Attachment 1 – Shellharbour City Council – Calderwood Concept Approval MOD 4 Application -Detailed Assessment and Comments on Addendum to the RTS – June 2020

Conditions of Approval

Condition A1- Development Description

Council is concerned that this condition is proposed to be amended to refer to documents that are not the latest documents submitted to the Department and that the latest documents are not yet satisfactory to justify the proposed modification these include but are not limited to Water Cycle and Flood Management Strategy, Traffic and Transport response and Open Space provisions.

Council has no suggested rewording at this time due to the inadequacies of the documents lodged with the application.

Condition A2 – Development in Accordance with Plans and Documents

Council is concerned that this condition is proposed to be amended to refer to documents that are not the latest documents submitted to the Department and that the latest documents are not yet satisfactory to justify the proposed modification. eg Water cycle and Flood Management Strategy, Traffic and Transport response and Open Space provisions.

Council has no suggested rewording at this time due to the inadequacies of the documents lodged with the application.

Condition B6 – Urban design

Council is agreeable to this wording.

Condition C5 – Traffic Assessment

Council is agreeable to this wording.

C8 – Retail Floor Area

Council is agreeable to this wording

C9 – Urban Design – Town Centre

Council is not agreeable to the removal of this condition as it is of the view that the condition should remain and be reworded to allow a master planned approach to the siting and design of buildings as well as an emphasis on design and fabric outcomes. The intent of the condition should provide opportunities to ensure that the future planning of the town centre is underpinned by strong design criteria. A review of the new DCS provisions do not sufficiently deal with this.

The principles in the amended DCS are high level and lacking detail that allows proper interpretation of a desired character. The potential consequence will be a built-form outcome that lacks consistency and results in design conflict. A more detailed examination of the street network and public domain, land use mix, built form and design guidelines are required to provide clarity in the desired character.

It is important to note that Council is about to receive a development application for Town Centre South – with no master planning or suitable controls available to Council.

The Town Centre has transformed from the current CUDP significantly and warrants master planning of the proposed 'Town Centre Residential Areas' and 'Town Centre (Retail)' at a minimum. The masterplan will then better inform future design controls around things like built form, accessibility and pedestrian movement as well as active street fronts, and provide some assurance to Council that the Town Centre will be cohesive and successful. Treatment of the interface of the Town Centre Residential - South with the Town Centre and Stage 3A is also very important. The information currently proposed under Section 1.8.3 of the DCS can assist with the preparation of a masterplan.

The master planning should be informed/ supported by documentation such as a retail strategy on the basis that much of the B4 mixed use zoned land is now proposed for residential use.

Based on the above, it is recommended that condition C9 be retained and reworded to read:

C9 Urban Design – Town Centre

Prior to the first application for the Town Centre (Retail and Residential), a masterplan must be developed in conjunction with and to the satisfaction of Shellharbour City Council. The Masterplan must be developed together with a supporting Development Control Strategy for the various Town Centre areas to encourage the following:

- a) Suitable interface treatments between the nominated Town Centre Retail and Town Centre Residential Areas.
- b) Minimisation of land use conflicts through distribution of uses including the consideration of noise, odour, air quality, hours of operation, parking and commercial waste.
- c) Buildings should address and define streets providing a relatively continuous street frontage for safe and attractive circulation.
- d) Maximise active ground floor uses as possible and entrances located directly off the main street.
- e) Provide weather protections for pedestrians in public areas in the form of awnings, sails or other climate appropriate methods.
- f) The creation of a high quality public domain, including equity of access.
- g) Appropriate setbacks and interface to the cemetery.

C12- Local Infrastructure Contributions

Council does not support the proposed amendments to this condition as proposed in the **5 May 2020** document. In this regard, it is considered inappropriate to lessen the certainty of Local Infrastructure Contribution by specifying 'or as otherwise agreed with the relevant Council'. The requested modification to condition A2 (3) specifying that the development that occurs must be generally in accordance will give the level of flexibility needed to consider any alternative provisions under this condition. Council would also like to highlight that the proposed modified areas of land and floor spaces have not been agreed to by Council or negotiated through any letter of offer to enter into a VPA by the proponent.

The condition should also read C12 (d) a - d not g-j It is assumed that this is a typing error.

Council is currently negotiating the upgrade of Calderwood Road outside of the project area as required under the existing condition C12(d) (a) and recommends that the condition be made clearer and state that the road must be to a standard agreed to by Council and a clear timeframe specified. This will then also link to a revised Commitment 23 and the TMAP.

Based on the above it is recommended that subject to the land areas and floor spaces being agreed upon the condition be reworded to:

Condition C12 – Local Infrastructure Contributions

The requirements for local infrastructure for all development carried out pursuant to this Concept Plan approval shall be generally in accordance with the following;

- a) Community facilities the following community facilities as identified Appendix K of the Preferred Project Report are to be provided:
 - a. A temporary community centre (approximately 120-150m2)
 - b. A permanent community centre (approximately 1,120m2), including the dedication of 4000m2 land; and
 - c. Monetary contributions towards library facilities, equivalent to 780m2 floor space.
- b) Open Space the following open space areas are to be provided:
 - a. A total of approximately 21.84ha of open space (made up of local parks, district parks and city-wide parks); and
 - b. Sports fields/active open space of approximately 21.96ha,

Note: the area identified as Johnson's Spur and the ancillary open space areas (made up of drainage reserves and riparian corridors) are not to be included in the open space contributions.

- c) Local Roads contribution towards the following road works are supported. The total cost, apportionment and timing of these works shall be determined in consultation with the Department of Planning, Industry and Environment:
 - a. Upgrade of Marshall Mount Road (referred to in the TMAP as 22, 23 & 24);
 - b. Upgrade of Yallah Road from Marshall Mount Road to Haywards Bay Drive (referred to in the TMAP as 25);
 - c. Upgrade to the intersection of Marshall Mount Road and Yallah Road (referred to in the TMAP as 36);
 - d. Construction of the Tripoli Way extension (referred to in the TMAP as 14, 15 & 16);
 - e. The construction of the intersection of Tripoli Way with the Illawarra Highway (referred to in the TMAP 30);
- d) Other Road Works the following road works are needed to directly access to site and are therefore not to be included in the S94 s 7.11 framework. These will be required as per conditions of approval and the timing will be determined as part of future subdivision approval.

