

ACN: 146 035 707 ABN: 54 146 035 707 Suite 7, Level 7, 100 Walker St, North Sydney NSW 2060 P 02 **9929 6974** enquiries@willowtreeplanning.com.au

Bianca Thornton NSW Department of Planning & Environment 320 Pitt Street Sydney NSW 2000 Bianca.Thornton@planning.nsw.gov.au

Attention: Bianca Thornton – Planning Officer

MODIFICATION APPLICATION (SSD 7173 MOD 3), PROPOSED STORMWATER CHANNEL REALIGNMENT & LOT 8 EXPANSION WORKS – FIRST ESTATE

PROPERTY AT: 579 & 585-649 MAMRE ROAD, ORCHARD HILLS (Lot 2 DP 1233392 & Lot 2171 DP 1153854)

Dear Bianca,

Reference is made to Modification Application – SSD 7173 MOD 3 – that was subsequently lodged with the NSW Department of Planning & Environment (DP&E) 29 June 2018 for a proposed channel realignment (Lot 2 DP 1233392) and proposed Lot 8 expansion works (First Estate – Lot 2171 DP 1153854).

Following review of NSW DP&E's additional information request for the 'Response to Submissions' dated 10 August 2018, provided by various entities involved, the matters raised have been taken into due consideration and are accurately addressed in the response matrix that is attached to this letter. It is considered that this information now provides NSW DP&E with all the necessary facts and relevant particulars related to the proposed development; therefore, enabling the assessment to be finalised and determined by NSW DP&E.

We look forward to NSW DP&E's feedback on the information provided, and look forward to progressing with the assessment of this Modification Application.

Should you wish to discuss further, please contact the undersigned on 0413 555 638.

Yours Faithfully,

Ander low

Andrew Cowan Director Willowtree Planning Pty Ltd ACN 146 035 70



Enclosed:

- Appendix 1 Civil Engineering Response to Submissions and Plans
- Appendix 2 Landscape Plans
- Appendix 3 OEH Consultation Letter
- Appendix 4 Subdivision Plan (as submitted with DA18/0674)
- Appendix 5 Vegetation Management Plan



Table 1: Response Matrix	
Relevant Entities Response to Submissions	Formalised Response
Department of Industry (Mohammed H Rahman – Natural I	Resources Management Officer Sydney Regional Services)
A Land status investigation on the Proposed Modification – Altis Warehouse and Logistics Hub (SSD 7173) – 585-649 Mamre Road, Orchard Hills – Penrith LGA, shows that there is no Crown Land. Therefore, Department of Lands has no comments at this moment.	Noted and agreed.
WaterNSW (Kristine Ward – Catchment Protection Adviser)	
Thank you for the opportunity for WaterNSW to provide further comment on the Section 4.55(1A) Modification Application (SSD 7173) 579 Mamre Road, Orchard Hills – Proposed Stormwater Channel Realignment and Lot 5 Expansion Works. Approval to State Significant Development (SSD) 7173 was granted by the Minister for Planning on 15 December 2016 for bulk earthworks and the construction and operation of a Warehouse and Logistics Hub. WaterNSW provided a response at that time (our ref: D2016/41889). Concerns relating to stormwater management and erosion and sediment control were raised and subsequently reflected in determination conditions C25, C26 and C27. It is important these conditions are fully implemented in the areas immediately adjacent to the WaterNSW Warragamba pipelines.	Noted and agreed.
WaterNSW understands that the proposed modified estate drainage channel is along the northwest portion of Lot 2 1233392, over 500m from the Warragamba pipelines corridor. The potential for the proposed modification to impact the corridor and water supply infrastructure is considered low and therefore WaterNSW has no specific comment or requirements. Environment Protection Authority (EPA) (Mark Carey – A/U	nit Head Sydney Industry)
The EPA notes that Proponent has not identified how the proposed channel realignment, which is within the South Creek catchment, addresses the sustainability directions within the	The proposed development holds significant contextual grounding with regard to two (2)

