Name:	Jenna Conran
Organisation:	Wollongong City Council
Title of document:	Access for emergency vehicles and emergency service personnel

Page or section no.	Section title / subject of section	Specific comments or suggestions
7.6	Gradients and Ramps	The recommended grade is below Council standards as well as AUSTROADS (national guidelines), as well as the previous rural fire service guidelines. This requirement cannot be achieved everywhere for new developments, noting the topography of the Wollongong LGA. The recommended 12.5% gradient can be achieved in most areas, but not all areas in the LGA.
FRNSW comment: FRNSW has amended the maximum gradient and ramp requirement to 1:6 (i.e. 16.6%). This should satisfy most Council standards and AUSTROADS (national guidelines).		

Name:	David Kelly
Organisation:	Sutherland Shire Council
Title of document:	Access for emergency vehicles and emergency service personnel

Page or section no.	Section title / subject of section	Specific comments or suggestions
7.6	Gradients and Ramps	Due to the topography of Sutherland Shire we have experienced recently approved developments exceeding these gradients, and this would be an ongoing problem for compliance, and approval of development in certain locations identified as permissible in our LEP and DCP The gradients are the biggest issue. In the event a ramp cannot exceed 12.5% it would restrict the type of development / subdivision on steeper sites that would need to be considered during development assessment. if someone wanted to subdivide a block and it couldn't achieve 12.5% as it would be too steep, it would deem a refusal which would need to be clearly identified in our DCP <u>Alignment To AS2890.2.2018</u> Being in non-compliance with AS2890.2.2018 in relation to the head height 4.6m AS is 4.5m and maximum grade being 12.5% not the 15.4% as in AS. This has the potential to cause issues for designers and difficulties in court we would recommend to amend the fire spec to match AS2890.2. • Head height 4.5m • Gradient 15.4%
FRNSW comment: FRNSW has amended the maximum gradient and ramp requirement to 1:6 (i.e. 16.6%). This should satisfy most LEPs and DCPs that nominate AS 2890.2:2018 where the maximum slope is to be 1:6.5 (i.e. 15.4%). As this is within our maximum limit, compliance with AS 2890.2:2018 means the grade be accessible by our fire appliances. The 'head height' has been amended to 4.5 m to align with AS 2890.2:2018 and to remove any potential conflict for development. The maximum fire appliance height is 4.3 m thus provides 20 cm clearance for body movement.		

Name:	James Martin
Organisation:	Hornsby Shire Council
Title of document:	Access for Emergency Vehicles and Emergency Service Personnel

Page or section no.	Section title / subject of section	Specific comments or suggestions
6.3.3	Coverage by types of fire appliance	The clause states that a 2-9 building having an effective height greater than 9m is to have access for 'specialist' fire appliance. Conversation with NSW F&R personnel states that the intent of this clause is to capture 4 x storey buildings and above. Please be aware that 2 x storey 2-9 buildings can be up to 9m in height. Therefore, this definition could be better defined or reworded including a note that creates awareness of the intent to capture high rise buildings not 2 – 3 storey buildings and that it is at the discretion of the governing authority.

FRNSW comment:
As implied by the note to clause 6.3.3, the 9 m effective height is the limiting vertical height reach of an FRNSW portable fire extension ladder that can provide emergency escape during fire brigade intervention. The only means of alternative egress above this height is via an aerial appliance or through a second required fire-isolated stairway (e.g. buildings with an effective height 25 m or above). This is acknowledged in the NCC 2019 Guide to Volume One, where under D1.2(b)(1) the guide recognises the effective operating height for fire brigade ladders and other firefighting and rescue equipment to provide an alternative emergency escape. The 'fire brigade ladders' can only provide this if it can be suitably positioned with necessary access to the building (i.e. performance requirement CP9). Section 10.4 has been revised to clarify this point.

However, the clause has been reworded to better define the purpose of this requirement.

