA of 2,500m² and max. supermarket GFA of 2,000m²; max. GFA for other uses of 97,000m²; and min. GFA of 3,000m² for any building containing office premises; Maximum office GFA in IN2 zone is: <ul style="list-style-type: none"> 50%, for lots within 400 metres of bus stop; and 30%, for lots more than 400 metres of bus stop. 	Yes	<ul style="list-style-type: none"> The proposal does not involve any change to GFA in the B7 zone The proposed warehouses in the IN2 zone have ancillary office components less than 30%
15	Floor Space Ratio	<ul style="list-style-type: none"> Maximum floor space ratio in IN2 zone is 0.75:1 	Yes	<ul style="list-style-type: none"> The proposed amended warehouses in Precinct F have a combined FSR of 0.45:1 The amended masterplan has an overall FSR of 0.50:1 in the IN2 zone
16	Hotel Accommodation	<ul style="list-style-type: none"> Development of a hotel is permissible on Precinct F, subject to: <ul style="list-style-type: none"> GFA not exceeding 5,000m²; Height not exceeding 25 metres; and FSR not exceeding 1:1 	Yes	<ul style="list-style-type: none"> The project does not involve hotel development



Clause (Part 22, Sch.3)	Issue	Key Controls Summary	Complies (Yes or No)	Comments / EA Reference
17	Child Care Centres	<ul style="list-style-type: none"> Not applicable 	Yes	<ul style="list-style-type: none"> The project does not involve child care centre development
18	Car Parking	<ul style="list-style-type: none"> Car parking rates include: <ul style="list-style-type: none"> Warehouses or distribution centres, 1 space per 300 m²; Light industry, 1 space per 77m²; Offices, 1 space per 40m²; Retail, 1 space per 20m² 	Yes	<ul style="list-style-type: none"> The proposed modification has been designed to comply with the applicable car parking rates – see Section 4.
21	Design Excellence	<ul style="list-style-type: none"> Requires buildings to achieve a high level of architectural design merit 	Yes	<ul style="list-style-type: none"> The proposed amended facilities have been designed by respected industrial architects Nettleton Tribe
22	Architectural Roof Features	<ul style="list-style-type: none"> Allows decorative architectural roof elements above the maximum building height under certain circumstances 	Yes	<ul style="list-style-type: none"> The development does not involve architectural roof elements above the maximum building heights
23	Public Utility Infrastructure	<ul style="list-style-type: none"> Requires infrastructure to be provided, including potable water, electricity, gas and sewerage 	Yes	<ul style="list-style-type: none"> All required infrastructure for the Greystanes SEL has been approved

As outlined in the above table, the proposed modified masterplan complies with all of the development standards in the SEPP, apart from an existing non-compliance with building height for one building (Warehouse B2) located within Precinct B, and the combined height of the buildings in Precinct F. These non-compliance have been approved previously (as part of MOD 3 and MOD 6), and the proposed modification does not involve any further non-compliance in this regard.

It is noted that the individual buildings proposed in Precinct F have relatively modest building heights, with maximum heights (from finished ground levels) including:

- Building A – 7 metres;
- Building B – 10.3 metres;
- Building C – 11.9 metres;
- Building D – 9.5 metres; and
- Building E – 8.9 metres.

However, given the stepped nature of the buildings up the slope of the site, the combined building height in the area where Building C overlaps with Buildings D and E is up to approximately 20.3 metres in one area of the site, which exceeds the 15 metre development standard. The proposed modification does not change this existing non-compliance.

Greystanes SEL Concept Plan and Urban Design Plan

Consideration of the proposed modification against the relevant provisions of the Greystanes SEL concept plan – including the concept plan approval and the development controls under the Greystanes SEL Urban Design Plan (UDP) – is provided in **Appendix E**.



In summary, it is considered that the project as modified remains generally consistent with the concept plan. The only departures from the development standards in the concept plan and UDP remain similar to those departures already identified for the approved project, which include:

- setbacks in some areas of the site;
- streetscape, in particular the width of Basalt Road;
- building heights adjacent Basalt Road and for Warehouse B2; and
- landscaping areas for lots in the business precinct.