Western City District Plan (Greater Sydney Commissions, March 2018). For example, planning priorities W12 and W13 which relate specifically to South Creek.	
	The proposed development would decommission the current channel traversing into South Creek from First Estate, via the implementation of an aesthetically pleasing and strategically enhanced landscaped design that incorporates sophisticated riparian planting along the proposed channel's riparian corridor. This would be undertaken pursuant to the realignment of the channel. The species chosen would include an educated selection of endemic and exotic species that would thrive on the proposed development as-well-as attributing to the characteristics of the proposed development by exhibiting growth traits that limit adverse impacts such as sedimentation and bank erosion from occurring. The proposed channel realignment would include realigning the existing channel via the proposed component, ultimately allowing for projected runoff volumes to flow in a fluvial manner as intended. The proposed development would be constructed in such a manner, that prohibits any potential adverse environmental impacts on the South Creek tributary traversing the proposed development to the west.
	At the time of construction, necessary mitigation measures and controls would be implemented to eliminate any potential adverse environmental impacts from occurring. It is considered that the proposed development satisfactorily addresses both planning priorities (W12 & W13) identified.
The EPA further notes that under the Protection of the Environment Operations Act 1997, "waste disposal (application to land)" is a scheduled activity and requires an environment protection licence. Resource recovery exemptions for consumers of waste, such as importers of fill, are available under the Protection of the Environment Operations (Waste) Regulation 2014; however, the Proponent has not identified any relevant	The NSW Water Quality Objectives, specific to the proposed channel realignment, that concern the discharge channel are not a requirement for consideration. Costin Roe Consulting explain that the proposed channel realignment would not result in any changes experienced with regard to the water quality of potential run off into the South Creek tributary, as a result of the proposed development; or, to previously approved Water Quality Strategies on surrounding developments.
resource recovery exemptions for the proposed importation of fill.	It is noted that the channel conveys stormwater runoff from three (3) sources as follows:
Accordingly, the EPA recommends that the Proponent be required to: • specify the proposed water quality targets for the	 Industrial land (approximately 9 hectares) owned by Goodman from the east of Mamre Road (Erskine Business Park); Runoff from Mamre Road (RMS asset); and, Mamre Wort Preciset - First Setets (Altis Preparty Pertners)
proposed channel realignment, consistent with the NSW Water Quality Objectives. Generic percentage load reduction targets are not supported by the EPA	 Mamre West Precinct – First Estate (Altis Property Partners). Erskine Business Park (as constructed), employed water quality measures, as required by Penrith City Council at the time of the approval to construct the industrial precinct. Water

as these do not reflect contemporary integrated water cycle management and are unlikely to improve the health of South Creek; and, clarify how it will meet its waste obligations in relation to the proposed importation of fill, including by updating any fill importation protocol or similar.	quality measures implemented at the time of the approval would have included the provision for a gross pollutant trap, which targets suspended solids, some nutrients, hydrocarbons and litter.
	Runoff from Mamre Road, and any water quality requirements associated with the road runoff are managed accordingly and maintained by RMS as Mamre Road is an identified RMS asset. Runoff associated with this road is considered consistent with the runoff from the time of its initial construction.
	Additionally, runoff from First Estate is managed and treated by two (2) gross pollutant traps, and an estate level bio-retention basin (Lot 1) as approved under SSD 7173. These systems manage and treat suspended solids, nutrients, gross pollutants and hydrocarbons. The Water Quality Objectives meet the following reductions (as set out and approved under SSD 7173) including:
	 Gross Pollutants 90%; Total Suspended Solids 85% Total Phosphorus 60% Total Nitrogen 45% Total Hydrocarbons N/A Free Oil and Grease 90%
	The measures provided for First Estate meet all the requirements and objectives for all previous approvals. Furthermore, there would be no change to the water quality outcomes in relation to the proposed channel realignment subject to the Modification Application.
NSW Office of Environment & Heritage (OEH) (Susan Harris	on – Senior Team Leader Planning)
Construction of new channel The Modification report indicates the MOD 3 application proposes to construct a new drainage channel to replace the current realigned channel. In relation to the new channel, it is recommended:	 Refer to updated Landscape Plan in Appendix 2.
 a fully vegetated riparian corridor is established along either side of the new channel (measured from top of bank) consisting of a diversity of local provenance native plant species from the relevant native vegetation community; 	