Name:	Anthony Wynen / Geoff Flemming
Organisation:	City of Canada Bay Council
Title of document:	Access for Emergency Vehicles and Emergency Service Personnel

Page or section no.	Section title / subject of section	Specific comments or suggestions
P4, S3	Application	Guideline states: 'This guideline is intended to be used by…urban planners….when planning, assessing or determining any application pertaining to any applicable land or premises.' Council's understanding of this guideline would lead us to believe that it is not a document that would necessarily apply to individual buildings under a development application only, but more relevantly to broader planning proposals involving the rezoning of land and development of broader plans for roads parks and infrastructure. If accessways/hardstand/circulation spaces are required to meet this guideline then consideration and implementation of the guide must be at the earliest phase of a development proposal so that any anticipated increase in hard surfaces to accommodate the guideline can be offset with reductions in soft landscaping or corresponding decrease in building footprints (which may then have further impacts upon building heights to meet density expectations). There may be no other way to achieve this other than incorporating the requirements into a SEPP that would broadly cover any rezoning's/DA's which sit under relevant criteria. i.e. it is not up to a planner to assess and condition but a designer to account for and certify a development proposal as meeting the Access guidelines prior to lodging the proposal. Other considerations include: Who is expected to review applications against the guideline? Is Council required to refer Planning Proposals and Development Applications to Fire Safety Branch for comment? To capture Planning Proposals, the Department of Planning should be required to condition referral to Fire Safety Branch at Planning Proposal Gateway approval stage. Should Council require the applicant to engage a suitably qualified professional to prepare a report that will be submitted with a Planning Proposal or Development Application?

Page or section no.	Section title / subject of section	Specific comments or suggestions
		How will Council identify which types of applications should be referred? Greater detail needs to be provided to outline which types of applications are to be referred for comment.
FRNSW comment: As stated in the application section, the guideline has been developed in the public interest with the intent of consideration by the consent authority when determining a matter. The guideline is not mandatory, but FRNSW would be concerned about development that does not duly consider access and emergency response being impeded. If the consent authority wishes to seek guidance from FRNSW they can request case specific consultation.		
P4, S3	Application. Note.	Guideline states: 'Note: The relevant consent authority can impose conditions on development or issue orders when provision for emergency access is inadequate.' We do not believe either approach will deal with the issue. The guideline is proposing consideration of matters that sit outside Councils current statutory and non-statutory obligations. Even the NCC whilst including performance requirements only has minimal DTS provisions covering matters raised in the guideline i.e. C2.3. The only way forward is to legislate to include broad reform of the DA assessment process to include the guide or at least set the design parameters such is currently done under SEPP 65 or even the Basix style legislation. Alternatively reform the NCC to broaden the definition of a "Large Isolated Building" to include high rise. Does Fire Safety Branch have standard conditions that can be used?
FRNSW comment: No, as any condition would be based upon the application before the determining authority. Clause C2.3 is a fire compartment size concession, and not a DtS prescriptive requirement specific to emergency vehicle access.		
P9, S7	Vehicle access requirements	Is access, particularly vehicular access, required to all sides of a building? Most of our current public road access complies but where new development and subdivision occurs little regard is given to access by fire appliances/personnel over private/public open space in and around buildings.
FRNSW comment: No, access is not required to all sides of a building. However, for new development of Class 2-9 buildings, performance requirement CP9 of the NCC must be satisfied.		

Page or section no.	Section title / subject of section	Specific comments or suggestions
P21, S10	Considerations for development	Care must be taken to ensure that the guidelines assist in improving building design for better fire access and not for dictating building design. We agree with clause 10.3. We have a number of large sites in Rhodes and elsewhere that contain multiple high-rise buildings sitting over one (1) united basement carpark serving all buildings. Central to those developments are parks serving the occupants and community sitting as “podiums” over the carparks. It is doubtful whether FRNSW vehicles could gain access, could rely on the “roof” for support or even have ready access to hydrants at these locations. Any attempt to deal with issue again must be done with legislative support and at the earliest of the design stages.
FRNSW comment: Noted. The section on buildings under 25 m effective height has been revised and includes a new drawing reinforcing the implied intent and commentary from the NCC guide that relates to fire brigade ladders providing means of emergency escape.		
P21, S10.2	Large isolated building	Consideration could be given to altering the traditional definition of a large isolated building in the NCC to provide a broader definition of buildings that require full perimeter access.
FRNSW comment: Clause C2.3 is actually a concession for increased fire compartment size that requires either 18 m open space with perimeter access **or** sprinklers with perimeter access. It primarily addresses fire spread for the large isolated building, not specifically vehicle access. There is no reason to broaden the definition of large isolated building.		