- a. The upgrade of Calderwood Road from the site boundary to Tripoli Way extension (referred to in the TMAP as 32) to be delivered to a standard agreed to by Shellharbour City Council and prior to occupation of Stage one of the Town Centre Retail or by the end of year 2027 whichever occurs first;
- b. Construction of the internal north-south sub arterial road (referred to in the TMAP as 33, 34 & 35);
- c. Upgrade of the intersection of the Illawarra Highway and Yellow Rock Road to provide site access (referred to in the TMAP as 37).

Statement of Commitments

The following comments specifically relate to the proposed amendments to the Statement of Commitments of the Concept Plan Approval.

- a) General comment the latest version of the proposed modification to the Statement of Commitments (dated April 2020) introduces the term 'Relevant landowner/applicant' into the responsibility/timing column. On occasion, this term has been used where the actual commitment refers to the 'Proponent' and may lead to confusion when interpreting and implementing the commitment. Definitions need to be provided as part of the approval and commitments reworded where necessary to clearly specify whether it is a commitment specifically relating to individual developments within the project or the project as a whole.
- b) Commitment 2 Council have not agreed to take ownership of the Johnston's Spur Area. Therefore, the reference to Council in this commitment should be removed. In the event that the Department of Lands does not agree to take ownership of Johnson's Spur, the Developer should explore all options for its future ownership and conservation. This should include providing a mechanism(s) such as funding and management plans, to control and manage the land to promote greater opportunities for ownership/ stewardship.
- c) Commitment 3 The example of a suitable maintenance period for the Environmental Reserves should be amended to 5 years as recommended in Council's earlier submission
- d) Commitment 4 As per the comment above The example of a suitable maintenance period for the Riparian Corridors should be amended to 5 years as recommended in Council's earlier submission.
- e) Commitment 5 The proposed changes to the commitment are not accepted by Council as they are part of a wider unresolved issue relating to the application of possibly multiple VPA's and the appropriate provision of community infrastructure. The commitment has been amended to recognise multiple developers and possibly multiple VPAs to be entered into which solely relate to those items that are required for each individual land owner/developer. It should also be demonstrated that all relevant landowners are agreeable to the commitments being made by Lendlease on their behalf. The commitment does not acknowledge infrastructure that serves demand across ownership boundaries e.g. community centre, district parks etc. The Department should not determine the application until this issue is resolved to the satisfaction of Council.
- f) Commitment 6 Council is currently not in a position to agree with Appendix M as it relates to unsettled issues of open space provisions, embellishment and delivery. It should also be demonstrated that all relevant landowners are agreeable to the commitments being made by Lendlease on their behalf. The Department should not determine the application until this issue is resolved to the satisfaction of Council.

- g) Commitment 7 Council is currently not in a position to agree with Appendix M as it relates to unsettled issues relating to the provision of community infrastructure.
- h) Commitment 8 Council is currently not in a position to agree with Appendix M as it relates to unsettled issues relating to the provision of community infrastructure.
- i) Commitment 9 Council is currently not in a position to agree with Appendix M as it relates to unsettled issues relating to the provision of community infrastructure.
- j) Commitment 18 Council is of the view that the commitment must remain and be reworded to correlate with Council's recommended retention and rewording of Condition C9 including a desired character for the future Town Centre. Following the completion of the Masterplan for the Town Centres Retail and Residential, a revised DCS should be prepared in consultation with Shellharbour City Council and submitted to the Department of Planning, Industry and Environment for approval. Currently the proposed modifications to the DCS provide little guidance for future developers wishing to build in the town centre and further adds to the complexity of development assessment for any applications for the built form.
- k) Commitment 19 The proposed changes to the commitment cannot be accepted as Council has not agreed to the modified DCS.
- I) Commitment 20 The proposed changes to the commitment cannot be accepted as Council has not agreed to the modified DCS.
- m) Commitment 21 The proposed changes to the commitment cannot be accepted as Council has not agreed to the modified DCS or Appendix M.
- n) Commitment 23 These measures should be consolidated and listed so those reviewing the approval don't need to look through the old documents that lack detail to resolve what civil works both within the site and external to the site are included in the Statement of Commitments and are identified as required by the Proponent. Also the commitment should be reworded to specifically refer to the road hierarchy specified for the upgrade of Calderwood Road for its full length extending outside of the project area as required under Condition C12(d) (a) and as identified in the TMAP and figure 2.3 of the updated traffic report dated 2018. In this regard, the commitment should specify that the minimum standard of the upgrade of Calderwood Road (which is required under condition C12(d)(a)) is equivalent to that specified for a collector road adjacent to rural land in Fig 2.3 of the updated traffic and transport report dated 2018. In particular, a minimum 22m road reserve with a 2.5m shared use pathway is required for safety of road users. The approach and departure treatments from Tripoli Way also requires additional lanes and this will determine the reserve configuration in this location.
- o) Commitment 25 This should be expanded as it is difficult to measure at the subdivision stage as it is difficult to measure compliance with this commitment;
- p) Commitment 27 It is unclear whether best practice measures include the adoption of technologies to reduce the demand or need for servicing.
- q) Commitments 29 and 30 The commitments should detail what a "riparian corridor" actually means – it should be provided in accordance with the relevant guidelines produced by NRAR. This includes planting.