The proposed modification does not involve any change to these existing departures. It is noted that the UDP allows building heights of up to 25 metres in Precinct F (unlike the SEPP, the UDP does not restrict the 25 metre height allowance to hotel development only).

4 Environmental Issues

Consideration of the environmental effects of the proposed modification is presented in the following table.

In summary, it is considered that the proposal would not result in any significant change to the environmental effects of the project as approved.

Table 4: Consideration of Environmental Effects

Issue	Consideration
<i>Design and Visual</i>	<p>It is considered that the proposed modifications to the layout of the QuarryWEST masterplan would not result in any significant adverse impacts to the design quality of the project or visual amenity of the locality as a whole.</p> <p>The proposed amendments to the buildings in Precinct F are relatively minor, and are not expected to result in any significant adverse local visual impacts.</p> <p>The proposed changes to Building A would reduce the bulk and scale of the approved building, by breaking up the building into 3 smaller buildings, and reducing the overall floor area.</p> <p>The proposed consolidation of the tenancy units in Building B would not result in any significant change to the design of the building or the visual amenity of the area.</p> <p>The proposed reduction in size of Building C, and site excavation, would also not result in any significant adverse changes to the design quality or visual impacts of the development, given that the proposal would not change maximum building heights. Indeed, the reduction in excavation would likely reduce visual change somewhat.</p> <p>A specialist visual assessment was undertaken for Precinct F in the MOD 6 application by Richard Lamb & Associates, given the proposed changes to the building heights and scale in the precinct.</p> <p>Based on visual effects and sensitivity analysis, the visual assessment concluded that the modifications approved in MOD 6 would have low visual (and heritage) impacts on the existing and future surrounding context, particularly given:</p> <ul style="list-style-type: none">• the high physical absorption capacity of the site and surrounds for the proposed development, due to the excavated nature of the site and its industrial setting;• the high compatibility of the proposal with the existing and future character of the site and surrounding area; and• the low overall visual constraints associated with the site.



Issue	Consideration
Soil and Water	<p>Erosion and Sedimentation</p> <p>The proposed modification does not involve any change to the approved disturbance area of the project, and as such would not change the erosion and sedimentation risks.</p> <p>As required under the development consent, Hannas will implement and maintain erosion and sediment control measures in accordance with Landcom's (2004) <i>Managing Urban Stormwater: Soils and Construction</i> manual (the 'Blue Book').</p> <p>Site Contamination</p> <p>The proposed modification does not involve any change to the approved disturbance area of the project, and as such does not change the risks associated with potential site contamination.</p> <p>As required under the development consent, DEXUS was required to provide a Site Audit Statement to the Department certifying that the relevant part of the site is suitable for commercial/industrial development, prior to construction of the relevant facility. Site Audit Statements confirming that the entirety of the QuarryWEST site is suitable for its intended land use were submitted to the Department on 18 November 2015.</p> <p>Groundwater Management</p> <p>The proposal is not expected to result in any significant change to groundwater flows or quality within the QuarryWEST Estate, or affect the operation of the existing Groundwater Management Strategy for the Greystanes SEL.</p> <p>This Groundwater Management Strategy details measures to drain and treat groundwater from the base of the quarry. The strategy forms part of the concept plan approval, and the construction of the groundwater management infrastructure has been approved as part of Boral's Greystanes SEL project approval (refer to the EIS for the original QuarryWEST project for further information). The proposed modification would not affect this existing groundwater management strategy.</p> <p>Stormwater Management</p> <p>As detailed in the EIS for the approved QuarryWEST project, the Greystanes SEL concept plan provides for a detailed Stormwater Management Strategy for the employment lands. The plan was designed to manage both the quality and quantity of surface water flow in a sustainable manner prior to its ultimate discharge to Prospect Creek. The strategy includes:</p> <ul style="list-style-type: none">• on-site treatment (business precinct only);• gross pollutant traps in lots;• stormwater drains/pipes in the internal road network;• vegetated open bio-filtration channels around the perimeter of the estate; and• a precinct detention basin at Widemere East, along with a 5 megalitre harvesting dam. <p>The perimeter stormwater channels and the precinct detention basin have been designed to convey stormwater events up to the 100 year ARI event, with discharge maintained at pre-development levels to minimise the risk of flooding.</p> <p>The 5 megalitre harvesting dam at Widemere East has been designed to collect and store peak low stormwater flows for pumping to the Cumberland Country Golf Club for re-use purposes. Boral, DEXUS and the golf club have entered into an agreement for the water re-use, which includes a minimum 25 year contractual obligation for water harvesting by the golf club.</p> <p>The Stormwater Management Strategy (and an accompanying Stormwater Maintenance Plan) forms part of the concept plan approval, and the construction of the estate stormwater infrastructure has been approved as part of Boral's Greystanes SEL project approval. The Stormwater Maintenance Plan includes a stormwater monitoring program for the estate.</p>



