

Documentation of design and construction (suitability or evidence of suitability)

Project Name: Charlton Charlton House	
Project address: 61 Street Ledger Way.	Site Plans attached:
Prepared by: Anya English	
Date: 15/11/23	
Description of project:	
Charlton house is part of Ascot Green community with 112 apartments over 13 levels. Pool and rooftop terrace, indoor dining room	
Site Classifications, Class and Climate Zone Compliance (NCC bushfire, high wind, earthquake and alpine environment requirements.)	
class 2 - accommodation 2 or more sole-occupancy units	
class 6 - An eating room or cafe / restaurant	
class 10b - swimming pool.	
Climate zone 2 - Sub tropical, warm humid Summers and mild winters	
class A - Most sand and rock sites with little or no ground movement from moisture changes.	

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Site preparation		
Site preparation	NCC / Australian Standards requirements	Compliant Performance solution
Earthworks	Compliant of safeguarding people from loss of amenity caused by structural behaviour from physical damage cause by structural damage (compliant of AS3798 - 2007)	The building / Earthworks must sustain/maintain against all expected / repeated design actions inclusive of rainwater, earthquake snow action
Site preparation		
Site preparation	NCC / Australian Standards requirements	Compliant Performance solution
Earth retaining structures	Compliant of AS 4678 and safe guarding of people from loss of amenity caused by structural behaviour from physical damage caused by structural damage	Earth retaining structure must sustain against all expected and repeated design action, wind action, rainwater action and earthquake action
Drainage	A Building and any associated site work is to be constructed in a way that protects people and other properties from adverse effects of redirect surface water	A drainage system for the disposal of surface water resulting from a storm having an annual exceedance probability of 5% must convey surface water to an appropriate outfall and avoid surface water damaging the building and T.V. must avoid the entry of surface water into building

Site preparation	NCC / Australian Standards requirements	Compliant Performance solution
Termite risk management	Durable notice Permanently fixed materials that are not subject used entirely or combination of. AS 3660.1 Materials used not subject to termite risk. Must have design life of 50 years	Durable notice is fixed on meter box or the live of management used / date of installation chemicals used / installer recommendations
Materials	Timber Appendix C + D Materials compliant of 3600.1	is to be treated - Timber steel, aluminium / other metals, concrete, masonry, fibre, reinforcement cement.
Footings and slabs		
Site classification		
Footings and slabs	NCC / Australian Standards requirements	Compliant Performance solution
Footings and slabs	Footings + slabs to be designed and construction to withstand through actions of hydrostatic, hydrodynamic, erosion, wind and other	Performance solution to withstand against flotation, collapse or significant permanent movement

Footings and slabs	NCC / Australian Standards requirements	Compliant Performance solution
Moisture Barrier	If floor of a room is laid on the ground on damp proofing membrane complying with section 3.3.3 of AS 2870 must be installed	The structural resistance of materials/forms of construction must be determined using fire percentile characteristics material dimensional changes due to moisture
Materials	Barriers to prevent moisture from ground must have high resistance to moisture penetration + high resistance to damage during construction + high resistance to degradation by dissolved salts AS 2904 → must be compliant.	- Embossed black polyethylene film - Polyethylene coated aluminium - Bitumen impregnated materials no less than 2.5mm thick.
Concrete and reinforcement	NCC / Australian Standards requirements	Compliant Performance solution
Concrete and reinforcement	concrete construction AS 3600 autoclaved aerated concrete AS 5146.1 + 5146.3 post-installed and cast in fastening AS 6216	A concrete external wall (precast panel) must be designed so that in the event of fire within the building the likelihood of outward collapse is avoided.
Materials	are non-combustible and used whenever a non-combustible material is required	- concrete + autoclaved aerated concrete, mortar.

Masonry		
Masonry	NCC / Australian Standards requirements	Compliant Performance solution
Masonry	AS 2649.1 AS 2700 - masonry structure AS 3700 - masonry	a loadbearing internal wall and a load bearing fire wall must be constructed from masonry. in a class 5, 6, 7, 8 or 9 building
Moisture Barrier	Safe guard occupants from illness or injury and protect the building from damaged caused by surface water and external moisture entering a building and the accumulation of internal moisture in a building.	Mortar/brick aren't completely water resistant. Silane sealer can be used to create a protective barrier.
Materials	A lintel need not comply with it doesn't contribute to the support of a fire door, fire window or fire shutter and it spans an opening in masonry which is not more than 150mm thick and not more than 3m wide if the masonry is non-bearing or not more than 1.8m wide if the masonry is load bearing.	Solid calcium-silicate masonry minium. thickness (mm) 50-60/60/60+90/90/90/120/120 + 180/180/60 65-240/240/240 solid clay masonry 50-60/60/60/90/90+120/120/120 65-180/180/180 90-240/240/240 solid concrete 50-60/60/60+90/90/90+120/120/120 65-180/180/180.

Framing/Structure		
Framing/Structure	NCC / Australian Standards requirements	Compliant Performance solution
Framing	Building is to withstand the combination of loads and other actions to which it may be reasonably subjected	Where component has a calculated resistance coefficient of variation of less than 10:1 then a minimum value of 10:1 must be used.
Materials	masonry - AS 3700 concrete construction - AS 3600 autoclaved aerated concrete AS 5146.1 Steel Structure - AS 4100 Timber Structure - AS 1684.2 1684.3 1684.4	Timber + steel framing perimeter members must securely fixed to the adjoining structure and bedded in resilient compound or the joint must be caulked so that there are no voids between framing members and the adjoining structure.