Development Control Strategy

Council continues to have some concerns and does not support the proposed modified Development Control Strategy. Council's concerns include:

- a) The inclusion of Town Centre controls and specifications that have not been developed through an agreed Master planning process.
- b) The lack of definitions for zipper lots and smart lots that are referred to within the document.
- c) The New insertion at 1.6.2 Laneways Council is of the opinion that there must be provision for all laneways to have kerb and gutter to allow clear delineation of property ownership, driveway and placement of bins.

Watercycle and Flood Management Strategy

The following are Council's comments on the "Calderwood Urban Development Project Section 75W Application Water Cycle and Flood Management Strategy Updates Post-Exhibition Report Lendlease April 2019"

SCC Initial	 a) A new flood model – as part of this Mod 4, Lendlease has engaged a new flood consultant to review the flood modelling undertaken as part of the previous approvals. This new modelling is based on Council's Flood Study (adopted in 2017). Lendlease's consultant J. Windum Prince has incorporated as-constructed aspects of the Calderwood development into the model. It is evident from the model results that various points in the statement of commitments are now shown to be inconsistent with respect to flood risk and management of that risk. Commitment 41. Specifically, the bridge over the rivulet built as part of stage 1 was intended to be designed such that it would provide flood free access. However, the new modelling indicates that this is not the case (see image below).
	Council believes that Lendlease must address this issue and provide details regarding what remedial works they propose to undertake in the floodplain to ensure that the flood free access can be met and that all commitments in the statement of commitments are being satisfied.
	Furthermore, Council is now examining what notations it should be placing on planning certificates whilst this issue is being resolved. This may include placing a notation on those properties that are now identified as flood prone that under the original Flood Management Strategy were not flood affected.

LLC	The previous modelling indicates that some areas in Stage 1 of CUDP are impacted by floodwater entering the subdivision for the Macquarie Rivulet in the extreme PMF event. This is due to the different input data between the current model and that used as part of the MOD 3 (for Stage 1) assessment. The current SHCC flood model, which is the adopted flood model of SHCC, suggests that there is an extra 323 m ³ /s (14% increase in flows) passing under the Stage 1 bridge during the extreme PMF event in comparison to the flows adopted and approved as part of the Stage 1 court approval.	
	As part of the consultation process with SHCC, J. Wyndham Prince met with SHCC staff on 15 March 2018. It was agreed at this meeting that the court approved developments needed to form the basis of establishing the "new existing" condition flood extent, and any reported impact that may be identified as result of the using the new Macquarie Rivulet flood model would, as it was court approved, be accepted by SHCC. It is confirmed that the bridge still provides flood free access based on the new flood modelling. A detailed discussion on the Stage 1 bridge is provided in Section 9 of the WCFM report	
SCC	Lendlease have stated that they will seek approval for the construction of 620 mm blade wall adjacent to Djindy Bridge to manage flood risk in the PMF, however the potential flood impacts from doing this are unknown as no supporting modelling has been provided to support this mitigation option. What will be the consequences in flooding behaviour and impacts after the construction of blade wall?	
	Furthermore, the flood modelling results prepared by JWPrince still show some of the access roads in CUDP having flood depth 0.2-0.5 m in the 1% AEP event and PMF event as shown in Figure 8.04 and 8.07 respectively. In accordance with the approved concept plan and statement of commitments, the access roads within the CUDP must be made flood immune in the 1% AEP event.	
SCC	b) Flood Impacts – It is evident from the flood maps that there may be significant and far reaching flood impacts in some areas downstream of the development.	
LLC	Flood impacts for CUDP and downstream are no greater than what was indicated in the 2010 approved Concept Plan in regard to the 1% AEP event and compliant with Condition B26.1 of Mod 3 for the Stage 1 approval. As this document sets the development planning framework, thus compliance with these terms is appropriate for the MOD 4 approval. For the PMF event, impacts are less than 0.3 m external to CUDP is acceptable. Figure 8.05 and Figure 8.08 of the WCFM also illustrates this compliance.	

SCC	It is acknowledged that there is negligible increase in flooding depth in the 1% AEP and PMF events outside the CUDP as shown in Figure 8.05 and Figure 8.08. However, there are some lots and roads inside the CUDP where the flooding depth is increased by 300mm or more as shown in Figure 8.05 and Figure 8.08 respectively. These impacts need to be addressed and resolved particularly where the increases in flood levels impact on existing dwellings and other structures.
SCC	c) The Rienco Flood Model – The MOD 4 application proposes to be informed by the new flood modelling (which is based on Council's Adopted Flood Study model). Council is unclear about what this means for the developers within the non-core lands that are currently seeking DA approval for applications that are based on the previous Rienco/Cardno modelling. Are these developers expected to abort all work done using the Rienco model and use only the new JW Prince model that is based on Council adopted flood study? The possible implications of developments currently being assessed should be addressed prior to the determination of the modification to the Concept Plan Approval.
LLC	It is recommended that Council carefully consider the updated flood flow and level information in assessing and determining future DA applications. The final flood model including all updates will be provided to SHCC for further use by SHCC as development in Calderwood continues. It is recommended that all DAs approved and currently under assessment proceed with the
	previous modelling as they are consistent with the concept approval relevant at the time. It is recommended that the revised modelling be utilised for all Das moving forward if MOD 4 is approved.
SCC	No further comment. This item is now addressed.
SCC	 d) The Risk-based Framework for Considering Waterway Health Outcomes in Strategic Land-Use Planning Decisions is referenced in the Water Cycle and Flood Management Strategy and has been recommended by EPA/OEH. The report incorrectly states that: <i>"Neither Shellharbour City nor Wollongong City Councils indicated that this work had</i>
	already been performed for the Lake Illawarra catchment and did not indicate expectations that the proponent would develop or apply such a frameworks to the CUDP".
	Shellharbour and Wollongong Council are working together with OEH to have the Risk based Framework implemented as part of the Draft Lake Illawarra Coastal Management Program (CMP). The Department needs to consider how the Risk Based Framework will be enforced when the Lake Illawarra CMP is approved by the Minister.
LLC	As discussed earlier in relation to the WCC response, the Risk-Based Framework has been considered and the CUDP is compliant with the framework. The CUDP development is located in the "blue area, as shown in Plate 1, which has been identified in the Risk-Based Framework to 'maintain or improve' stormwater controls. The proposed water quality treatment system proposed as part of MOD 4 meets the minimum load reduction targets required to maintain the health of Lake Illawarra. The MOD 4 Water Quality assessment complies with and duly considers, the Risk-Based Framework for Considering Waterway Health Outcomes in Strategic Land-use Planning Decisions and Council's Water Quality objectives as it has been defined at present.
	Extensive consultation was completed as part of the SEARS preparation with SHCC and WCC. At these meetings, there was no mention by either Council of the Risk Based Framework being a control document that needed to be considered nor was the risk-based framework targets provided by either Council in order to incorporate these amended targets into these assessments.
SCC	JW Prince has updated the statement in Section 7.5 (Page 32 and 33 of the report) to address this issue. This item is now addressed. However, it is recommended that the department consider conditioning the concept plan be consistent with the Risk Based Framework approach to managing water quality within the CUDP.
SCC	 e) It's unclear whether Council can reasonably manage the large increase in Stormwater treatment devices that will be handed over to Council as a result of the MOD4. (Proposed total of 27 wetlands which is an increase of 15 wetlands compared to the existing approval). It is likely to have a large impact on Council ability to be Fit For the Future. Comments

