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Our Reference: NS212832
DPHI's Reference: SSD-96248991:

30/01/2026

Health Infrastructure - ABN 89 600 377 397

Attention: Matt Malone

Dear Mr Malone

Re: Rouse Hill Hospital – HI24498

In relation to the Hills Shire Council's comments on the Civil Design for SSDA Design for the new Rouse Hill Hospital d Corner of Commercial Road and Windsor Road, Rouse Hill) as shown in the below table:

ACOR CONSULTANTS PTY LTD (ACN 079 306 246) (ABN 40 079 306 246)

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Submission	Themes	ACOR Response																						
<p>Any proposed retaining wall shall be designed such that it accepts and caters for any surface runoff from the up slope adjoining land in a 'failsafe' manner without affecting</p> <p>any other property. No diversion or concentration of stormwater surface flows will be permitted. Any proposed retaining wall including footing and subsoil drain shall be designed and constructed fully inside the property boundary.</p>	<p>Proposed retaining walls</p>	<p>ACOR: The current civil design incorporates measures to manage stormwater runoff within the project site. Overland flow is directed into the nearest proposed drainage pit and through the new stormwater drainage network. Additionally, the structural details of the retaining wall at the project boundary include a subsoil drain for boundary water management.</p> <p>However, during the detailed design phase, a revised retaining wall arrangement may be adopted. If this change occurs and is approved by Endeavour Energy (EE), a surface swale may be required to ensure that no surface flow is directed toward neighbouring properties.</p>																						
<p>Civil Engineering plans shall be prepared and provided as part of the submission. This shall include but not limited to full road's width, long section, cross-section, earthworks, extent of the cut/full, drainage, services, etc. Earthwork plans, cut and fill, and retaining wall shall be provided on a separate plan.</p>	<p>Civil Engineering plans</p>	<p>ACOR: The civil engineering plans submitted for the SSDA (State Significant Development Application) contain the necessary information, as detailed in the drawings list provided below. However, the comprehensive stormwater drainage design for the main works will be subject to a separate approval path (REF), as its construction is scheduled to occur concurrently with the early works phase.</p> <table border="1" data-bbox="835 852 1438 1372"> <thead> <tr> <th>DRAWING NUMBER</th> <th>DRAWING TITLE</th> </tr> </thead> <tbody> <tr> <td>130486-ACOR-CV-DWG-015001</td> <td>COVER SHEET AND DRAWING INDEX</td> </tr> <tr> <td>130486-ACOR-CV-DWG-015101</td> <td>LEGENDS SHEET</td> </tr> <tr> <td>130486-ACOR-CV-DWG-015102</td> <td>NOTES SHEET 1</td> </tr> <tr> <td>130486-ACOR-CV-DWG-015103</td> <td>NOTES SHEET 2</td> </tr> <tr> <td>130486-ACOR-CV-DWG-015201</td> <td>KEY PLAN</td> </tr> <tr> <td>130486-ACOR-CV-DWG-045001</td> <td>BULK EARTHWORKS PLAN</td> </tr> <tr> <td>130486-ACOR-CV-DWG-045101</td> <td>BULK EARTHWORKS SECTIONS - SHEET 1</td> </tr> <tr> <td>130486-ACOR-CV-DWG-045102</td> <td>BULK EARTHWORKS SECTIONS - SHEET 2</td> </tr> <tr> <td>130486-ACOR-CV-DWG-055001</td> <td>GENERAL ARRANGEMENT PLAN - SHEET 1</td> </tr> <tr> <td>130486-ACOR-CV-DWG-055002</td> <td>GENERAL ARRANGEMENT PLAN - SHEET 2</td> </tr> </tbody> </table>	DRAWING NUMBER	DRAWING TITLE	130486-ACOR-CV-DWG-015001	COVER SHEET AND DRAWING INDEX	130486-ACOR-CV-DWG-015101	LEGENDS SHEET	130486-ACOR-CV-DWG-015102	NOTES SHEET 1	130486-ACOR-CV-DWG-015103	NOTES SHEET 2	130486-ACOR-CV-DWG-015201	KEY PLAN	130486-ACOR-CV-DWG-045001	BULK EARTHWORKS PLAN	130486-ACOR-CV-DWG-045101	BULK EARTHWORKS SECTIONS - SHEET 1	130486-ACOR-CV-DWG-045102	BULK EARTHWORKS SECTIONS - SHEET 2	130486-ACOR-CV-DWG-055001	GENERAL ARRANGEMENT PLAN - SHEET 1	130486-ACOR-CV-DWG-055002	GENERAL ARRANGEMENT PLAN - SHEET 2
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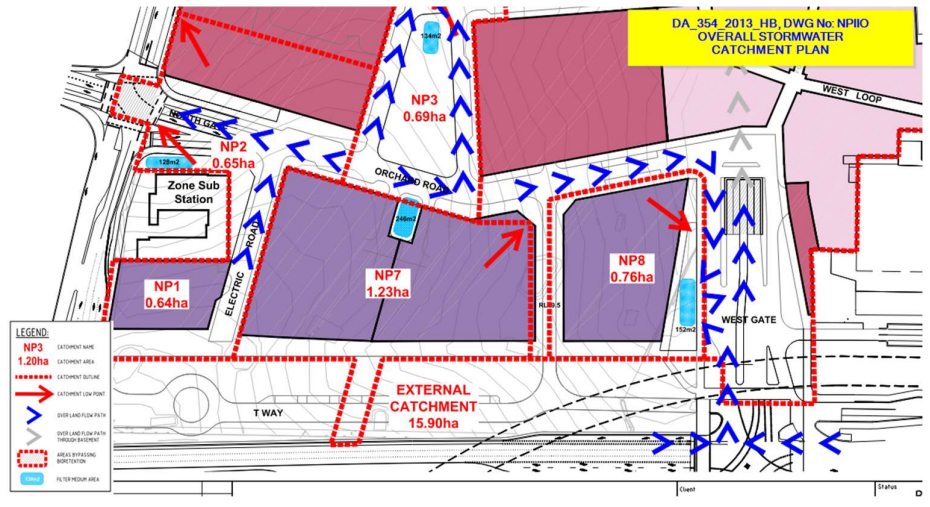
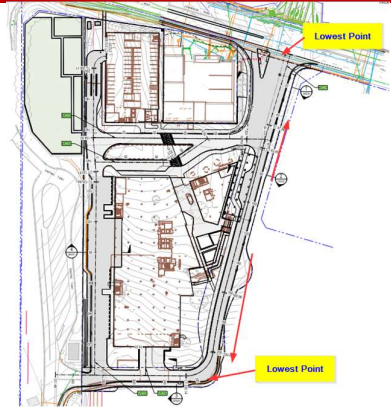


