



Your ref: SSD 10399
File no MC-20-00009

2 March 2021

Department of Planning Industry and Environment
GPO Box 39
SYDNEY NSW 2001

Recipient Delivery deana.burn@planning.nsw.gov.au

Attention: Ms Deana Burn

Dear Ms Burn,

SSD 10399 – Clunies Ross Street, Prospect

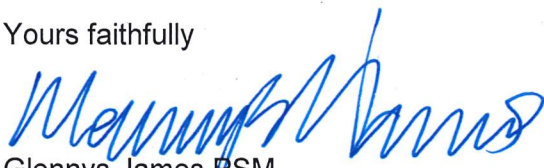
Thank you for your correspondence dated 11 February 2021 requesting our advice and comments on the amended plans for the State Significant Development proposal lodged under Part 4 of the Environmental Planning and Assessment Act 1979 ("the Act") for Prospect Logistics Centre at Clunies Ross Street, Prospect, which is a State Significant Development proposal under section 4.36 of the *Environmental Planning and Assessment Act 1979*.

The amended plans have been reviewed by our officers and our comments and issues to be addressed are again listed in the attachment to this letter.

We request that the matters detailed in the attachment to this letter are comprehensively addressed.

If you would like to discuss this matter further, please contact Judith Portelli, our Manager Development Assessment, on 9839 6228.

Yours faithfully



Glennys James PSM
Director Planning and Development

Connect - Create - Celebrate

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Blacktown Council's submission to SSD 10399

It is noted that Warehouse 1 and part of Warehouse 7 are located within the Blacktown Local Government Area, whilst the remainder of the site is located within the Cumberland Local Government Area. The issues raised below are specific for that part of the development within the Blacktown Local Government Area.

Matters to be considered and addressed:

1. Planning and Design

a. Parking rates

- The proposed car parking rates are still not satisfactory and do not comply with the current rates applied across the Blacktown Local Government Area, specifically areas which also fall under State Environmental Planning Policy (Western Sydney Employment Area) 2009.
- The components in the Blacktown Local Government Area should be amended to provide the following rates:
 - Warehouse - 1 space per 100 m² GFA
 - Office – 1 space per 40 m² GFA
 - Café – 1 space per 10 m² of dining area and 1 space per 2 employees.
- The car parking rates are a minimum control and not a maximum control.

2. Drainage

a. General

- The subject site is situated within 2 separate LGAs (Blacktown Council and Cumberland Council). The proposed stormwater quality for the overall development is split into catchments to target the water quality requirements for the particular Council. Notwithstanding this, the stormwater system from the overall development is proposed to be discharged to the regional detention basin / wetland located and managed by Blacktown City Council. Therefore, the drainage design for the entire development must be amended to meet Blacktown City Council's guidelines which include (but are not limited to):
 - BCC DCP 2015 including Part J – Water Sensitive Urban Design and Integrated Water Cycle Management
 - WSUD Developer Handbook with MUSIC modelling and design guide 2020
 - BCC WSUD Standard Drawings A(BS)175M
 - BCC Engineering Guide for Development 2015
 - BCC Works Specification 2005 – Civil land development.

If the above cannot be met for the Cumberland Council catchment draining to the Blacktown City Council regional basin, an amended stormwater strategy is required to divert this catchment away from the basin and discharge within the Cumberland Council LGA.

- Clarity is required in relation to the combined area of the site. The response letter by Costin Roe Consulting (dated 8 December 2020) confirms the development site area to be 18.66 hectares, however no changes have been made to the engineering plans and MUSIC models. Drawing DA40(D) of the engineering plans (dated 9 December 2020) and MUSIC models depict a total area of 17.59 hectares. All areas, including the Aboriginal Heritage area, is to be included in the MUSIC models.
- A revised dam break assessment of the existing regional detention basin with the proposed modifications is required. To date the existing dam break assessment requested has not been undertaken to the required level of detail. A separate dam break report is to be provided. This report is to include the following:
 - A 2D hydraulic assessment must be undertaken to support the dam break assessment.
 - Cut/fill plan showing earthworks.
 - Dam failure is to be modelled using Froelich or other method endorsed by DSNSW.
 - Clear extents must be provided for the following scenarios:
 - Flood depths and levels no dam break 1% AEP
 - Flood depths and levels dam break 1% AEP
 - Difference map no dam break 1% AEP v dam break 1% AEP
 - Flood hazard and levels no dam break 1% AEP
 - Flood hazard and levels dam break 1% AEP
 - Flood depths and levels no dam break PMF
 - Flood depths and levels dam break PMF
 - Difference map no dam break PMF v dam break PMF
 - Flood hazard and levels no dam break PMF
 - Flood hazard and levels dam break PMF.
 - Consequence category assessment:
 - A PAR assessment for the 1% AEP and PMF flood events, both with and without the dam break.
 - Comment on the Basin Embankment Stability as a result of moving earth from one side of the dam to the other.