General comments or suggestions
We broadly acknowledge and accept much of what the guideline is trying to achieve. Some of the matters that are specific to a building such as signage on doors etc. could be included in the NCC. There are however many areas covering broader access and manoeuvring issues that need greater legislative support if they are to be efficiently designed into a new development at an early stage. NCC matters should be discussed with the Australian Building Codes Board and broad design/planning issues should be discussed with the Department of Planning.
FRNSW comment: Consent authorities already have the legislative power to determine and impose conditions on any application for development consent and/or development application. The guideline addresses the complete absence of DtS provisions for fire brigade vehicle access as required by performance requirement CP9.

Name:	Firas Shawash
Organisation:	i-Fire Engineers
Title of document:	Access for Emergency Vehicles and Emergency Service Personnel

Page or section no.	Section title / subject of section	Specific comments or suggestions
3	Contents	The table is missing the headline of Appendix A
FRNSW comment: Amended.		
6	Definition of stabilisers	It is recommended to use the following two terms: stabilisers (outriggers) as they are the common terms used in the crane's industry
FRNSW comment: Amended.		
9	Table 2, the first heading “No. of hydrants”	The heading should be: “No. of fire hydrant outlets required to discharge simultaneously”
FRNSW comment: Amended.		
9	Table 2, the second column	It is recommended to express the flow rate in L/s, similar to AS 2419.1. L/min is normally used for the sprinkler system
FRNSW comment: Amended.		
13	Clause 7.4.2, Figure 9.	The figure illustrates that the kerb in the centre of a carriageway should have a maximum width of 500 mm. This is not stated in Clause 7.4.2.
FRNSW comment: Amended.		
16	Figure 13	The width of the hardstand for the general fire appliance should be 4.5 m to be consistent with the minimum required carriage width in Figure 3.
FRNSW comment: Disagree. A designated hardstand which is required for pumping and/or aerial operations is to be provided with additional working space around the fire appliance to allow safe operations. The 6 m width provides 1.75 m of working space along the side of the fire appliance. A 4.5 m carriageway only provides 1 m of working space, or up to 1.3 m of working space when obstructions are 300 mm back from the kerb face (clause 7.4.1).		

Page or section no.	Section title / subject of section	Specific comments or suggestions
17	Clause 8.2.1	The hardstand shall be located within 20m of the access door to any **external** fire pumproom. Please add the word external.
FRNSW comment: Amended.		
17	Clause 8.2.1	FRNSW previously indicated in one of their position statements, that they would support hydrants design in accordance with AS 2419.1-2017. Clause 8.2.1 only refers to the 2005 version. Please advise on whether the 2017 version is acceptable for this issue, as there are some differences between the two versions, for example: AS 2419.1-2017 allows the booster to be located not more than 10 m from the hardstand.
FRNSW comment: FRNSW does support AS 2419.1-2017 and the 10 m distance between the hardstand and booster assembly, however given AS 2419.1-2005 is the standard referenced by NCC 2019 this will require an alternative solution be proposed for this performance solution.		
19	Clause 9.3.1, Note	It is recommended to reword the following statement: “if stabilisers can only partially extend out of the field of operations of the aerial apparatus will be significantly restricted”.
FRNSW comment: Amended.		
21	Clause 10.1.3, Note	Performance Requirements EP1.3 and EP1.5 should be included as they talk about fire brigade operation and intervention. Clause A0.7 is no longer in NCC 2019. It is now A2.2(3)
FRNSW comment: Amended.		
22	Clause 10.2.4 (b)	Replace “an” with “a”: a suitable fire resistance level.
FRNSW comment: Amended.		
22	Clause 10.2.4 (b), figure 19	It is recommended to explain the aim of this requirement: I have this issue in one of my projects and FRNSW advised that this was because the fire brigade cannot perform an external fire attack on the side that has reduced vehicular access width, therefore they will need to apply jet streams from their appliance toward the wall and the wall is required to withstand the jet streams and therefore it is required to have an enhanced FRL. This requirement is not cost effective and does not consider the impact of the sprinkler systems, especially the ones with ESFR heads on the variation; also it does not consider whether the non-accessible side is the minor side or the major side of the perimeter.