Issue	Consideration
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The EIS for the approved QuarryWEST project included a stormwater concept prepared by Costin Roe Consulting, in accordance with the wider Stormwater Management Strategy for the Greystanes SEL.

The stormwater concept included a series of bio-retention basins in the landscaping areas throughout the QuarryWEST site⁴, providing a total of 3,000m² of bio-retention. Modelling undertaken in the EIS demonstrated that the concept would comply with the applicable stormwater quantity and quality requirements.

For the MOD 6 application, Costin Roe amended the stormwater concept to reflect the changes to the layout of Precinct F, and reviewed the concept to confirm its consistency with the approved stormwater management strategy.

The review noted that the Precinct F site is divided into two catchments, as shown on **Figure 12**.



Figure 12: Stormwater Catchment Plan (Source: Costin Roe)

Catchment A covers the majority of the Precinct F site (2 hectares), and drains to the established estate stormwater system, which includes the 3,000m² of bio-retention and the Widemere East detention basin. Catchment B covers a small area (0.3 hectares) in the northern part of the site, and drains directly to Cumberland Council's stormwater infrastructure in Picrite Close.

In accordance with the estate stormwater strategy, runoff from Catchment A requires pre-treatment only before discharging to the estate stormwater system. This was approved to be provided via two Rocla CDS units (or equivalent) located in the southern and eastern areas of the site.

Catchment B requires additional stormwater management measures due to the catchment not draining to the estate stormwater management system. In this regard, a Rocla CDS unit (or equivalent) and underground detention tank is approved to be provided at the northern end of the

⁴ None of these bio-retention basins are located in Precinct F.



Issue	Consideration																							
	<p>site to service flows from this catchment. The on-site detention system will provide storage of at least 178m³, which has been designed in accordance with Cumberland Council’s <i>Holroyd City On-Site Stormwater Detention Policy 2015</i>.</p> <p>The stormwater review undertaken for MOD 6 also noted that the original Stormwater Management Strategy and stormwater modelling for the QuarryWEST estate was based on the development lots providing an impervious area of up to 86% and a pervious/landscaped area of 14%. This requirement is applicable to Catchment A of Precinct F, which drains to the Widemere East detention basin.</p> <p>The approved layout of Precinct F achieves a total landscaped area 22% for Catchment A (and 19% for the whole site), which comfortably meets the pervious/landscaped area standard.</p> <p>Xavier Knight has prepared an updated stormwater concept plan for the proposed modification, and reviewed the plan against the approved stormwater system (see Appendix C). Whilst splitting Catchment A into two sub-catchments (and renaming Catchment B to Catchment C), the review confirms that the updated stormwater plan for Precinct F is similar to the plan approved under MOD 6, and is consistent with the stormwater management planning for the wider estate. It is noted that the proposed modification would not result in any change to the impervious area of the site.</p> <p>As required under the development consent (Condition D3 of Schedule D), Hannas is required to prepare a specific Stormwater Management Plan for the facilities to the satisfaction of the Department, prior to the commencement of construction of the facilities.</p>																							
Noise	<p>A noise impact assessment was undertaken as part of the EIS for the QuarryWEST project, which found that the project would comfortably comply with the applicable construction, operation, sleep disturbance and traffic noise criteria at the nearest sensitive receiver locations, namely the residential area of Nelsons Ridge to the east of the quarry. The predicted operational noise levels are reproduced in Table 4A below.</p> <p>The comfortable compliance is largely due to the nature of the Greystanes SEL site, which is separated from surrounding land uses by the walls of the former Prospect Quarry. These walls, at up to 60 metres high, act to effectively attenuate noise emissions.</p> <p>Table 4A: Operational Noise Predictions, dB_{LAeq}(15min)</p> <table><tr><th rowspan="2">Receiver Location</th><th rowspan="2">Predicted Noise Level</th><th colspan="3">Intrusive Noise Criteria</th></tr><tr><th>Day</th><th>Evening</th><th>Night</th></tr><tr><td>Nelsons Ridge A</td><td>16</td><td></td><td></td><td></td></tr><tr><td>Nelsons Ridge B</td><td>20</td><td>40</td><td>42</td><td>38</td></tr><tr><td>Nelsons Ridge C</td><td>15</td><td></td><td></td><td></td></tr></table> <p><i>Note: With regard to time periods:</i></p> <ul style="list-style-type: none">• Day is the period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and public holidays;• Evening is the period from 6pm to 10pm; and• Night is the period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and public holidays. <p>The proposed minor changes to the layout of the QuarryWEST Estate are not expected to result in any material change to the noise emissions from the estate, and consequently it is expected that the project as modified would continue to comply with the noise criteria in the development consent.</p>	Receiver Location	Predicted Noise Level	Intrusive Noise Criteria			Day	Evening	Night	Nelsons Ridge A	16				Nelsons Ridge B	20	40	42	38	Nelsons Ridge C	15			
Receiver Location	Predicted Noise Level			Intrusive Noise Criteria																				
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Nelsons Ridge C	15																							