I measures should be investigated, nowever, the report provides no suggested solu	ment
measures should be investigated, however, the report provides no suggested solutions other than Council to manage.	
LLC Part A of the Determination for the 2010 Concept Plan Approval states that the developed shall be in accordance with the "Preferred Project Report" by JBA ¹ Appendix L of the JBA reprint illustrates the approved Water Cycle Management Plan. This plan includes 31 water be across CUDP to deliver the water quality objective for the development. Refer to Plate 2 be	eport odies
¹ Preferred Project Report – Calderwood Urban Development Project, JBA Urban Planning, August 2010	
LLC USE The set of th	ctor
² Calderwood Concept Plan Environmental Assessment Report, DoP Director General, November 2010	



LLC	As part of the proposed increase in density, Town Centre East, a portion of main Town Centre and the Education Precinct were initially modelled as 60% imperviousness as part of the Macquarie Rivulet assessment and increased to 85%-90% as part of the MOD 4 assessments. For other residential areas impacted by the proposed density uplift, these were initially modelled with a 60% impervious and this was increased to 75% (15% increase) for this assessment. Details of the assumed % impervious were detailed in Table 7.3 of the Section 75W Watercycle and Flood Management Strategy Report, J. Wyndham Prince, 2019 and have been reproduced for clarity below.		
	Source: Table 7.3 – Modelling Input Parameters (JWP, 2018)	
	Area Type	Impervious Area %	
	Proposed Town Centre North	90%	
	Proposed Town Centre East	85%	
	Low Density Residential (R1)	50%	
	Low Density Residential (R2)	60%	
	Low Density Residential with proposed density uplift (R2)	75%	
	Education Precinct Non core-invividual	50%	
	Non core-Other Developer	63%	
	Commercial/industrial	95%	
	Road Reserve	90%	
	Active Open Space	50%	
	Passive Open Space	10%	
	Forested Lands	0%	
SCC	 The R1 and R2 still have impervious factor 50% and 60% resp for R1 and R2 has not been changed as per Council's submiss be unresolved. g) Although Council has licenced its adopted Macquarie Riv for the purpose of undertaking this exercise, Council has he been any quality assurance checks as to the updates may the model to support this application. It is suggested that performed by a peer reviewer to ensure that any change accordance with industry standards and the TUFLOW use Section 8.2 of the WCFM strategy update report details the charge SHCC model. All modelling files can and will be available for Section 8.2 of the model to the performed by a peer reviewer for and will be available for Section 8.2 of the WCFM strategy update report details the charge strategy in the model. 	ion is considered by C ulet Flood Model to J ad no assurance that ade and any changes t a quality assurance ges made to the mod r manual and guidelin anges that have been	W Prince there has made to check be lel are in nes. made to
SCC	available for any independent peer review if required. Cardno has peer reviewed the "Water cycle & flood management strategy" prepared by JWPrince. From the peer review letter dated 16/05/2019, Cardno appear to be comfortable with the flood modelling undertaken by JW Prince. Moreover, Cardno confirms that the impact of flooding on the development with the proposed modification is consistent with the concept plan as the proposed lots will be constructed above the flood planning level and access will be available up to the PMF. Cardno also confirms that the impact of the development on flooding upstream and downstream of the development is also consistent with the conditions of approval in the concept plan. Regarding the water quality treatment proposed, Cardno considers that the proposed concept is actually an improvement on the water quality outcome of the concept plan as the design has now accounted for higher treatment targets and has also considered the Risk Based Framework for considering waterway health outcomes which was published after the concept approval was granted. Council is now satisfied that this item has been addressed.		
SCC	 h) The flood modelling submitted with the MOD4 does Calderwood Road in terms of alignment (Horizontal and other documentation within the MOD4 indicates that Calc upgraded to accommodate the new development intensity 	vertical) and form. I lerwood road is requi	However, red to be