Page or section no.	Section title / subject of section	Specific comments or suggestions
		Another alternative measure FRNSW can consider is as follow: FRNSW can require the hydrants in the building to have enough pressure to reach the top of the storage racks in the building. This is currently is not required under AS 2419 as the area at the top of the racks is not included in the definition of the floor area of the building. This will enable fire brigade to fight most fires in the building with minimum reliance on their external appliances.
FRNSW comment: An explanatory note has been added. The increased FRL is due to reduced fire brigade intervention that is likely along that sector of building, whether being internal or external firefighting, owing to the reduced level of accessibility being provided. At 4.5 m there will only be 1 m on either side of the fire appliance, which is just enough to exit the vehicle let alone conduct any firefighting operations. The increased FRL is not associated with withstanding jet streams from an appliance. The issue also does not relate to being either the major or minor side of the building/perimeter. External defensive operations become necessary when sprinkler systems are ineffective in containing fire spread. FRNSW branches have an optimum operating pressure of 700 kPa – increasing pressure is not practical.		
23	Clause 10.4.3 and note	The NCC Clause D1.2 permits buildings that have an effective height of less than 25m to have one exit. It is not clear why a Performance Solution should be sought if an aerial appliance cannot be a position to provide an alternative escape. A Performance Solution is only required if the issue does not comply with the BCA DtS and not with FRNSW requirements. I suggest deleting the whole clause.
FRNSW comment: Performance requirement CP9 and DP5 both require consideration of fire brigade intervention. The guide to the NCC identifies on numerous occasions the role of fire brigade ladders in providing rescue up to 25 m (D1.2b, D1.8, EP1.4, E1.5, E1.8a). The guide to the NCC also identifies in relation to performance requirement CP9 'Any access for the fire brigade must be appropriate to their needs and the type of vehicles and equipment to be used' (i.e. this guideline). It should be noted a performance solution is not only sought to address non-compliances with a DtS provisions –a building must satisfy all performance requirements, and some such as CP9 do not have any equivalent DtS provisions to demonstrate compliance with, particularly in respect to fire brigade vehicle access which is largely assumed. Some vehicle access requirements are addressed in secondary reference such as Australian Standard AS 2419.1-2005.		
25	Clause 10.6.4	Providing such information on each door might create a security issue. It is recommended to provide this information on the block plan and not as signage on each door. It is recommended to require the hydrant and sprinkler block plan to be provided at the main entry to each building. This is currently not required under the relevant standards.
FRNSW comment: Such exit doors are always secured from external access – a firefighter will generally only make access into the required exit when building occupants are evacuating via the exit. It is also not practical to convey such information on a hydrant and sprinkler block plan, which are typically non-scaled representative schematics. An appropriately scaled evacuation plan which is part of an Emergency services information package (ESIP) provided at the fire control centre is an acceptable alternative.		

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26	Clause 10.7.4	The possibility of roof collapse is not only associated with buildings with Type B of construction. It is associated with buildings that do not have fire-resisting roofs, which could be buildings with Type C or even Type A (as Type A buildings have concessions). It is recommended to use the word: risk instead of possibility.
FRNSW comment: Amended.		
26	Clause 10.7.5	The possibility of total wall collapse is not associated with buildings with Type C of construction, it is associated with buildings that have concrete external walls that could collapse as complete panels (e.g. tilt-up and pre-cast concrete). It is recommended to use the word: risk instead of possibility.
FRNSW comment: Amended.		
29	References	AS 2149.1-2005 should refer to amendment 1 of the standard. AS 1319 has been reconfirmed in 2018, so the correct reference should be AS 1319-1994 (R2018). Professionals might be reluctant to use an old standard.
FRNSW comment: The AS 2419.1-2005 standard as referenced by NCC 2019 is inclusive of amendment 1 changes – the 'AS 2419.1-2005/Amdt 1-2007' document is not a standalone standard thus is not referenced.		

General comments or suggestions
Please explain how information on the available fire appliances in each local fire brigade station can be obtained as this is not available in FRNSW website.
FRNSW comment: The document includes contact details for the FRNSW fire safety branch.