Issue	Consideration
Air Quality	<p>The proposed modification does not involve any significant change to air emissions associated with the approved project.</p> <p>As required under the development consent, Hannas is required to implement all reasonable and feasible measures to minimise and manage dust, odour and visual air pollution associated with the project.</p>
Greenhouse Gas (GHG) and Energy Efficiency	<p>The proposal is not expected to significantly change the total GHG emissions associated with operation of the QuarryWEST Estate.</p> <p>As required under the development consent (Condition C22 of Schedule C), Hannas is required to minimise energy use and GHG emissions on site.</p>
Flora and Fauna	<p>As a former quarry, the QuarryWEST site is largely devoid of vegetation and has no significant fauna habitat. However, there is some vegetation within the Precinct F site, as shown on Figure 13.</p>

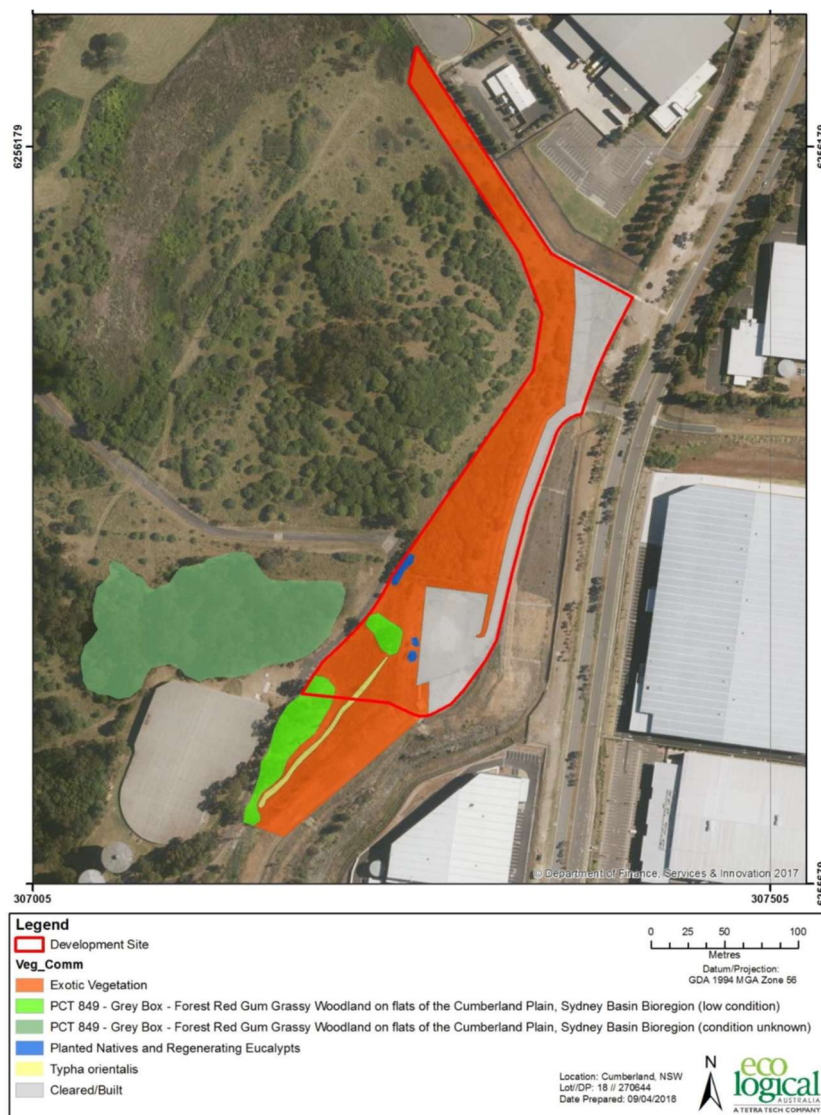


Figure 13: Vegetation Communities (Source: Eco Logical)



Issue	Consideration
	<p>Much of this vegetation comprises exotic species and weeds, however there is a small amount of native treed vegetation in the sloped areas in the south-western area of the site.</p> <p>To assess the biodiversity impacts of the Precinct F development on this vegetation, a detailed Biodiversity Development Assessment Report (BDAR) was undertaken by Eco Logical Australia as part of the MOD 6 application⁵.</p> <p>The assessment identified the following vegetation communities within the site that may be directly disturbed by the development of Precinct F:</p> <ul style="list-style-type: none"> • 0.07 hectares of poor condition Cumberland Plain Woodland (Shale Hills Woodland); • 0.02 hectares of planted <i>Eucalyptus crebra</i> (Narrow-leaved Ironbark) and regenerating eucalypts; • 0.01 hectares of the native reed <i>Typha orientalis</i> and other exotic species in a narrow linear patch; and • 1.53 hectares of exotic vegetation. <p>Cumberland Plain Woodland (CPW) is listed as a Critically Endangered Ecological Community (CEEC) under the NSW <i>Biodiversity Conservation Act 2016</i> (BC Act) and the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act).