•	local native grass species and native shrubs are	
	established along the channel batters to assist stabilise	
	the channel and improve habitat value; and,	
	the outlet of the new channel and bank of South Creek	
	near the proposed works is revegetated with local native	
	vegetation to improve habitat, stabilise the bank and	
	mitigate the potential for scouring	

 Filling of the existing channel In relation to the proposed filling of the existing channel to pre- existing levels, it is recommended: the riparian corridor along South Creek where the existing channel is proposed to be filled is revegetated with a diversity of local provenance native plant species from the relevant native vegetation community. Preparation of a Vegetation Management Plan If the modification application is approved, it is recommended a condition of consent is included to prepare a Vegetation Management Plan (VMP) to address the above issues and provide details on the rehabilitation of a vegetated riparian corridor along either side of the new channel and the riparian areas disturbed along South Creek including:	Refer to updated Landscape Plan in Appendix 2 . It is acknowledged that as a condition of the Modification Application being approved, that the requirement for a Vegetation Management Plan (VMP) would be required to address the construction of the new channel, as-well-as filling of the existing channel. Additionally, details would be required that demonstrate the rehabilitation of a vegetated riparian corridor along either side of the new channel and the riparian areas that would be potentially disturbed as a result of the proposed development (refer to Appendix 2). A comprehensive VMP has been accordingly provided by Ecoplanning, which addresses the adjacent column imposed by OEH (refer to Appendix 5).
Aboriginal cultural heritage There is potential for the construction and excavation of the new channel to impact Aboriginal archaeology, particularly as:	In an attempt to address the items concerning Aboriginal Cultural Heritage, the Aboriginal Heritage consultant (Biosis) liaised with OEH by phone and email (23/08/2018) regarding Aboriginal Heritage comments provided in the OEH submission dated 09 August 2018, with regard to the Modification Application (SSD 7173 MOD 3).
 there is an existing Aboriginal site (45-5-4717) recorded in 2016 in close proximity to the existing channel and the proposed works. The modification proposal could impact on these sites; there is an existing Aboriginal site (45-5-4719) recorded in 2016 on the SSD-7173 site; 	The email provided by Biosis to OEH notes, that the proposed channel realignment is located within a landform unit assessed as possessing 'moderate potential' following further investigations. It also indicates that as this is a modification to the existing approval (SSD 7173), which is supported by an existing Aboriginal Cultural Heritage Assessment Report (ACHAR), Biosis propose the following approach (utilising the existing