 may need minor widening in sections in order to support the new development intensity. Figure 8.04 of the Post Exhibition WCFM report depicts the flood impacts upstream of Calderwood Road which satisfied Council's concern. SCC The extent of upgrade required to Calderwood Road has not been agreed at this point and more detail is provided on Calderwood road elsewhere within Council submission. Council contends that if extensive upgrades are required to Calderwood road as the modelling would suggest, (e.g. upgrade to two lanes in each direction) than this is expected to potentially have significant and far reaching impacts to flood behaviour which will need to be managed. SCC i) There is little detail in the report about how flood risk above the 1% AEP will be managed and how risk to life is to be mitigated. In this regard, the question arises, will dwellings be subject to unacceptable flood hazard in extreme events? LLC As indicated in the flood mapping, parts of the precinct are inundated by mainstream flows during the PMF event. Due to the short duration of PMF event, a flood evacuation strategy that provides residents with enough time to mobilise and evacuate the development is not available as it is not necessary to ensure the safety of the future population residing within the development. Figure 8.10 shows the hazards within the proposed development during a PMF event. This figure demonstrates that the majority of development areas inundated by PMF floodwaters are considered safe for buildings as they do not exceed category H4. The MOD 4 assessment is consistent with the approved concept plan where the primary flood evacuation strategy is to "shelter in place" as this option presents the Lowest Risk to Life. The local
more detail is provided on Calderwood road elsewhere within Council submission. Council contends that if extensive upgrades are required to Calderwood road as the modelling would suggest, (e.g. upgrade to two lanes in each direction) than this is expected to potentially have significant and far reaching impacts to flood behaviour which will need to be managed. SCC i) There is little detail in the report about how flood risk above the 1% AEP will be managed and how risk to life is to be mitigated. In this regard, the question arises, will dwellings be subject to unacceptable flood hazard in extreme events and, will they be structurally sound enough to withstand forces of floodwater in extreme events? LLC As indicated in the flood mapping, parts of the precinct are inundated by mainstream flows during the PMF event. Due to the short duration of PMF event, a flood evacuation strategy that provides residents with enough time to mobilise and evacuate the development is not available as it is not necessary to ensure the safety of the future population residing within the development. Figure 8.10 shows the hazards within the proposed development during a PMF event. This figure demonstrates that the majority of development areas inundated by PMF floodwaters are considered safe for buildings as they do not exceed category H4. The MOD 4 assessment is consistent with the approved concept plan where the primary flood evacuation strategy is to "shelter in place" as this option presents the Lowest Risk to Life. The local
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PMF assessment also demonstrates that Risk to Life can and will be managed appropriately within CUDP. Minimum 0.5m freeboard will be provided to flood affected properties in the 1% AEP event to maintain the structural integrity of the dwellings and to withstand forces of floodwater in the design event.
SCC It remains unclear how safe refuge will be maintained and how the structural soundness of building will be maintained for dwellings above the flood planning level that are affected by the PMF in order to manage risk to life?
SCC j) There appears to be a real opportunity to incorporate Stormwater Harvesting and reuse within the development area, as there are a number of nearby potential users of harvested stormwater for irrigation (e.g. Sports fields, schools etc.) This would result in a significant reduction in nutrient load and have a positive impact on the receiving waters including Lake Illawarra.
LLC The inclusion of stormwater harvesting and reuse schemes will be investigated as the detailed design of each stage of CUDP is completed. The proposed water quality treatment train assessed in MOD 4 meets the minimum load reduction targets required to 'maintain' stormwater controls without stormwater harvesting being considered.
It noted that, as part of the requirements for BASIX, each dwelling will be required to have a rainwater tank plumbed into toilets and/or laundry and outside taps. This reduces the volume of runoff and dependence on potable water. This system also results in no maintenance burden on Council.
SCC Noted. This item is now addressed.

Conclusions:

Council has reviewed the "Water Cycle and Flood Management Strategy Updates Post-Exhibition Report" prepared by JW Prince dated April 2019 and "Peer Review – Water Cycle & Flood Management Strategy" prepared by Cardno dated 16 May 2019.

In summary, Council is of the opinion that the following matters are outstanding and should be addressed and resolved prior to any approval of the Modification Application.

A) Flood Risk

- i. Impact on flood behaviour is not resolved, resulting from the construction of blade wall near to Djindi Bridge
- ii. Flooding impact within the CUDP boundary due to the proposed development
- iii. Flooding hazard on access roads in the 1% AEP event and PMF event
- iv. Traffic access on key roads in the PMF event.
- v. Structural Soundness of buildings where the proposed lots are affected in the PMF event.

B) <u>Water Sensitive Urban Design</u>

- i. Inconsistency in the location of storm water treatment devices with the location proposed in other Water Cycle Management Study reports prepared by Cardno and submitted with current Development Applications.
- ii. Percent imperviousness in residential areas are considered be too low and artificially reduce stormwater treatment required.

C) <u>Need for flood detention basins</u>

i. Inconsistency exists in the proposed detention basins – This matter has come to light following assessment of non-core DA's. The report prepared by JWPrince stated that "Detention is not needed to reduce impacts downstream of CUDP as peak discharge flows have not significantly increased as a result of the development." However, the detention basins are proposed for some of the Stages of CUDP. It needs to be resolved whether the information from other consultants related to detention basins has been taken into consideration in this report.

Traffic and Transport

Reference is made to the Addendum Response to Submissions (Addendum RTS) package submitted to the Department of Planning Industry and Environment (DPIE) from contractors Ethos Urban and Cardno acting on behalf of Lend Lease Communities (LLC).

Council's comments in its second submission are still considered valid. LLC has not demonstrated adequately that the upgrade to Calderwood Road to 4 lanes that is two lanes each way, as detailed in the original MOD4 submission is no longer required and therefore LLC should be required to provide this upgrade as originally proposed. The resulting Level of Service if one lane each way is provided is low and not desirable. Should this not occur, Council is of the opinion that LLC must be required to provide an upgraded road as detailed in their proposed Development Control Strategy of street type B3, being a *Major Collector adjacent Rural Lands*, with adequate road reserve width and provision of a Shared Use Path (2.5m).

The following comments specifically respond to comments relating to Transport and Accessibility, in particular that of Calderwood Road. This response is broken up to comments from relevant documents.