</p> <p>No other threatened flora and fauna species, populations or ecological communities were identified on the site.</p> <p>The BDAR concluded that the development of Precinct F is unlikely to result in any significant ecological impacts on the locality, subject to implementation of proposed compensatory CPW plantings on site. In this regard, the approved landscape plan for Precinct has been designed to provide approximately 0.24 hectares of CPW plantings, including:</p> <ul style="list-style-type: none"> • a 0.192 hectare 'conservation area' in the south-western area of the site that would be conserved in-perpetuity; and • approximately 0.5 hectares of additional plantings within the site. <p>Condition C30A of the development consent (as amended in the approval to MOD 6) requires Hannas to protect and maintain the 0.192 hectare conservation area, in accordance with a Landscaping and Vegetation Management Plan prepared prior to construction.</p> <p>The proposed modification does not involve any change to the approved conservation area, or to the total landscaping area on the site (ie. 0.4 hectares). Minor changes to the layout of the landscaping areas are proposed (not including the conservation area), commensurate with the minor changes to the layout of the buildings, however these changes are not expected to result in any adverse impact on the ecological values of the site.</p>
Heritage	<p>Aboriginal Heritage</p> <p>As a former hard rock quarry, the QuarryWEST site has been highly disturbed and does not contain any Aboriginal sites or objects.</p> <p>Previous archaeological assessments for the Greystanes SEL concept plan identified one Aboriginal site ('PH1', an artefact scatter) at Widemere East, within the vicinity of the Greystanes</p>

⁵ An ecological assessment was prepared as part of the MOD 6 SEE, and a formal BDAR was prepared as part of the MOD 6 Response to Submissions.



Issue	Consideration
	SEL precinct stormwater detention basin facilities. The site was considered to be of low archaeological significance.

The proposed modification does not involve any disturbance of the Widemere East area, and is not expected to result in any adverse impacts to Aboriginal heritage of the area.