 easement for the new channel is to be 35m wide (see Section 2, page 3 of Modification report); the channel works are located on RU2 (Rural Landscape) zoned land and may have had minimal past ground disturbance the works are in close proximity to South Creek which has cultural landscape value to Aboriginal people. The modification application should identify and describe the Aboriginal cultural heritage values that exist across the whole area that will be affected by the development and document these in an Aboriginal Cultural Heritage Assessment Report (ACHAR). This may include the need for surface survey and test excavation. The identification of cultural heritage values must be conducted in accordance with the Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH 2010), and guided by the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (DECCW, 2011). Consultation with Aboriginal people must be undertaken and documented in accordance with the Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW). The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the ACHAR. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the ACHAR. The ACHAR must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR must outline measures proposed to mitigate "impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.	 Resubmission of an archaeological testing methodology to Registered Aboriginal Parties (RAPs) for the channel alignment; Completion of archaeological test excavations within channel alignment to confirm the presence of Aboriginal objects; Formulate addendum report detailing the results of the test excavations; Submissions of addendum report to RAPs for review; and, Finalise report with RAP comments. Additionally, Biosis sought confirmation from OEH as to whether the above approach would address the OEH comments. In an email provided 24 August 2018, OEH requested that Biosis provide scaled figures, which show the location of the test excavation areas that were undertaken for SSD 7173 and the area surveyed in relation to the proposed channel realignment. Biosis subsequently provided OEH with this information. As a response, OEH understands that from point (2) above, that Biosis would undertake test excavations within the channel alignment. OEH also recommend that test excavations are also undertaken in the area surrounding the proposed channel alignment in the area surrounding the proposed channel alignment where the soil profile could potentially be disturbed during construction of the new channel. OEH have confirmed (refer to Appendix 3) that provided this occurs, they are supportive of the approach proposed by Biosis. Acknowledging the above statements and confirmation provided by OEH in support of the approval of the proposed development. Stipulated within the approval as a condition of consent should be, that construction of the proposed channel realignment should not take place until Biosis have undertaken the required works; and, the findings of those works are favourable and supportive by OEH. Additionally, at the time of construction, should any unexpected finds be uncovered, all works should cease, and an archaeological expert be consulted to confirm and record the validity of the finds f
Penrith City Council (Gavin Cherry – Development Assessm	
Council has reviewed the modification and raises no objection to the proposal, subject to the following being addressed in the assessment of the application.	Costin Roe Consulting have provided an updated assessment and included a corresponding report (refer to Appendix 1), as per the requirements of Section 2.4 of Council's 2016 Stormwater Drainage Policy. The amendments are specific to the local storm event when South Creek would be subject to limited and / or low flood conditions.

Engineering Considerations <u>Overland Flow</u> The Overland Flow Report prepared by Costin Roe Consulting, Revision D dated 8 June 2018 primarily focuses on an overland flow assessment to accompany the Mamre West – Stage 2 planning application and not focusing on the re-alignment of the channel for Stage 1. In this regard, an updated overland flow path analysis is required to be provided including an updated stormwater catchment plan. All details shall address the criteria required under section 2.4 of Council's Stormwater Drainage Policy.	Additionally, Appendix 1 provides informed flood path analysis demonstrating the extent and level of the 1% AEP.
In addition to the above the extent and level of the 1% AEP local overland flows (pre and post) shall be shown on the site plan and all cross-sections.	
<u>Drainage Easement</u> The drainage easement shall be created over the proposed channel within the adjoining downstream lot in accordance with Council's requirements. In this regard, the following criteria applies:	Costin Roe Consulting confirm that the easement width as nominated would be greater than the top width of the 1% AEP flow, with 500 mm freeboard plus 1 m either side. Confirmation of the width would be forthcoming in line with the Overland Flow Assessment required with regard to the above statement; and,
 Easement width shall be 1 metre plus top width of the 1% AEP design flow with 500mm freeboard; The subdivision plan shows '(L) proposed easement to drain Water 14 & 35 Wide'. This shall be amended to 	With regard to the two (2) points concerning the subdivision, there is currently a Development Application (DA18/0674) being assessed and determined by Council that accurately addresses both points. Should further updates to the subdivision plan be made this can be provided as required (refer to Appendix 4).
 state – 'Proposed Easement to Drain Water 14, 35 Wide & Variable'; and, The subdivision plan shall show the existing drainage easement (G) on the plan to be deleted. 	Maintenance obligations are noted regarding bio-swales and open channels within the bounds of First Estate. Furthermore, it is noted that the subject channel conveys runoff from Mamre Road (NSW RMS Road) and industrial land (approximately 9 hectares) to the east of Mamre Road (Goodman Estate) in addition to runoff conveyed from First Estate
All bio-swale / open channels should remain under the care and control of the registered proprietor of the lots benefited by the drainage easement, as Council will not accept any maintenance	(both lots and roads). Notwithstanding, it is understood maintenance obligations relating the channel would be borne by the proponent (Altis Property Partners).
obligations or dedications. A turning head suitable for a maintenance and emergency	An updated plan is located within Appendix 1 to reflect the turning head for a B99 vehicle (large 4WD or similar maintenance vehicle). The turning head would be located in proximity to South Creek.
vehicles is to be incorporated towards the western end of the 5m wide access trail and contained within the easement.	The proposed conditions outlined within Attachment A of Councille response are generally
<u>Attachment A:</u>	The proposed conditions outlined within Attachment A of Council's response are generally