Addendum RTS Covering Letter 5 May 2020

Addendum RTS	Council (SCC) Response
Section 4.1 of the Traffic and Transport Report (T&TR) prepared by Cardno (Appendix I of the RTS) outlines the traffic modelling methodology used to assess the impacts of the proposed development on the local road network. The assessment is based on updated infrastructure, residential and employment land use forecasts using the APRB/WOSLH model to forecast future traffic volumes on the road network. It is an assessment based on strategic (WOLSH) and operational (Aimsun) traffic models with a dynamic traffic assignment method. The methodology is consistent with the approved 2010 TMAP which also used the WOLSH TRACKS model. As agreed with RMS, Cardno adopted the same WOLSH model and Aimsun model versions as those developed by RMS as part of the Albion Park Rail Bypass project, which correspond to the most up to date and accurate traffic models available for the region. It is noted that neither RMS nor Transport for NSW raised any issue with the model used for the	Council (SCC) Response The issues raised by SCC with regards to the original modelling were not the modelling itself, but the assumptions used to input into the model that were under estimated. The original comments from SCC's previous comment have not been addressed and still remain valid. Further comment is provided in response to Attachment G below.
traffic assessment. It is no longer proposed to exclude secondary dwellings from the 6,000 dwelling total. Section 4.3 of the Traffic and Transport Report prepared by Cardno contains an assessment of the additional traffic volume on the road network, generated by the additional 1,200 dwellings proposed. The assessment demonstrates that Calderwood Road can accommodate the additional traffic generated if it remains a two lane road and that widening the road to four lanes is not required. Further correspondence on this issue is provided at Attachment G.	The assessment utilises incorrect input and therefore does not adequately demonstrate that Calderwood Road can accommodate the additional traffic generated. The Level of Service will be low for a two lane road and is not desirable. Further comment is provided in response to Attachment G below.

Attachment D - Addendum RtS Submission Calderwood MOD 4_28 April 2020-1

Addendum RTS	SCC Response
The term principal dwelling has now been removed and the 6,000 dwellings now includes secondary dwellings.	The issues raised by SCC with regards to the original modelling were not the modelling itself, but the assumptions used to input into the model.
The traffic modelling prepared by Cardno has considered all of the Calderwood development and	The Level of Service will be low for a two lane road and is not desirable.
surrounding land release areas in West Dapto, Tallwarra and Tullimbar etc. Refer to Section 1.4.3 of the traffic report which outlines the numbers relied upon for the assessment. Refer to Section 2 of the	The original comments from SCC's previous comment have not been addressed and still remain valid.
traffic report for all of the assumptions made for the traffic modelling of the project.	Further comment is provided in response to Attachment G below.

Attachment G - MOD 4 Calderwood Road Commentary

Addendum RTS	SCC Response
The speed of Calderwood Road (assumed to be	Attachment 2 of SCC's previous response
60km/h under future conditions) combined with	demonstrated the inputs into the model were
the peak hour flow of 832 vehicles per hour	incorrect. The proponent has still not addressed
	the errors in the inputs which may result in an

requite in LoS C (consisting of relatively free flow	increased neek. The providue reapones also
results in LoS C (consisting of relatively free-flow conditions).	increased peak. The previous response also outlined that the volatility in the assumptions
	could easily result in a LoS D being achieved for
	Calderwood Road
It is noted that future year modelling indicates that other 2-lane road corridors in the region such as	Reference is made to Princes Highway as a 2- lane road. The Princes Highway is a 4-lane road
Tongarra Road or Princes Highway are	(2 lanes 2 way) in all areas of the Shellharbour
anticipated to accommodate peak hour flows of	Local Government Area.
the same magnitude as Calderwood Road by 2036. It is understood that no road widening is	The Level of Service is already low and not
proposed for these road corridors by that year	desirable for the two lane Tongarra Road
horizon.	(Illawarra Highway) and this has been identified
The forecasted peak hour flows for Calderwood	through investigations and reports by Transport for NSW. Recent modelling has identified very
Road in 2036 are of the same magnitude of the	low service levels on the Illawarra Highway and
flows forecasted for other 2 lane roads in the	Transport for NSW has required recent
region which have no known commitment to a widening to 4 lanes.	developments to design for additional lanes either side of intersections on Tongarra Road
	(Illawarra Highway).
	It is assumed Cardno is referring to the Illawarra Highway. No widening is proposed for these
	roads in the 2036 scenario as bypass projects are
	currently being or planned to be built to relieve
	traffic growth on those roads, namely the Albion Park Rail Bypass, and Tripoli Way Extension
	(Albion Park Bypass). Illawarra Highway also has
	a higher speed which the graph demonstrates improves the Level of Service for this road. This
	statement therefore has no bearing.
Widening Calderwood Road to a 4 lane cross	The upgrade of Calderwood Road is a Condition
section would consist of a significant overprovision for a corridor which primarily	of the Concept Approval and Council is of the opinion that it is appropriate to modify the
services the CUDP land and no other	condition and relevant commitments in the
development (i.e. Tullimbar and West Dapto development areas rely on road corridors	Statements of Commitments to specify a standard of design for a collector road with
other than Calderwood Road to travel to/from	appropriate width to allow travel lanes, shoulders,
those sites).	and verges are accommodated within the road
	reservation and to allow for safe pedestrian access and clear zones in accordance with
	AUSTROADS, as well as a timeframe in order to
	provide clear direction and expectation to both
	the proponent and Council. A four lane road would ensure the capacity and Level of Service
	meets a desirable level.
	The environment to Trineli May intersection
	The approaches to Tripoli Way intersection requires 4 lanes.
	The Level of Service is low with 2 lanes (one each
	way) within a road reservation that meets a
	collector road standard.
The modelling is based on the conservative assumption that by 2036 all development areas	As stated above, the upgrade of Calderwood Road is a Condition of the Concept Approval and
in the region (including Calderwood) are	Council is of the opinion that it is appropriate to
completed. It is possible that some development	modify the condition and relevant commitments in
areas may not be completed in this timeframe (or even at all in some instances).	the Statements of Commitments to specify a standard of design as well as a timeframe in order
	to provide clear direction and expectation to both
	the proponent and Council.

