

# ANGEL PLACE LEVEL 8, 123 PITT STREET SYDNEY NSW 2000

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Patrick Copas
Department of Planning and Environment
Via email: <a href="mailto:patrick.copas@planning.nsw.gov.au">patrick.copas@planning.nsw.gov.au</a>

Dear Patrick.

# RESPONSE TO REQUEST FOR FURTHER INFORMATION WOOLWORTHS WAREHOUSE AND CUSTOMER FULFILMENT CENTRE, MARRICKVILLE (SSD-10468)

This letter responds to the Request for Additional Information ('RFI') letter issued by the Department of Planning and Environment ('DPE') dated 10 November 2021.

Since the RFI letter was issued, the proponent and relevant specialist consultants have been working closely with the Inner West Council ('Council') and Sydney Water to resolve the matters raised by Council regarding the proposed diversion of the existing stormwater channel.

This has included the preparation of updated plans and reports which are submitted in association with this written response, including:

- Appendix A Architectural Drawings prepared by Nettleton Tribe (updated 16 March 2022)
- Appendix B Landscape Drawings prepared by Site Image
- Appendix C Civil Drawings prepared by Richmond & Ross
- Appendix D Flood Management Plan prepared by Richmond & Ross

Copies of the updated Civil Drawings and Flood Management Plan were submitted to Council and Sydney Water prior to preparing this response.

The Architectural Drawings and Landscape Drawings have since been updated to incorporate the relevant changes and responses to the issues raised by Council. The proposed plan changes have resulted in minor changes to the gross floor area ('GFA') since the lodgement of the original architectural as outlined in the following table.

It is noted the 'CFC' and 'CFC Warehouse' calculations have been combined. The area previously separately referred to as 'CFC' comprises the CFC Hoist Area and the Pick-Up on the Ground Floor Plan. These areas are directly associated with the 'CFC Warehouse' operations and accordingly, are appropriately categorised as 'warehouse, distribution or industrial' floorspace.



Table 1 GFA and Car Parking Summary

Land Use	Original GFA (m²)	Original Car Parking	Updated GFA (m <sup>2</sup> )	Updated Car Parking
CFC Warehouse	21,558	328 (including	21,560	322 (including 12
CFC/WooliesX Office	8,361	seven accessible spaces and four pick-up spaces)	7,762	accessible spaces and four pick-up spaces)
Speculative Warehouse	8,578	47	8,578	47
Speculative Office	596		598	
Total	39,093	375 spaces (plus 140 van parking spaces for the CFC Warehouse)	38,498	369 (plus 140 van parking spaces for the CFC Warehouse)

Source: Nettleton Tribe

Emailed correspondence was issued by Sydney Water on 24 January 2022 which stated:

Sydney Water will not object to any proposal within this development site if it meets the following requirements:

- New deviated stormwater culvert should not compromise the existing stormwater capacity.
- Any new building or permanent structure must be minimum 600mm away from the
  outside face of the new deviated stormwater channel (this is a site specific agreed
  position in lieu of standard 1000 mm clearance) for unlimited depth and height.

The updated Architectural Drawings (refer **Appendix A**) and Civil Drawings (refer **Appendix C**) have been prepared to respond to Sydney Water requirements.

Emailed correspondence was also issued by Inner West Council on 4 February 2022 which stated:

The attached Flood Management Plan (Revision F) and the attached plans have been reviewed by Council and are now acceptable in terms of flood protection and the realignment of the Stormwater Culvert.

The detailed matters raised by Council in their detailed submission are addressed in the following table (and supporting plans and reports listed on page 1).