 In addition to above please see below recommended conditions of consent in relation to environmental health matters and engineering matters which should be incorporated into any revised notice of determination. No fill material is to be imported to the site without the prior approval of Penrith City Council in accordance with Sydney Regional Environmental Plan No.20 (Hawkesbury-Nepean River) (No.2-1997). No recycling of material for use as fill material shall be carried out on the site without the prior approval of Council; No fill material shall be carried out on the site without the prior approval of Council; No fill material shall be imported to the site until such time as a Validation Certificate for the fill material has been submitted to, considered and approved by Council. A copy of a report forming the basis for the validation is also to be provided. The Validation Certificate shall: be prepared by an appropriately qualified person (as defined in the Penrith Development Control Plans) with consideration of all relevant guidelines, standards, planning instruments and legislation (e.g. EPA, NEPM, ANZECC, NH&MRC); clearly state the legal property description of the fill material source site and the total amount of fill tested; provide details of the volume of fill material to be used in the filling operations; provide a classification of the fill material to be imported to the site in accordance with the NSW Environment Protection Authority's "Waste Classification Guidelines" 2009; and, (based on the fill classification) determine whether the fill material is suitable for its intended purpose and land use and whether the fill material will or will not pose an unacceptable risk to human health or the environment. All stormwater drainage and earthworks, associated civil 	considered warranted, for which compliance can be ensured; however, with particular mention to Condition 2, which relates to fill material being validated and approved by Penrith City Council prior to placement – this Condition is not accepted. Approval pathways moving forward with regard to the importation of fill should be made conditional based on the certifier's approval at the time of PC with updated certificates and reports to be provided when certification is provided.
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 works and dedications, required to effect the consented development shall be undertaken at no cost to Penrith City Council; Owners consent is required for works proposed within the adjoining property of Lot 2, DP 1233392. A drainage easement shall also be created over the proposed channel within the adjoining downstream lot in accordance with Council's requirements; and, Prior to the issue of any Construction Certificate, the Principal Certifying Authority and/ or Certifying Authority shall ensure that an application under Section 68 of the Local Government Act, including payment of application and inspection fees, has been lodged with, and approved by Penrith City Council for the relocation of the open channel. 	
Engineering plans are to be prepared in accordance with the	Refer to updated engineering plans in Appendix 1.
development consent, Penrith City Council's Design Guidelines for	
<i>Engineering Works for Subdivisions and Developments</i> <i>Engineering Construction Specification for Civil Works, Austroads</i>	
Guidelines, and best engineering practice.	
A Construction Certificate is to be approved by the Certifying	Noted and agreed.
Authority for the provision of engineering works (road, drainage,	
earthworks, subdivision works). A Construction Certificate shall be issued for any subdivision works. Prior to the issue of any	
Construction Certificate, the Certifying Authority shall ensure that	
engineering plans are consistent with the stamped approved	
concept plan/s approved by the Minister of Planning and that all	
subdivision works have been designed in accordance with the development consent, Penrith City Council's Design Guidelines for	
Engineering Works for Subdivisions and Developments,	
Engineering Construction Specification for Civil Works, Austroads	
Guidelines and best engineering practice. The subdivision works	
may include but are not limited to the following:	
Private access roads and driveways;	
 Stormwater management (quantity and quality); Sediment and erosion control measures; 	
 Seament and erosion control measures; 	