The staging plan shown in the Calderwood TMAP assumed 1,500 occupied dwellings by 2020 (Table 3.1 in the TMAP). However, Lendlease's most recent count of occupied dwellings in March 2020 showed only 670 occupied dwellings. This further indicates that a delay in the delivery of dwellings is occurring when compared to future year land use assumptions and that the corresponding traffic forecasts are likely to be conservative. Generally	 In consideration of the above points it is Council's opinion that; Cardno has not directly addressed the concerns contained within SCC's second response to submissions in relation to the input data and assumptions The commentary simply repeats sections of the updated Traffic and Transport report submitted with the RTS The commentary provides extra points above which are demonstrated to be erroneous the document does not provide clarity requested as to why LLC are no longer including the upgrade of Calderwood Road to 4 lanes as outlined in the original MOD4 submission. Any reduction in travel lanes will result in a lower level of service and further support the need to accommodate active transport including safe pedestrian access in the design.
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Updated Traffic and Transport Report

In addition to the previous response, Council; has now further reviewed and found other items that further support the inclusion of the upgrade of Calderwood Road to up to 4 lanes. Council has alternatively demonstrated that the currently proposed upgrade of Calderwood Road is inadequate with regards to road reserve width and provision of supporting infrastructure for road safety.

RTS	SCC Response
The TMAP detailed the post development mode share target was established to be a 10% shift away from car based transport following the implementation of a range of sustainability measures to increase non-car mode share	SCC requires that a Shared User Path be provided with the Calderwood Road upgrade. In accordance with the Street Typologies outlined in Table 4.1. The design of the new road formation of Calderwood Road must take into account the need for safe pedestrian and bike access in addition to the final width necessary for two way movements and four lanes closer to Tripoli Way, with the reserve configuration at nil cost to Council.
Figure 2-3	To be noted Calderwood Road along the full extent is identified as a Collector Road, not just the section of road contained within the CUDP boundary. This highlights the additional road reserve width required for the design standards and it is not to be constrained by existing private property boundaries.

presume this typology is applied to the full extent
of Calderwood Road adjacent to rural land (even
in the event of not upgrading Calderwood road to
4 lanes), especially given the rationale within the
original TMAP and concept approval noted in the
comment above, as well as the previous rationale
stated above for promoting <i>alternative transport</i>
modes as the reasoning for a poorer LOS on this
road.

Open Space Provision

The covering letter submitted by Ethos Urban dated 5 May 2020 responds to some key issues raised in Council's previous submission including open space provision.

It states that the majority of the additional residential density remains around the Town Centre and discusses the additional open space provided with a focus on meeting numerical standards not the quality or suitability of the proposed open space provided.

The applicant has not addressed Council's concerns regarding the lack of proximity of the additional residential density to the increase in open space proposed. In this regard, the extension of the existing Local Parks L8 and L11 and D4 as well as the proposed enlargement of District D5 which are all remote from the areas in which additional density and their location limits their ability to serve the additional demand to be created. As such, they are not relevant to the consideration of the increased density.

Other unresolved matters regarding the provision of open space include:

- 1. Although the additional Open space (Active and Passive) calculated for additional 1200 dwellings is numerically acceptable, the proponent has not adequately justified how the new locations of the proposed open spaces link relate to and will service the areas where the increased density is proposed.
- 2. Proponent has not demonstrated the suitability of the proposed open spaces and how they will interact with the existing open spaces and be useable areas.
- 3. The proponent provides evidence of 400m walking distance to town centre areas but fails to address the question regarding how increasing the local parks in the outer areas of the development area will accommodate the town centre densities.
- 4. There continues to be inconsistencies between documents e.g. The Calderwood Valley Infrastructure Upgrade Plan (mod 4 PPR) is not consistent with 1.2.3 Public Open Space figure 14 on page 15 of the Urban Design Report.
- 5. The proposed open space provision and its delivery has not been discussed with Council by the proponent. Currently no letter of offer to enter into any new VPA and no method of ensuring provision. The current VPA between Lendlease and Shellharbour Council does not address the provision of open space or community facilities for the additional population proposed and Council remains concerned about some of the additional open space land proposed.

In conclusion, open space is critical to the development of liveable communities. The provision of sufficiently sized and appropriately located open space to cater for the needs of the development is critical at the initial development stage as, once the land is subdivided and developed, it is difficult and expensive to retrofit additional open space. It is not considered

sufficient to only meet numerical standards. The land must be appropriately located and fit for purpose. The proponent has not demonstrated this.

Voluntary Planning Agreement

Council is yet to receive a Letter of Offer to enter into a revised VPA. Council has received a notice of intention to enter into negotiations (dated 4 May 2020) but this notice clearly states that it is not a formal letter of offer. This letter advises that Lendlease will propose to enter into a revised VPA "in due course". This provides Council with no certainty of when this will occur or what form it will take. As such the information provided by Lendlease is not sufficient to ensure that the infrastructure needs generated by the additional dwellings will be adequately addressed through a revised VPA.

Council has the following concerns regarding the information provided in the letter from Lendlease:

- The VPA will only apply to that land within the CUDP that is to be developed by Lendlease.
- The increased dwelling yield is dependent the provision of open space that is outside of the area to be developed by Lendlease. How the provision of this open space can be assured will need to be addressed.
- In addition to the above issue Council has the following concerns regarding the additional areas of open space proposed:
 - The additional areas of open space proposed around the Town Centre precinct are small and provide limited additional recreational opportunity for the additional residents
 - The focus is on numerical rates of provision rather than quality
 - Significant areas of land that have already been dedicated to Council for other uses are now sought to be used to meet the recreation requirements of the additional population. This has been done with no consultation with Council
 - Lendlease have not demonstrated that the land they are seeking to provide is fit for purpose
- No information has been provided as to any proposed changes to the monetary contributions or key administrative components of the current VPA which is critical to the consideration of a revised VPA.
- The upgrade of the Escarpment Drive/Illawarra Highway to a signalised intersection has not been included in the list of items to be incorporated into a revised VPA (it is noted that this is has also not been included in the proposed changes to Condition C12).