- Any flows that are discharging to Blacktown Council's drainage network, including any flows from the area under Cumberland Council control, are to meet all Blacktown Council's water quality targets and be located on land under Blacktown Council control to ensure ongoing monitoring and maintenance.
- The WSUD design is to capture a minimum of 90% of the post development average annual load of hydrocarbons and oils. Council does not accept the proposition in Section 7.4.7 of the Civil Engineering Report by Costin Roe Consulting dated 4 June 2020 which states that the proposed development is expected to produce low source loadings of hydrocarbons and hydrocarbons will be treated via bio-retention swales. Council does not accept swales for the treatment of hydrocarbons. Council's approved criteria can be achieved with a number of alternatives below:
 - GPTs can be provided as a stand-alone device prior to discharge from the site including all areas located in BCC. GPTs are to have an oil baffle able to trap and contain oil or hydrocarbons and sized to treat a minimum 2EY flow considered as 75% of the 1EY flow. The GPTs are to be located in an area that can be easily accessed by trucks for maintenance. The approved GPTs should comply with Section 11.16.1 of Council's WSUD Developer Handbook, or
 - If a Stormfilter Cartridge system is proposed to manage the water quality, provide an oil baffle within the Stormfilter chamber to trap and contain oil or hydrocarbons. The oil baffle is to be 250 mm upstream of the Stormfilter weir and extend 400 mm below the weir level for a 690 cartridge. The minimum length of the Stormfilter weir (L) is to be increased to provide a maximum velocity of 0.4 m/s under the baffle during peak flow (i.e. $L > Q_{20} / (0.4 \times 0.25)$ or $L > 10 \times Q_{20}$ in m, where Q_{20} is in m^3/s). Provide calculations

b. MUSIC modelling

- The Blacktown water quality targets are to apply to all parts of the site that drain to the Blacktown drainage network even where such water originates from the Cumberland Council area. Locate all treatment devices within the Blacktown boundaries.
- SEI modelling is required to ensure that the natural flowpath within the basin is protected. Provide 2 separate and additional MUSIC models (pre and post) to demonstrate that the Stream Erosion Index (SEI) is less than 3.5. The pre-development is to consider a vacant pervious block. Provide all calculations used to determine $Q_{critical}$ and include all areas in the MUSIC models (including Cumberland Council catchments draining to the basin).
- RWTS 3 – 7 do not meet BCC guidelines. The proposed rainwater tanks for the site are to amended to comply with Blacktown City Council guidelines. Ensure that all rainwater tanks provide the minimum 80% non-potable water reuse. Allow for a 10% loss in rainwater tank size volume in MUSIC to that shown on the design plans below the overflow invert to allow for anaerobic zones and

mains water top up levels (i.e. where a 100 kL tank is specified on the drainage plan, it is to be modelled as 90 kL in MUSIC).

- For watering landscaped areas only (excluding turf areas), allow 0.4 kL/year/m² as PET-Rain.
- For industrial developments, allow for internal rainwater reuse of 0.1 KL/day per toilet/urinal. However, where the site is occupied say 5 days per week the daily usage rate is to be reduced by 5 / 7.
- Ensure that the areas draining to surface inlet pits with OceanGuards match the engineering plans.
- Ensure that Blacktown Council's specific MUSIC modes are used for the total development area draining to the devices.
- The minimum Stormfilter chamber area is to be No. of Cartridges x 0.177 m²/cartridge excluding the area of the weir.
- Ocean Protect has advised that the maximum storage permitted below the Stormfilter weir, to ensure effective operation of the filter cartridges, is limited to an equivalent volume derived from 2.0 mm of rainfall (20 m³/Ha) without losses, falling over the site area that drains to the Stormfilter chamber (ignoring any bypass area).
- All roads and hardstand areas are to be modelled as 95% impervious.
- "R1 RW Tank" node is missing 400 m² of roof area. This amendment, in conjunction with, the above amended results in the BCC MUSIC model, fail in meeting Council's required pollution reduction targets. Amend the model as required.
- It is acknowledged that there is no development proposed within the Aboriginal Heritage area located south-east of the site and this area has not been included in the provided MUSIC model. However, this area appears to drain directly into the proposed development and affect the proposed stormwater system. The options below are to be considered to ensure this area is managed:
 - Where levels permit, relocate the proposed retaining walls further away from the Aboriginal Heritage area and provide a catch drain with a series of pits and pipes at the top of the wall just clear of the heritage zone to capture the 5% AEP flows and discharge these flows independently to the wetland area.
 - Where the retaining walls are not relocated or it is too difficult to discharge an area independently to the wetland, then this area will need to be included in the MUSIC model as a "Forest" node.
- Provide amended electronic copies of the amended XP-RAFTS, DRAINS, MUSIC and flood model used to assess Water Cycle Management Strategy for the development. Ensure that the correct models are submitted and are consistent with the engineering plans.