Table 2 – Response to Inner West Council Response to Submissions Report

Comment	Response
Flooding	
i. The amended proposal has reduced the 1 in 100-year flood level applicable to the site from 4.81m to 4.61m AHD (200mm) with no explanation on how this was achieved given that no additional flood storage was proposed. Further clarification on how this was achieved will need to be provided. Given the extent of flooding on the site and the impacts that may occur off site it recommended the flood model be peer reviewed by an independent consultant such as GRC Hydro who has done a lot of work for the Sydney Metro project in the area and has good knowledge of the drainage system.	Follow up discussions between Council and Richmond & Ross ('R&R') confirmed there were no alterations made to the predevelopment model conditions.  Council advised the Flood Planning Level ('FPL') should be based on the freeboard being added to the 100 year flood level in the blockage scenario. The updated flood model incorporates the requested changes and sets the FPL 300mm above the 100 year flood level for the blockage scenario. The proposed development has a finished floor level ('FFL') of 4.91m AHD which is above the 4.86m AHD FPL.  The updated Flood Management Plan dated January 2022 (Rev F) was confirmed as acceptable by Council in emailed correspondence on 4 February 2022.
ii. The proposed floor levels have not been raised to provide the minimum 300mm freeboard as previously advised to comply with Council's Flood Management DCP. The minimum floor levels of the proposed development must be at 4.91m AHD (based on the current flood level that still needs to be verified). The proposal to provide threshold ramps is unsatisfactory and is not supported;	The finished floor level has been adjusted to 4.91m (AHD) as requested by Council.  The updated Flood Management Plan dated January 2022 (Rev F) was confirmed as acceptable by Council in emailed correspondence on 4 February 2022.
iii As previously advised the improvement post development in flood depths is achieved by collecting the flood waters by pit inlets and diverting them to an underground flood detention of 1200m³ volume equal to the existing site's above ground 1% AEP flood storage. The current stormwater plans detail very little inlet capacity to adequately capture these overland flows arriving on the site. It	The updated Flood Management Plan dated January 2022 (Rev F) includes additional information regarding the pit inlet curves – refer (new) Appendix E in the updated report.  The updated Flood Management Plan was confirmed as acceptable by Council in



Comment	Response
appears the inlet capacity is only provided by a single 2.4m kerb inlet pit (Pit 4A) and a single 900x900 grated pit (Pit 4B) which is unsatisfactory.	emailed correspondence on 4 February 2022.
iv Additional information will be required on the volume of flows entering the site and the inlet capacity provided on site to capture these flows. HEC-22 Inlet capacity calculations shall be provided, tabulated on a spreadsheet (preferably excel) so the inlet capacity can be verified.	Predevelopment flows entering the site have been retained as per the flood model provided by Council. Inlet curves for the primary flood chamber inlet pits have been generated using the HEC-22 method.  The updated Flood Management Plan dated January 2022 (Rev F) includes additional information regarding the pit inlet curves – refer (new) Appendix E in the updated report.  The updated Flood Management Plan was
	confirmed as acceptable by Council in emailed correspondence on 4 February 2022.
v. To model the blockage the outlet from the flood storage chamber (which also drains the site) was modelled as 100% blocked for the 100yr ARI, however no blockage of the inlet structures has been modelled as previously requested. Using blockage of the outlet as a proxy for inlet blockage	Blockage factors as per Table 9.5.1 in Book 9 of the Australian Rainfall and Runoff Guidelines have been used in the updated flood model. The grate in a kerb inlet pit is assumed to be fully blocked for the design blockage scenario.
is not acceptable when your flood protection measures are based on the performance of your inlet capacity to adequate capture overland flows. It is recommended that the suggested Design Blockage Factors as per Table 9.5.1 of Book 9 of AR&R be used to model blockage of the inlet pits as shown below;	This is addressed in Section 5.1, bullet-point 6 in the updated Flood Management Plan dated January 2022 (Rev F) which was confirmed as acceptable by Council in emailed correspondence on 4 February 2022.



### Comment

### Type of structure Design blockage Severe blockage Sag kerb inlets Kerb inlet only 0-20% 100% (all cases) Grated inlet only 0-50% Combined inlets Capacity of kerb opening with 100% blockage of grate Kerb inlet only On grade kerb inlets 0-20% 100% (all cases) 0-40% (longitudinal bars) Grated inlet only 0-50% Combined inlets combined inlet capacity on continuous grade

vi The blockage factor used for each pit shall be tabulated in any future submission

Blockage factors as per Table 9.5.1 in Book 9 of the Australian Rainfall and Runoff (AR&R) Guidelines have been used in the

updated flood model. The grate in a kerb inlet

pit is assumed to be fully blocked for the design blockage scenario.

Response

This is addressed in Section 5.1, bullet-point 6 in the updated Flood Management Plan dated January 2022 (Rev F) which was confirmed as acceptable by Council in emailed correspondence on 4 February 2022.

### Stormwater

i. The proposed relocation of the Sydney Water Stormwater channel to Council's Road Reserve (new footpath alignment) is not supported. Removing the Stormwater channel from within the property to encumber Council property is unsatisfactory. Any relocation shall be undertaken within the final lot boundaries of the site. The culvert realignment has been revised to address Council's concerns. The relocated channel is located within the property boundaries, generally parallel with the northeastern setback to Edinburgh Road.