Submission	Themes	ACOR Response
		<p>130486-ACOR-CV-DWG-055003 GENERAL ARRANGEMENT PLAN - SHEET 3</p> <p>130486-ACOR-CV-DWG-055004 GENERAL ARRANGEMENT PLAN - SHEET 4</p> <p>130486-ACOR-CV-DWG-055005 GENERAL ARRANGEMENT PLAN - SHEET 5</p> <p>130486-ACOR-CV-DWG-055006 GENERAL ARRANGEMENT PLAN - SHEET 6</p> <p>130486-ACOR-CV-DWG-065001 ALIGNMENT CONTROL PLAN</p> <p>130486-ACOR-CV-DWG-065201 TYPICAL ROAD CROSS SECTIONS</p> <p>130486-ACOR-CV-DWG-065301 ROAD LONGITUDINAL SECTIONS - SHEET 1</p> <p>130486-ACOR-CV-DWG-065302 ROAD LONGITUDINAL SECTIONS - SHEET 2</p> <p>130486-ACOR-CV-DWG-065303 ROAD LONGITUDINAL SECTIONS - SHEET 3</p> <p>130486-ACOR-CV-DWG-065601 TYPICAL ROAD DETAILS</p> <p>130486-ACOR-CV-DWG-085401 STORMWATER CATCHMENT PLAN</p> <p>130486-ACOR-CV-DWG-085501 STORMWATER QUALITY - CATCHMENT PLAN</p> <p>130486-ACOR-CV-DWG-095001 PAVEMENT PLAN</p> <p>130486-ACOR-CV-DWG-095301 PAVEMENT DETAILS</p> <p>130486-ACOR-CV-DWG-105001 RETAINING WALL ALIGNMENT - CONTROL PLAN</p> <p>130486-ACOR-CV-DWG-105201 RETAINING WALL LONG SECTIONS - SHEET 1</p> <p>130486-ACOR-CV-DWG-105202 RETAINING WALL LONG SECTIONS - SHEET 2</p> <p>130486-ACOR-CV-DWG-165101 VEHICLE SWEEP PATH PLAN</p>
The note on the civil plans which states "note: only construct roads and bulk excavation are included in the early works"	Civil Plans	ACOR: To ensure we address this comment accurately, could Council please clarify the specific drawing numbers or reference points associated with this note?