Historical Heritage

Previous heritage assessments for the Greystanes SEL concept plan have identified a number of heritage items in the area, including (see **Figure 14**):

- Prospect Hill, to the east of the site, which is listed in the State Heritage Register (SHR) and Holroyd Local Environmental Plan (LEP);
- Prospect Reservoir and its curtilage, to the west, which is listed in the SHR and the Holroyd LEP;
- Veteran Hall Archaeological Site, located in the Prospect Reservoir site, which is listed in the SHR;
- Boral Main Gate (Greystanes Gates), located in the Nelsons Ridge residential area to the east, which is listed in the LEP; and
- some items associated the former quarry itself, including a 'Traylor' jaw rock crusher and associated rocks.

Essentially, the Prospect Hill and Prospect Reservoir heritage sites encircle the Greystanes SEL, with the curtilage of the Prospect Reservoir heritage site located immediately to the west of Precinct F of the QuarryWEST Estate.

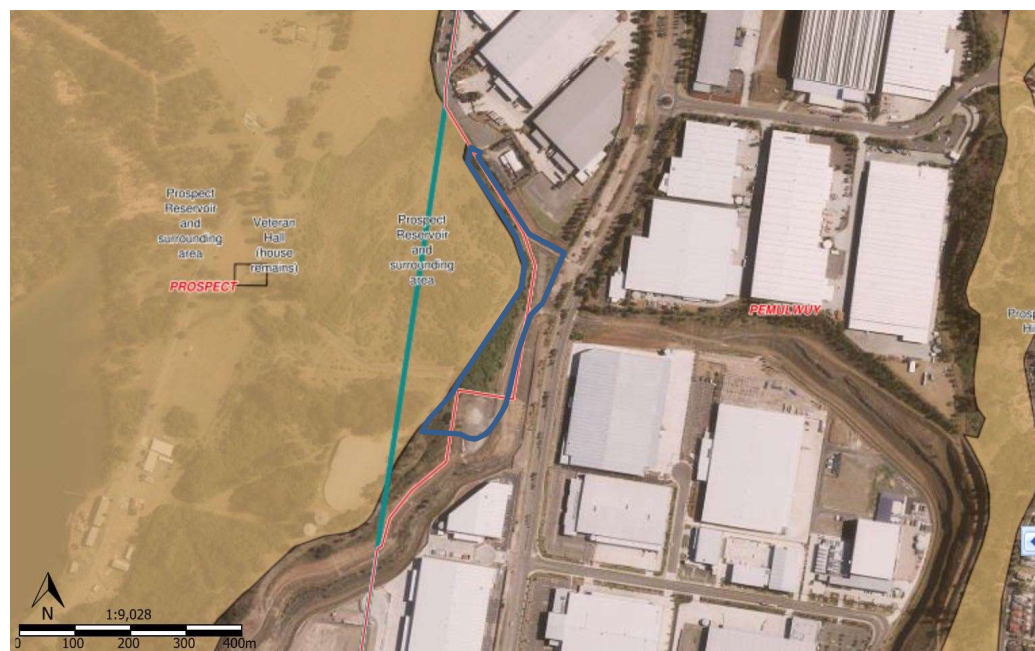


Figure 14: Heritage Sites (Source: DP&E Planning Portal, Dec 2017)

The heritage assessment for the Greystanes SEL concept plan concluded that the development of the SEL would not have a significant impact on the heritage items, provided that archival recording was undertaken and an interpretation strategy implemented to record and conserve the heritage values of the Prospect Quarry.