The updated Civil Drawings dated 28 January 2022 (Rev E) were confirmed as acceptable by Council in emailed correspondence on 4 February 2022. These drawings are consistent with the latest version (Rev F, dated 2 March 2022) which have been updated to be consistent with the final architectural and landscape drawings.



### Comment

ii. The channel will be 3000mm wide (assumed internal) and close the surface. No details on cover available over the channel have been provided. The width of the channel will take up the full width of the footpath leaving little room for existing and proposed services in the footpath. In addition due to the width and minimal cover over the channel no meaningful landscaping and trees can be planted. In addition, there will be no room for the relocation of services within the footpath. The existing footpath has Ausgrid power cables and poles, Council stormwater pits and pipes, 150mm water main, Telstra and NBN cables etc. The proposed relocation of these services needs to be detailed on future submission.

iii It is doubtful that the proposed diversion of the channel will have the same hydraulic capacity as the existing channel given that the size is the same, the hydraulic losses produced by the double 90 degree bends and the fact that the grade of the channel has been reduced. This will need to be adequately modelled with a Hydraulic Grade Line Analysis provided to ensure that there are no impacts upstream of the channel bends. I note that the calculation shown on the stormwater plans have shown no loss in capacity by changing the value of Manning's "n" with no justification.

### Response

The updated/final Civil Drawings prepared by R&R include the stormwater channel within the property boundaries, generally parallel with the north-eastern setback to Edinburgh Road.

The proposed culvert is located approximately 1000mm clear of the proposed services zone relocation below the footpath pavement and will not impact on the provision of trees or landscaping within Council's Road reserve.

The updated Civil Drawings dated 28 January 2022 (Rev E) were confirmed as acceptable by Council in emailed correspondence on 4 February 2022. These drawings are consistent with the latest version (Rev F, dated 2 March 2022) which are consistent with the updated architectural and landscape drawings which include the final/agreed stormwater channel alignment.

The previous culvert alignment was based on minimum 6 metre bend radius as requested by Sydney Water. The proposed culvert realignment has since been adjustment to eliminate the double 90 degree bends and increase the bend radius based on further consultation with Council.

The existing culvert is of brick construction. The new culvert is proposed to be precast concrete. The Manning's 'n' values are based on typical roughness values for the existing and proposed materials. Concrete 'n' is 0.012 and brick 'n' is 0.015. Accordingly, the new culvert is smoother.

The proposed grade is based on the start and end inverts at the connection point. As shown in the updated Civil Drawings



Comment	Response
	prepared by R&R, parts of the existing culvert have a shallower grade then the proposed culvert. The shallower section of the existing culvert will govern the capacity of the culvert. The shallowest section of the existing culvert has a nominal unpressurised flow capacity of 5.818m³/s where the proposed culvert has a capacity of 9.719m³/s. Sydney Water have disregarded the surplus capacity and requested the dimensions match the existing culvert.
Traffic	
i. The Traffic Signals design shall be amended to include bicycle lanterns;	The bicycle lanterns will be addressed at the detailed design stage and in conjunction with any other detailed changes required by TfNSW as part of the design, review and formal approval process for the new traffic signal plan.
ii. Although an off-road shared pedestrian/cycle path has been shown on the plans it has not been designed to be a minimum width of 3 metres for its full length as previously advised. This must be shown on the plans.	Updated architectural drawings have been prepared by Nettleton Tribe which provide for a 3 metre wide pedestrian/cycle path along the full-length of Sydney Steel Road, linking to the existing pedestrian/cycle path on the northern side of Edinburgh Road and the existing pedestrian/ cycle path at the southern end of Sydney Steel Road through to Saywell Street/Shirlow Street and Sydenham Station.
iii. Road widening in Sydney Steel Road must be provided and be detailed on the plans to allow for a shared pedestrian/cycle path to be fully within the road reserve. The current plans show part of the path on private property (within the site).	The architectural, landscape and civil drawings have been updated to allow for the road widening in Sydney Steel Road, with a revised property boundary allowing for the shared pedestrian/cycle path to be fully within the road reserve.
iv. The intersection of Bedwin Road and Edinburgh Road has undergone significant changes recently.	Semi-trailer vehicles are the largest proposed vehicle proposing to access the site. Semi-



### Comment

The Traffic and Access report shall clarify what is the largest proposed vehicle to use this intersection to gain access to the site and provide swept vehicle templates to ensure that they can manoeuvre through the intersection. Any changes to the medium islands or roundabout shall be at the applicants cost.

## Response

trailers have general access to the road network unless sign-posted otherwise.