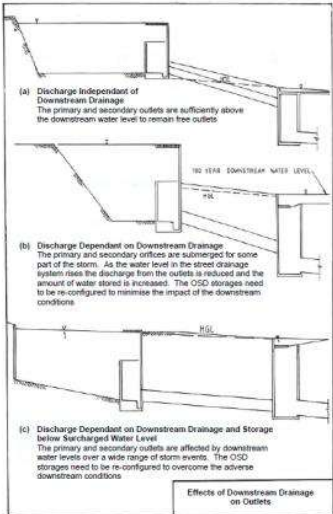
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<p>kerbs, gutters, footpaths, final road build up and surface are not included in early works and are shown only for information” the future surface levels can only be vary by 100mm or less is required to be clarified. The surface level will be fixed by this Development Application approval hence the earthwork plan, cut and fill, and retaining wall (including ToW, BoW, long section) shall be provided on a separate plan any batter shall be 1:4.</p>		<p>However, the civil constructions work is split into two different packages Early Works and Main works design packages. Each package will capture different civil elements as the following:</p> <ol style="list-style-type: none"> 1- Early Works design package: this will capture mainly the temporary construction access roads and main works stormwater drainage network including underground on-site detention basin (OSD). Installation of this OSD has been approved under a Part 5 (REF) approval. 2- Main Works design package: this will capture main roads pavement including the kerb, gutter, landscape and footpath. The approval path for Main works State Significant Development Application (SSDA) <p>During the design of Early Works access roads intentionally the finish level adopted to allow minimum earthworks to construct the main works roads by reducing the levels to allow the pavement layers for the main works road.</p> <p>The design has adopted Hill Shire Council and the geotechnical recommendation which allow up to 1V:2H batter slope (refer to Design Guidelines Subdivision/Developments, Table 3.9)</p>
<p>Engineering Comments</p> <p>Stormwater:</p> <p>Concentrating stormwater surface flows into the adjoining site will not be permitted. The proposed dispersion trench is not supported. Refer to Section 4.4 - Lawful Point of Discharge of Council’s Design Guidelines Subdivisions/ Developments.</p>	<p>Stormwater surface flows</p>	<p>ACOR: Noted. Please be advised that the site grading has been designed to manage surface runoff within the hospital site without causing concentrated stormwater flows.</p>
<p>The design of the stormwater including Water Sensitive Urban Design shall be consistent with the approved stormwater management strategy under Masterplan DA 1604/2004/HB (as amended) and DA 354/2013/HB (as amended).</p>	<p>WSUD</p>	<p>ACOR: The design has incorporated the recommended Stormwater Management Strategy and Water Sensitive Urban Design (WSUD), specifically utilising principles for the main overland flow path and the low points on the northern and southern sides of the site. <i>(Refer to the Hyder Stormwater Management Plan – Level 2 DA Addendum, DA 354/2013/HB).</i></p>

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<p>The capacity of the stormwater system into which stormwater from the development discharges into, must be checked/analysed. Please note that the check/analysis shall be carried out to the legal point of discharge to ensure that the street pits will not be surcharged during minor events up to the 10 years ARI storm event and up to the 20 years ARI storm event for the sag pit.</p>	<p>Stormwater system capacity</p>	<p>ACOR: A 1,000 m³ storage capacity has been incorporated into the stormwater drainage design. This ensures that the discharge from the developed hospital site into the Council system adheres to the pre-development flow rates by meeting the required Permissible Site Discharge (PSD) and Site Storage Volume (SSV) targets, as outlined in Table 4.14 of the Council's Design Guidelines. Please refer to the design report for more details. A holistic analysis of the Council's network necessitates the current stormwater drainage design, specifically for the pipes located on the southern side of Commercial Road, which connect to the lawful point of discharge.</p> <p>This design must include:</p> <ul style="list-style-type: none"> - Flow rates for various design rain events (e.g., 5% AEP, 10% AEP, 1% AEP, etc.). - The Hydraulic Grade Line (HGL) and its counterpart rain event <p>The existing stormwater infrastructure's capacity will be verified relative to the discharge rates of the new hospital. Coordination with the Council will continue into the detailed design stage to address any evolving technical requirements.</p>
<p>The Rainfall Intensities shall be consistent with Section 4.10 Council's Design Guidelines Subdivisions/ Developments. Similarly, the duration of the analysis shall be extended to 72 hours.</p>	<p>Rainfall Intensities</p>	<p>ACOR: The hydraulic analysis for the stormwater drainage design was conducted using DRAINS software, which incorporated the requirements of Section 4.10 of the Council's Design Guidelines for Subdivisions/Developments.</p>
<p>Details of what the applicant is proposing with respect to stormwater design is required (i.e Lawful Point).</p>	<p>Stormwater design</p>	<p>ACOR: The Early Works design package includes the stormwater drainage plan, which defines the Legal Point of Discharge (LPD). Specifically, the design drawings indicate that Pit A4 on Commercial Road, located at the north-east of the project site, will be used as the Lawful Point of Discharge.</p>