<i>Issue</i>	<i>Consideration</i>
	<p>Boral has since undertaken the archival recording, and prepared the interpretation strategy (titled Heritage Interpretation Plan, prepared by Turner Hughes Architects, dated September 2010⁶), in accordance with the concept plan approval.</p> <p>The Heritage Interpretation Plan provides for the installation of interpretive heritage elements associated with the former Prospect Quarry within the QuarryWEST Estate, including the Traylor jaw crusher and associated rocks. The QuarryWEST project approval provides for these elements to be located within the DEXUS-owned parts of the estate, with the jaw crusher to be located in the middle of the roundabout at the intersection of Basalt Road and Dolerite Way⁷.</p> <p>The Heritage Interpretation Plan does not involve any works in Precinct F of the estate, and as such the proposal would not affect the implementation of heritage measures under the plan. Further, the proposal is not expected to result in any significant impacts on existing heritage sites outside the QuarryWEST estate, given that:</p> <ul style="list-style-type: none">• the proposal involves only minor changes to the approved layout of the buildings in Precinct F; and• the proposal involves development of the precinct in a manner that is generally consistent with the concept plan approval, the Greystanes SEL Urban Design Plan and the QuarryWEST project approval.
<i>Traffic and Parking</i>	<p>A traffic assessment for the development of Precinct F was undertaken by Transport & Urban Planning Pty Ltd (T&UP) as part of the MOD 6 application. The assessment supplemented the detailed traffic assessment undertaken by T&UP for the approved QuarryWEST project.</p> <p>T&UP has undertaken an additional review for the proposed modification, which is attached as Appendix F.</p> <p><i>Traffic Generation and Impacts</i></p> <p>Unlike other precincts in the QuarryWEST Estate, Precinct F is accessed via Picrite Close to the north of the estate, which provides access to the Prospect Highway via Reservoir Road.</p> <p>Based on the traffic generation rates in the RMS' <i>Guide to Traffic Generating Developments</i>, the MOD 6 traffic assessment found that the development in Precinct F would generate approximately 62 two way vehicle trips per hour in the AM and PM peak hours.</p> <p>The assessment included SIDRA modelling⁸ to assess the impacts of the additional traffic on the key Picrite Close/Reservoir Road intersection. The assessment found that the development of Precinct F would not result in any significant traffic impacts, with the intersection continuing to perform at a Level of Service (LoS) of A for all movements, with acceptable delays (less than 3 seconds average) and queue length (less than 6 metres).</p> <p>The proposed modification would reduce total floor area within Precinct F by some 1,933m². As such, the additional traffic review undertaken for the proposal estimates that traffic generation would reduce to approximately 52 two way vehicle trips per hour in the AM and PM peak hours.</p>

⁶ The Heritage Interpretation Plan is attached in the QuarryWEST Project EIS.

⁷ As approved in MOD 7.

⁸ The assessment also included additional traffic surveys undertaken in December 2017.



Issue	Consideration
	Consequently, the proposed modification is not expected to result in any significant change to traffic patterns or impacts on the capacity of the road network.

Internal Circulation

The proposal involves only minor changes to the internal layout of driveways and parking areas in Precinct F. The additional traffic review confirms that all driveways and internal roads are/will be designed to fully comply with Australian Standard (AS2890.2) requirements for the largest vehicle that would visit the development, and that driveway locations will provide adequate sight distances.

As with the approved MOD 6, the Precinct F site is proposed to be accessed by vehicle sizes up to and including Medium Rigid Vehicles only (ie. 8.8 metres length), which is considered adequate given the small size of the warehouse units. The additional traffic review includes swept path analysis for key vehicle turning movements within the precinct.

Car Parking

The QuarryWEST masterplan has been designed to comply with the applicable car parking rates in the development consent (Condition C5 of Schedule C) and the *State Significant Precincts SEPP* for each development lot. As indicated in **Table 1**, proposed parking supply for the QuarryWEST Estate comfortably meets the minimum parking requirements. Parking requirements and supply for each development lot is shown in **Appendix D**, and car parking requirements and supply for each of the proposed buildings in Precinct F is shown in the following table.

Disabled parking spaces have been designed and would be provided in accordance with AS 2890.6 (2009).

Table 4B: Precinct F Car Parking Provision

Building	No. Units	Gross Floor Area (m²)		Required Spaces²	Proposed Spaces
		Warehouse¹	Office		
A	12	1,102	-	4	36 ³
B	1	1,427	166	10	10
C	1	577	80	4	5
D	11	2,382	345	17	24
E	21	3,685	630	29	37
Total	46	9,173	1,221	64	112

1 Conservatively includes service areas.

2 Based on the parking controls in the development consent (condition C5) and the State Significant Precincts SEPP, namely 1 space per 300m² of warehouse floor space and 1 per 40m² of office floor space.