Semi-trailer vehicles currently utilise the intersection of Bedwin Road and Edinburgh Road to access the existing uses on the site, the Marrickville Metro shopping centre and other land uses within the surrounding industrial precinct.

### Arboricultural Impact Assessment

i. Whilst the site and adjacent trees have been assessed by an Arborist the significance and retention values have not been used to inform the design to allow for retention of High value trees.

Note – Seventy-eight (78) high value trees are proposed for removal. It is recommended that many more of the high value trees are retained and protected as a component of the design.

Site Image has confirmed a thorough review of the Arboricultural Impact Appraisal and Method Statement prepared by Naturally Trees was undertaken to optimise the retention of existing trees, balanced with the detailed architectural design and operational requirements for the proposed development.

The proposed development provides for a superior outcome compared to the previous approval which granted development consent for the removal of 55 high category trees and 28 low category trees. Further, the proposed landscape plan includes significant planting of new trees to off-set the proposed tree removal within the current scheme.

Updated landscape drawings have been prepared by Site Image dated 24 February 2022 (Rev F) which provide for a deep landscape setback to the corner of Edinburgh Road and Sydney Steel Road. High quality hard finishes threaded through the landscape will provide a softened and considered landscape response.

Further, the realignment of the Sydney Water channel within the property boundaries has facilitated the planting of 19 additional street trees with appropriate soil volumes to deliver



Comment	Response
	increased tree canopy coverage and shading within the public domain.
ii. An Arboricultural Impact Appraisal (AIA) and Method Statement has been prepared by Naturally Trees (dated 21 May 2020). This report notes that seventy-eight (78) high category trees will need to be removed for the proposal. It is also noted that fifty-five (55) of these were approved for removal under DA201500168. The report recommends that in order to compensate for loss of amenity, consideration should be given to replacement planting within the site. The trees proposed for within the site are small trees such as Tuckeroo, Crepe Myrtle, Dwarf Magnolia and Watergum. It is recommended that more variety in canopy size and tree height is incorporated into the internal planting. Whilst all of the street trees that are currently adjacent the site will be removed, it is noted that the street tree planting will (in the long term) eventually replace the lost canopy in this regard.	Updated landscape drawings have been prepared by Site Image dated 24 February 2022 (Rev F) which provide additional tree species within the plant schedule (Sheet 000) including greater variety in canopy size and tree height. The number of trees to be planted on site has also been increased to 60 trees.
iii. The proposed canopy cover on site is not sufficient. The Landscape SSDA Report prepared by Site Image notes that only 4% of the site will have canopy cover. The canopy cover targets for land zoned IN1 is 25% in both the Inner West Tree Management DCP and the Greater Sydney Commission District Plan.	Updated landscape drawings have been prepared by Site Image dated Site Image dated 24 February 2022 (Rev F) which have increased the proposed tree canopy cover to approximately 1,227m² which equates to 4.48% of the total site area (refer Sheet 801).  The proposed tree canopy coverage calculations do not include the proposed additional street trees along Edinburgh Road and Sydney Steel Road which have been incorporated into the updated landscape drawings. The relocation of the proposed stormwater channel within the property boundaries has enabled 19 new street trees to be provided along Edinburgh Road and Sydney Steel Road with appropriate soil volumes to deliver increased tree canopy



Comment	Response
	coverage and shading within the public domain.
	The District Plan recognises the importance of providing trees along the street frontages to improve amenity and air quality, as well as their cooling properties. It also recognises the contribution that other forms of planting, including ground cover, can make to improving air quality.
	Overall, the revised proposal, including the realignment of the stormwater channel, is consistent with the provisions of the District Plan, which to seeks to minimise conflicts within the street corridors to provide for increased street trees along the frontages and street tree canopy coverage to enhance the public domain.
iv. Tree on adjacent site - In the AIA report prepared by Naturally Trees (dated May 2020) it is noted that Tree 74 (Eucalyptus tereticornis) 'is an important tree on the adjoining property with an existing kerb and hard surfacing near it. The proposal is to demolish the kerb and hardstand and construct a new entry ramp and driveways within its TPZ. These changes are likely to cause harm however all efforts should be made to retain this tree'. The report also recommends tree sensitive construction methods must be implemented.	This comment is noted - refer to point (v) below for relevant response.
v. There is not sufficient detail on the plans to determine if Tree 74 can be viably retained (even with Arborist supervision and tree sensitive methods as recommended). Any proposal that will impact the structural stability or health of a tree on an adjacent site, will require the neighbouring owners consent for removal. It is recommended that the viability of Tree 74 be investigated in detail	The critical area near Tree 74 is the garden bed between the existing driveway and boundary. The area beneath the existing driveway will unlikely have any roots.  The new driveway will be constructed ongrade (without excavation) to ensure successful retention of the tree. The construction methodology will be agreed