c. **DRAINS modelling**

- The DRAINS models for the existing and proposed scenarios are inconsistent. The existing precinct model includes only the 2 and 9 hour storm durations, whereas the proposed precinct model includes durations up to 24 hours for some storm events. It is noted that the critical storm duration seems to be 12 hours for the 0.5% AEP and 0.2% AEP storm events in the proposed precinct model. This is in contradiction with the Water Cycle Management report which states that 2 hour and 9 hour are the critical durations for the basin. Ensure consistency between the modelling and provide a range of storm durations for each event in the existing and proposed models to ensure the correct critical storm durations are implemented. Provide amended DRAINS models subsequently.

d. **Specific notes**

- Civil Engineering Report Incorporating Water Cycle Management Strategy by Costin Roe Consulting, project no. C013251. 06-03b, revision B dated 9 December 2020:
 - Amend the results in Section 6 in conjunction with the changes highlighted above.
 - Insufficient information is provided in relation to the flood assessment. A comprehensive flood assessment is required for the development in conjunction with the BCC guidelines and SEARs. All information must be provided including which software was used for the assessment, methodology, calibration of the flood model to ensure consistency of the flood behaviour documented by Council, rainfall data, catchments, hazard and flood difference maps, flow velocities, hydraulic categories, assumptions, etc.
 - Section 7.4: Amend the MUSIC model reference to include the latest model.
- Engineering Plans by Costin Roe Consulting dated 3 June 2020:
 - Considering that the stormwater system for the entire development will be discharged to the regional devices managed by Blacktown City Council, the engineering plans for the total development are to be amended to comply with Blacktown City Council's guidelines which include (not limited to):
 - BCC DCP 2015 including Part J – Water Sensitive Urban Design and Integrated Water Cycle Management
 - BCC WSUD Developer Handbook with MUSIC modelling and design guide 2020
 - BCC WSUD Standard Drawings A(BS)175M
 - BCC Engineering Guide for Development 2015
 - BCC Works Specification 2005 – Civil land development.

- The internal pipe network is to be designed in accordance with Council's Engineering Guide for Development 2005 to carry the 5% AEP (20 year ARI) storm flows.
- The 1% AEP flows from the site are to be directed to the OSD.
Demonstrate how the surface flows in excess of the pipe capacity are directed to the OSD basin.
- Provide step irons at 300 cts for pits deeper than 1.2 m.
- Show how the roof water gets to the rainwater tanks. Provide a separate system for roof water and surface drainage. Pits between the roof lines (i.e. charged pipes) are to be sealed.
- Charge line cleanout pits are to be provided at the low point of all charge line systems for the rainwater tanks, to facilitate cleaning of the system.
- Provide pit numbers/identifications on all plans.
- On drawing Co13251.0-DA42, all proposed retaining walls are to be located within the site boundaries.
- On drawing Co13251.0-DA44, show the impervious area in % adopted for each catchment in the hydrology model.
- On drawing Co13251.0-DA45:
 - The Stormfilter tank is to include a baffle 400 mm below the Stormfilter weir and set 250 mm upstream from the weir to retain floatables including oils for the 690 mm cartridges.
 - Provide metal mosquito proof mesh welded over the access grate(s) into the Stormfilter Chamber.
 - Provide an energy dissipater for each inlet pipe into the filter storage chamber. The dissipaters are to be clearly labelled (i.e., provide notes).
 - There are insufficient access points for the below ground Stormfilter chamber. Access points must be a minimum 900 mm by 900 mm and are positioned such that the maximum distance from any point in the tank to the nearest access is not greater than 2 m. Attach metal mosquito screens under where there are grates.
 - The weir height is to be 770 mm + false floor thickness.
 - The DCP grates above the overflow pit are to be 1200 x 1200.
 - Provide galvanised equivalent step irons or ladders at 300 cts for all entry points to the tanks.
 - The minimum length of the Stormfilter weir (L) is to be increased to provide a maximum velocity of 0.4 m/s under the baffle during peak flow (i.e. $L > Q_{20} / (0.4 \times 0.25)$, or $L > 10 \times Q_{20}$ in m, where Q_{20} is in m³/s). Provide calculations.
- Provide details of the proposed CDS GPT units (where used) including sections, levels and calculations of treatable flow rates.

- As noted above, any flows that are discharging to Blacktown Council's drainage network, including any flows from the area under Cumberland Council control, are to meet all Council's water quality targets and be located on land under Blacktown Council control to ensure ongoing monitoring.
- OceanGuards should treat a maximum of 1,000 m² of non-roof areas and 1,500 m² of roof areas. All OceanGuards are to be clearly notated as "200 micron OceanGuards".
- OceanGuards treating only surface flows require a minimum clear depth of 500 mm below the grate to any inlet or outlet pipe obvert. OceanGuards treating surface flows and upstream pipe flows require a minimum clear depth of 500 mm from the invert of the upstream pipes to be treated, to the obvert of the outlet pipe. Where these pits are treating upstream pipe flows, the inverts of all pipes in and out of the pit are to be shown.
- All proposed Stormfilter Cartridge Systems are to be designed in accordance with BCC guidelines. Provide all details of the proposed Stormfilter Cartridge system including plan view, sectional view, levels, cartridges, calculations etc.