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<p>Check whether the OSD is impacted by Drowned outlets. Refer to Figure 6.3 of the On-site Stormwater Detention R3, of the Handbook Upper Parramatta River Catchment Trust, and the snapshots below:</p> 	<p>Impact of Drowned outlets on OSD</p>	<p>ACOR: Noted. This analysis will require the current stormwater drainage design of Council's network, specifically for the pipes located on the southern side of Commercial Road, which connect to the lawful point of discharge.</p> <p>This design must include:</p> <ul style="list-style-type: none"> - Flow rates for various design rain events (e.g., 5% AEP, 10% AEP, 1% AEP, etc.). - The Hydraulic Grade Line (HGL) and its counterpart rain event <p>Coordination with the Council will continue into the detailed design stage to address any evolving technical requirements.</p>
<p>Options "B and C" will not be supported, therefore, ensure the depth of the OSD is reduced and Options "B and C" are avoided</p>	<p>Options "B and C" Depth of OSD</p>	<p>ACOR: Noted.</p>



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<p>Max gutter width is 2.5m for the 100 years stormwater with max 200mm bonding depth and shall not be extended into private land.</p>	<p>Max gutter width</p>	<p>ACOR: Noted</p>
<p>Any discrepancy or non-compliance with the Council's Design Guidelines for Subdivision/Developments (dated December 2023) or the relevant Council DCP—particularly regarding civil works, stormwater, traffic, and access—may result in the refusal of a future Section 68 permit application.</p>	<p>Council's Design Guidelines for Subdivision/Developments</p>	<p>ACOR: Noted</p>
<p>Waterways Comments The site is not a flood-controlled land and is therefore not subject to Council's DCP Part C Section 6 – Flood Controlled Land. Additionally, there are berms/mounds along the southern edge of Commercial Road and the eastern edge of Windsor Road that, in addition to the roads, would prevent external overland flows from reaching the subject site. Overland flooding and the potential for it to be redirected or obstructed by the proposed hospital development is insignificant and is therefore not seen as an issue for the site. However, the entry into basement carparking levels (if any) need to be protected from local overland flows within the driveway/private road up to the probable maximum flood (PMF) event. This can be investigated through a desktop analysis not a full flood study.</p>		<p>ACOR: Noted. The risk of overland flow entering the basement is negligible, as the proposed site grading directs runoff away from the car park access ramps. Furthermore, the hydraulic design includes a transverse grate drain at the basement entrance and a comprehensive internal drainage network. Collected runoff will be managed via a pump-out system discharging to the site's primary stormwater drainage network.</p>
<p>Stormwater: • Concentrating stormwater surface flows into the adjoining site will not be permitted. The proposed dispersion trench is not supported. Refer to Section 4.4 - Lawful</p>		<p>ACOR: Noted. Please be advised that the site grading has been designed to manage surface runoff within the hospital site without causing concentrated stormwater flows. Hydraulic modeling conducted via DRAINS confirms that the overland flow path remains safe and is entirely contained within the site boundaries during events up to and including the 1% AEP.</p>



Submission	Themes	ACOR Response
Point of Discharge of Council's Design Guidelines Subdivisions/ Developments.		

Yours faithfully,
ACOR CONSULTANTS PTY LTD

A handwritten signature in black ink that reads 'Rami'.

Rami Beshay
Principal Engineer - Civil