Public Benefits Letter (dated 28 May 2020)

Council has also reviewed the Public Benefits Letter (dated 28 May 2020) submitted to the Department by the proponent and has significant concerns with respect to the proposal set out in the Public Benefits Letter. These are set out below and Council trusts that the Department will take them into account prior to determining the MOD 4 application.

As previously stated Council has not yet received a Letter of Offer from Lendlease to enter into a new VPA or a variation to the existing VPA with respect to the CUDP in order to address the additional development contributions to be provided in the event that MOD 4 is approved. Council has however received a "MOD 4 proposed future offer Letter to enter into a Voluntary Planning Agreement" (dated 4 May 2020) which sets out contributions that Lendlease may include in any Letter of Offer it does provide to Council. That letter is clear that it is not a Letter of Offer from Lendlease for any new VPA or variation to the existing VPA.

The development contributions set out in the letter to Council are those set out in the "Public Benefits Letter" provided to the Department by Lendlease and dated 28 May 2020.

Currently there is an existing VPA in place between Council and Lendlease (Existing VPA) which applies to all of the land within the CUDP, including the land within the CUDP which is not owned or otherwise controlled by Lendlease.

The Existing VPA provides a comprehensive regime for the orderly delivery of development contributions across the CUDP, including the provision of district wide facilities.

In that regard the Existing VPA requires the provision of specific district facilities at times determined by the number of Dwellings erected within the CUDP with all of those facilities required to be provided under the Existing VPA prior to the finalisation of the development presently permitted under the Concept Plan Approval.

A significant portion of the CUDP has already been developed by Lendlease, with a number of development consents for further development having been issued by Council, as well as further development applications still under consideration by Council.

It is not clear from the Public Benefits Letter whether Lend Lease propose to enter into a New VPA only dealing with the increased development permitted by MOD-4, or if they propose to vary the Existing VPA. In that regard, either option raises issues for Council that would need to be worked through with Lend Lease before any New VPA (in whatever form) could be finalised.

The Public Benefits Letter states "In due course and prior to the issue of a subdivision certificate for the 4,801st lot, Lendlease proposes to enter into an amended or supplementary VPA". In Council's view, this proposed timing creates significant issues in the context of the orderly delivery of development contributions within the CUDP.

As referred to above, the Existing VPA requires development contributions to be delivered by times determined by the number of Dwellings erected within the CUDP. Accordingly, the district facilities required to be delivered under the Existing VPA are required to be completed well before the subdivision certificate will be issued for the 4,800th lot within the CUDP. The reference to lots rather than dwellings is also not compatible with the wording of the Concept Approval as it refers to dwelling numbers not the number of lots.

Further to that, the planning and consent process for the delivery of those district facilities is required to be undertaken well in advance of the time that they are required to be delivered under the Existing VPA.

The proposal of Lendlease with respect to the New VPA is that some of those district facilities be expanded from those required under the Existing VPA. It is therefore likely that the position suggested by Lendlease that a requirement that the New VPA be entered into "prior to the issue of a subdivision certificate for the 4,801st lot" will result in the New VPA requiring the delivery of district facilities that have already been planned, approved and possibly even delivered under the Existing VPA.

Further, Council does not agree with the proposed additional contributions required to be provided by Lendlease as set out in the Public Benefits Letter and Council's position is that the development contributions required for the CUDP should be considered fully and whollisticly having regard to the anticipated Dwelling yield of 6,000 if MOD 4 is approved.

If the suggested approach of Lendlease is taken, then there is a significant risk that the development will proceed in a manner which prejudices Council's ability to negotiate for appropriate development contributions under a New VPA which will properly address the increased demand within the CUDP as a result of MOD 4.

The Existing VPA was agreed to by Council based on the current zonings within the CUDP and the terms of the existing Concept Plan Approval. In particular, the Existing VPA was agreed on the basis of the presently anticipated development yield within the Calderwood Town Centre, and therefore the public benefits that would adequately service that Town Centre. If MOD 4 is approved the development of the Town Centre will be permitted at a much higher density than presently permitted, meaning that the demand for public benefits generated by the Town Centre in particular is much higher. The manner in which the development of the CUDP is undertaken is entirely in the control of the relevant development, subject to development consent being obtained, meaning that the specific additional development permitted as a result of MOD 4 will not necessarily be undertaken after 4,800 dwellings are created.

This creates the risk that the Town Centre will be developed prior to the finalisation of any New VPA, denying Council the ability to include in any New VPA the delivery of public benefits to appropriately address the specific needs of the increased development permitted by MOD 4.

For the reasons set out above, Council does not agree with the suggestion of Lendlease that the New VPA be required to be entered into no later than the issue of the subdivision certificate for the 4,801st lot within the CUDP. Rather, it is Council's view that any New VPA needs to be negotiated and entered into before any MOD 4 approval comes into effect.

Subsequently, Council recommends the following:

- 1. That the determination of MOD 4 not be made unless and until a binding offer has been made by Lendlease to enter into a New VPA (being either a new VPA in addition to the Existing VPA or a variation to the Existing VPA), on terms that are acceptable to Council.
- 2. That MOD 4 be determined, but include a condition that the MOD 4 approval not become operative unless and until a New VPA (being either a new VPA in addition to the Existing VPA or a variation to the Existing VPA), has been entered into with Council with respect to MOD 4.

In summary, it is also not possible to determine whether the proposed changes to the VPA as outlined in the Statement of Commitments are satisfactory to Council. The proponent has not sought to explain the changes they propose to Council and as such Council cannot be confident that the infrastructure requirements of the development, its impact on the broader development in the general area and the administrative processes are satisfactorily addressed.