3 Each unit would include 1 internal parking space and 2 external spaces.

Pedestrian and Bicycle Facilities

The proposed modification does not involve any change to the estate pedestrian and bicycle facilities, other than minor changes associated with the proposed changes to the building layout. Bicycle parking and changing facilities would be provided in accordance with Condition C5 of Schedule C of the development consent.

Hazards	Bush Fire
	The land within the Prospect Reservoir to the west of Precinct F comprises predominately weedy shrubland with some taller trees, and is mapped as bush fire prone land under Cumberland Council's bush fire maps. Precinct E is located at the base of the former quarry, and is not subject to significant bushfire risk.



Issue	Consideration
	<p>A bush fire assessment for the approved Precinct F layout was prepared by Eco Logical, as part of the MOD 6 application.</p> <p>The assessment concluded that the development of Precinct F is able to comply with the aims and objectives of the Rural Fire Services' (RFS') <i>Planning for Bush Fire Protection</i> (PBP) guidelines, subject to a number of recommendations including:</p> <ul style="list-style-type: none"> • implementation of ember protection measures for the buildings, including: <ul style="list-style-type: none"> ○ weepholes, vents and openable portions of windows be screened against the entry of embers with steel mesh with maximum aperture of 2 mm; ○ weather strips to external doors or similar measure to prevent the entry of embers through gaps greater than 3 mm; and ○ nylon brush seals around roller doors or similar measure to prevent the entry of embers through gaps greater than 3 mm; • an emergency vehicular access be provided between the site and Prospect Highway via the existing access track on the eastern side of the site (Nb. This access would be locked during normal operations); • internal roads less than 8 metres wide be signposted as 'No Parking' on one side with the services (hydrants) located on this side to ensure accessibility to reticulated water for fire suppression; • water, electrical and gas supplies to be installed in accordance with applicable Australian Standards; • an Emergency and Evacuation Plan to be prepared consistent with the RFS' <i>Preparation of Emergency/Evacuation Plan</i> guideline; and • landscaping to be installed and maintained in consideration of the performance requirements of an Inner Protection Area (IPA) as described in Appendix 5 of the PBP guideline. <p>Hannas will undertake the development of Precinct F in accordance with these recommendations.</p> <p>The proposed modification involves only minor changes to the approved layout of Precinct F. Eco Logical has undertaken a review of the proposed changes (see Appendix G), and confirmed that the proposed modifications do not affect the conclusions of the original bushfire assessment.</p> <p><i>Dangerous Goods and Hazardous Materials</i></p> <p>The proposed modification does not involve any significant change to hazardous or dangerous goods storage within the QuarryWEST Estate.</p> <p>As required under the development consent (Conditions C21 and C22 of Schedule C), Hannas is required to ensure that dangerous goods storage does not exceed the thresholds in the Department's <i>Applying SEPP 33</i> guidelines, and to store and handle all dangerous goods in accordance with relevant Australian Standards.</p>
Waste	<p>The proposed modification would not significantly alter the generation or management of wastes associated with the approved QuarryWEST project. As required under the development consent (Condition C24 of Schedule C), Hannas is required to monitor and minimise waste generation associated with the project.</p>
Utilities and Services	<p>The proposal is not expected to affect the capacity of utilities and services associated with the approved project.</p>



5 Conclusion

It is considered that the proposed MOD 9 modification represents a relatively minor modification of the QuarryWEST project as approved.

Having regard to all the salient environmental, social and economic issues, it is considered that the proposed modification represents continued orderly use of the land. It is respectfully requested that the Department, having due regard for the information submitted in this document, grants approval to the proposed modification.

Should you have any enquiries in relation to this matter, please do not hesitate to contact me on 0400 392 861.

Yours faithfully,

PJEP – Environmental Planning

Phil Jones

Principal Environmental Planner

Cc: Hannas

Attachments:

Appendix A	Revised Architectural Design Plans
Appendix B	Revised Landscape Design Plans
Appendix C	Revised Civil Design Plans/Review
Appendix D	Detailed Area Schedule
Appendix E	Greystanes SEL Concept Plan Consideration
Appendix F	Traffic Review
Appendix G	Bushfire Review



APPENDIX A



APPENDIX B



APPENDIX C



APPENDIX D



APPENDIX E



APPENDIX F



APPENDIX G