 Flood control measures; 	
 Overland flow paths; 	
Earthworks;	
 Bridges, culverts, retaining walls and other structures; 	
 Landscaping and embellishment works. 	
The Construction Contificate much be summarized by angles and	
The Construction Certificate must be supported by engineering	
plans, calculations, specifications and any certification relied	
upon. Note: Council's Development Engineering Department can	
provide this service. Contact Penrith City Council's Development	
Engineering Department on 4732 7777 or visit Penrith City	
Council's website for more information.	
Prior to the commencement of any works on-site (including	Noted and agreed.
demolition works) or prior to the issue of any Construction	
Certificate, whichever occurs first, a Construction Traffic	
Management Plan (CTMP) shall be submitted to Council for	
approval. The CTMP shall be prepared in accordance with	
Council's Engineering Construction Specification for Civil Works.	
The CTMP shall be prepared by a suitably qualified consultant	
with appropriate training and certification from the Roads &	
Maritime Services (RMS), and in accordance with Council's	
Engineering Construction Specification for Civil Works. Approval of	
the CTMP may require approval of the Local Traffic Committee.	Neted and anneal
Prior to the issued of any Construction Certificate issued for	Noted and agreed.
internal works associated with the development the site must be	
serviced by a legal point of discharge including and required	
infrastructure drainage works. The drainage works may include	
inter-allotment drainage construction, upgrades and / or road	
drainage extensions located on lands owned by others.	
Prior to commencement of any works associated with the	Noted and agreed.
development, sediment and erosion control measures shall be	
installed in accordance with the approved Construction Certificate	
and to ensure compliance with the Protection of the Environment	
Operations Act 1997 and Managing Urban Stormwater series from	
the Office of Environment and Heritage. The erosion and	
sediment control measures shall remain in place and be	
maintained until all disturbed areas have been rehabilitated and	
stabilised.	
Prior to commencement of any works associated with the	Noted and agreed
The te commencement of any works associated with the	Noted and agreed.

development, a Traffic Control Plan, including details for pedestrian management, shall be prepared in accordance with AS1742.3 "Traffic Control Devices for Works on Roads" and the Roads and Maritime Services' publication "Traffic Control at Worksites" and certified by an appropriately accredited Roads and Maritime Services Traffic Controller. Traffic control measures shall be implemented during the construction phase of the development in accordance with the certified plan. A copy of the plan shall be available on site at all times.	
 Note: (a) A copy of the Traffic Control Plan shall accompany the Notice of Commencement to Penrith City Council; and, (b) Traffic control measures may require road occupancy / road closure approvals issued under Section 138 of the Roads Act by Penrith City Council prior to the issue of a Construction Certificate. 	
 Work on the subdivision shall not commence until: Construction Certificate (if required) has been issued; A Principal Certifying Authority has been appointed for the project; and, Any other matters prescribed in the development consent for the subdivision and the Environmental Planning and Assessment Act and Regulation have been complied with. A Notice of Commencement of works is to be submitted to Penrith City Council five (5) days prior to commencement of engineering works or clearing associated with the subdivision. 	Noted and agreed.
All earthworks shall be undertaken in accordance with AS3798 and Penrith City Council's Design Guidelines for Engineering Works for Subdivisions and Developments and Engineering Construction Specification for Civil Works. The level of testing shall be determined by the Geotechnical Testing Authority/ Superintendent in consultation with the Principal Certifying Authority.	Noted and agreed.
Prior to the issue of a Subdivision Certificate, the Principal Certifying Authority shall ensure that all works associated with a S68 Local Government Act approval have been inspected and signed off by Penrith City Council. Prior to the issue of a Subdivision Certificate, the Principal	Noted and agreed.