Comment	Response
before any further design development so that adjustment can be made if required.	between the structural engineer and arborist to ensure tree is protected.  Appropriate conditions of consent can be provided to accommodate the mitigation and management measures as outlined above.
vi. Proposed trees - Where new trees are proposed within or adjacent to large areas of pavement it is recommended that Strata Vault or similar are installed to provide sufficient non compacted below pavement soil volumes for viable and long term tree growth. It is recommended that Final Landscape Plans include soil volume calculations for each tree.	Updated landscape drawings have been prepared by Site Image dated 24 February 2022 (Rev F) which demonstrate soil volumes for the on-site and street tree planting (refer Sheets 701-703).  The soil volumes are calculated based on the planter bed area and a depth of 1 metre. Where multiple trees share a planter bed, the volume has been divided by the number of trees to provide the volume per tree. These calculations are conservative, noting additional soil depth is available where trees are planted on grade and can access soil in adjacent areas.  Overall, it is considered sufficient soil volume will be available to facilitate the development of healthy root systems based on the proposed site conditions.
vii. Relocation of stormwater culvert – The proposed location of the culvert is not supported because of the direct impact this will have on soil volumes available for the replacement streets on Edinburgh Road and internal landscape trees along this street frontage. The culvert location must be amended so that required deep soil volumes for trees are not constrained. The removal of the existing trees cannot be supported unless the trees are to be replaced in a viable growing environment.	The stormwater culvert has been realigned to be located within the property boundaries, enabling new street trees to be delivered within the road reserve.  Updated landscape drawings have been prepared by Site Image dated 24 February 2022 (Rev F) which include the new stormwater channel location and the proposed street teres.  The updated site plan (refer Sheet 401) shows the proposed location of the new street trees along the Edinburgh Road and Sydney Steel Road frontages. The sections



Comment	Response
	(refer Sheet 402) show the separation distances between the proposed culvert and the service zone location, footpath pavement and street tree planting along the Edinburgh Road frontage. Additional details regarding the tree soil volume areas for both the on-site and street tree planting has also been provided (refer Sheets 701-703).
viii. Soil volumes for trees – The Landscape Plans/Landscape Report must include soil volume calculations demonstrating that street trees and site trees have sufficient soil volumes to allow for the development of healthy root systems. Note – Medium trees ideally require approx. 27-38m³ and large trees approx. 27-39m³ (each) depending on soil conditions. Where trees are planted in shared contiguous planting zones and irrigated the soil volumes may be able to be reduced.	Updated landscape drawings have been prepared by Site Image dated 24 February 2022 (Rev F) including additional details regarding the tree soil volume areas for both the on-site and street tree planting (refer Sheets 701-703).  The soil volumes are calculated based on the planter bed area and a depth of 1 metre. Where multiple trees share a planter bed, the volume has been divided by the number of trees to provide the volume per tree. These calculations are conservative, noting additional soil depth is available where trees are planted on grade and can access soil in adjacent areas.  Overall, it is considered sufficient soil volume will be available to facilitate the development of healthy root systems based on the proposed site conditions, including the garden beds and additional soil volumes in adjacent areas.
<u>Other</u>	
i. It is recommended that any existing overhead power cables along frontages of the site be relocated underground (including any proposed power cables) with appropriate street lighting and new steel standard poles. The street lighting must be designed in accordance with Australian Standard AS1158-Road Lighting and the Network	There are no existing overhead power cables along the frontage of the development site. The power for the streetlights along the site frontage appears to be supplied from the overhead power cables on the opposite side of Edinburgh Road. It is not proposed to



Comment	Response
Standards of Ausgrid and must meet the lighting category required by Council.	excavate Edinburgh Road to relocate these power cables underground.

We have also reviewed the authority/agency responses on the Department's Major Projects website and confirmed that all other matters have been satisfactorily resolved and/or can be addressed within the final consent conditions.

We look forward to confirmation from DPE confirming that all matters have now been satisfactorily resolved and SSD-10468 can be determined.

Please do not hesitate to contact me should you wish to discuss any aspect of this matter.

Yours sincerely,

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Enc: Appendix A - Architectural Drawings

Appendix B – Landscape Drawings

Appendix C - Civil Drawings

Appendix D – Flood Management Plan