Certifying Authority shall ensure that all subdivision works required by this consent have been satisfactorily completed or that suitable arrangements have been made with Penrith City Council for any outstanding works.	
Prior to the issue of a Subdivision Certificate, Works As Executed drawings, final operation and maintenance management plans and any other compliance documentation shall be submitted to the Principal Certifying Authority in accordance with Penrith City Council's Engineering Construction Specification for Civil Works, WSUD Technical Guidelines and Stormwater Drainage for Building Developments. An original set of Works As Executed drawings and copies of the final operation and maintenance management plans and compliance documentation shall also be submitted to Penrith City Council with notification of the issue of the Occupation and / or Subdivision (Strata) Certificate where Penrith City Council is not the Principal Certifying Authority.	Noted and agreed.
 Prior to the issue of a Subdivision Certificate, the Principal Certifying Authority shall ensure that the: (a) Overland flowpath works Have been satisfactorily completed in accordance with the approved Construction Certificate and the requirements of this consent; Have met the design intent with regard to any construction variations to the approved design; and, 	Noted and agreed.
 Any remedial works required to be undertaken have been satisfactorily completed. Details of the approved and constructed system/s shall be 	
<i>provided as part of the Works As Executed drawings.</i> <i>Prior to the issue of a Subdivision Certificate, a restriction as to user and positive covenant relating to the: a) Overland flowpath works.</i>	Noted and agreed.
Shall be registered on the title of the property under private ownership. The restriction as to user and positive covenant shall be in Penrith City Council's standard wording as detailed in	

Deprith City Councille Starmwater and Drainage for Duilding	
Penrith City Council's Stormwater and Drainage for Building Developments policy.	
Prior to the issue of a Subdivision Certificate, the following	Noted and agreed.
compliance documentation shall be submitted to the Principal	•
Certifying Authority. A copy of the following documentation shall	
be provided to Penrith City Council where Penrith City Council is	
not the Principal Certifying Authority:	
not the Philopal Certifying Authority.	
(a) Works As Executed (WAE) drawings of all civil works. The	
WAE drawings shall be marked in red on copies of the	
stamped Construction Certificate drawings signed,	
certified and dated by a registered surveyor or the design	
engineer. The WAE drawings shall be prepared in	
accordance with Penrith City Council's Engineering	
Construction Specification for Civil Works;	
(b) The WAE drawings shall clearly indicate the 1% Annual	
Exceedance Probability flood lines (local and mainstream	
flooding);	
(c) The WAE drawings shall be accompanied by plans	
indicating the depth of cut / fill for the entire	
development site. The survey information is required to	
show surface levels and site contours at 0.5m intervals.	
All levels ate to be shown to AHD;	
(d) A copy of all documentation, reports and manuals	
required by Section 2.6 of Penrith City Council's WSUD	
Technical Guidelines for handover of stormwater	
management facilities to Penrith City Council;	
(e) Surveyor's Certificate certifying that all open channels	
and access trails are located wholly within the	
appropriate easements and that no channels encroach	
over boundaries, private or public lands;	
(f) Documentation for all road pavement materials used	
demonstrating compliance with Penrith City Council's	
Engineering Construction Specification for Civil Works;	
(g) A Geotechnical Report certifying that all earthworks and	
road formation have been completed in accordance with	
AS3798 and Penrith City Council's Design Guidelines and	
Construction specifications. The report shall include:	
Compaction reports for road pavement	

construction; Compaction reports for bulk earthworks and lot regrading; and, Statement of compliance. (h) A slope junction plan for inter allotment drainage lines indicating distances to boundaries and depths.	
Prior to the issue of a Subdivision Certificate the following easements shall be created on the plan of subdivision:	Noted and agreed.
 (a) Easements for drainage (including over downstream properties); (b) Any other easements identified during the construction process; and, (c) Other. 	

Appendix 1 Civil Engineering Response to Submissions and Plans



Appendix 2 Landscape Plans



Appendix 3 OEH Consultation Letter



Appendix 4 Subdivision Plan (as submitted with DA18/0674)



Appendix 5 Vegetation Management Plan