Roof and Wall Cladding		
Roof and wall cladding	NCC / Australian Standards requirements	Compliant Performance solution
Roof and wall cladding	Sarking AS200.1 AS4200.2 stop water penetration is to be constructed to prevent penetration of water from the outside	Weatherproofing - roof and external wall must prevent the penetration of water that could cause unhealthiness or dangerous conditions or loss of amenity and undue dampness or deterioration of building element. Roof coverings must be compliant with AS204 fixed in accordance with AS200 sarking. Glazed assemblies resistant of water penetration - windows (sliding) sliding glazed doors with a frame (adjuster) over the shopfronts / windows walls with one piece framing.
Materials	Terracotta, fibre cement and timber slates and shingles designed and installed in accordance with AS497 Sarking type material must comply with AS4200.1 + AS200.2 materials for resistance water penetration	Roof must be covered with either roof tiles, metal sheeting, plastic sheeting, terracotta fibre cement and timber slates, external weatherproofing membrane sarking type material.

Glazing		
Glazing	NCC / Australian Standards requirements	Compliant Performance solution
Glazing Comply with AS2047	Glazing is to be installed in a building to avoid undue risk of injury to people → Glazing in a building should not cause injury to people due to its failure or people impacting with it because they did not see it.	must perform adequately under all reasonably expected design, damage and avoid causing damage to other properties sustained under wind action, earthquake action, snow action liquid pressure, ground water action ect.
Materials	lift shaft vision panels less than 6500mm² or equal to laminated, toughened, annealed glass with security, polyester film coating, safety wire glass, polyester glass. Glazed assemblies in an external wall must comply with AS2047	laminated 6mm to 76mm inter layer), toughened - 6mm to 76mm interlayer) annealed (6mm) safety wire subject to fire test polyester carbonated 6mm

Fire Safety		
Fire Safety	NCC / Australian Standards requirements	Compliant Performance solution
Fire Safety	A performance-based design brief (PBD) must be completed as it defines the scope of work for the fire engineering analysis	must involve all stakeholders relevant to building design + outline the fire strategy to be adopted must cover the fire safety strategy for the building outlining the philosophy and approach that will be adopted to achieve the required level of performance
	A sign must be installed on doors to communicate that the operation of doors can not be constructed	→ sign must be fixed on each side of the door → sign must be in capital letters not less than 20mm high in a colour contrasting
	A Building is to be provided with fire-fighting equipment to safeguard against fire spread to allow occupants to safely evacuate, so that the fire brigade have the necessary equipment to undertake search and fire-fighting operations	fire hose reels - occupants to safely undertake initial attack on a fire appropriate to the size of the fire compartment, function of the building other fire systems installed and the fire hazard fire extinguishers - allow occupants to take initial attack on fire appropriate to function of building other fire safety system and fire hazard fire hydrants

Access/Stairs/Lifts/Ramps		
Access/Stairs/Lifts/Ramps	NCC / Australian Standards requirements	Compliant Performance solution
Access	car parking to be provide for people with a disability for safe access. A Building is to provide as far as is reasonable safe and equitable and dignified access for people to the service and facilities within	car parking spaces must be provided to the degree necessary to give equitable access for car parking and designated and easy to find
	A required fire-isolated stairway including and associated fire-isolated passageway or fire-isolated ramp serving more than 2 below ground storeys AS 1668.1 D3D6	An automatic air pressurisation system for fire-isolated exits in accordance with AS1668.1 open access ramps or balconies Basements - not less than 2-exits must be provided from any storey if egress from that storey involves a vertical rise within the building
Materials	People can walk safely to within a building, have safe gradients stairways and ramps must have slip-resistant walking surfaces.	Gradient no steeper than 1:8 non-combustible materials

Ancillary Provisions		
Ancillary Provisions	NCC / Australian Standards requirements	Compliant Performance solution
Swimming Pool access and reticulation system operated by young children. Swimming pool water recirculation must incorporate safety measures to avoid entrapment of or injury to a person	A Barrier must be provided to a swimming pool and must be continuous for the full extend of the hazard and be of a strength and rigidity to withstand the foreseeable impact of people and restrict the access of young children to the pool and the immediate pool surrounds and have any gates and doors fitted with latching devices not readily	with the depth of water more than 300mm and which is associated with class I fire. The barriers installed in accordance with AS1926.1 + AS1926.2 recirculation satisfied with a depth of water more than 300mm
Heating appliances	A heating appliance, open fire place chimney or the like must be installed and withstand the temp. likely to be generated by the appliance and so that it doesn't raise the temperature of any building elements to a level that would adversely affect the elements physical or mechanical properties or function	- For a domestic solid fuel burning appliance AS2918 or for heating appliance part 12.4 of the ABCB housing provision
Bushfire prone Areas	safeguard occupants from injury from the effects of a bushfire and protect buildings from the effects of a bushfire and facilitate temporary shelter for building occupants who may be unable to readily evacuate the building prior to a bushfire	must be designed to reduce the risk of ignition from a design bushfire with an annual exceedance probability not more than 1:100 and take account of the assessed duration and intensity of the fire action of the design bushfire and be designed to prevent internal ignition of the building and its contents and maintain the structural integrity of the building for the duration of the design bushfire

Energy Efficiency		
Energy Efficiency	NCC / Australian Standards requirements	Compliant Performance solution
	A Building must reduce the energy consumption and energy peak demand of key energy using equipment	A Building must have features that facilitate the efficient use of energy appropriate to the function and use of the building, use and solar radiation and the energy source of the service and the sealing of the building envelope against air leakage
	Reduce the greenhouse gas emissions that occur as a result of a buildings energy consumption and energy source	For Class 7 it is determined that the annual greenhouse gas emissions of the proposed building are more than the annual greenhouse gas emissions of a referenced building when the proposed building is modelled with the proposed services and as the referenced building
	For other than a sole-occupancy unit of class 2/14 protect occupant health and amenity by ensuring the building envelope assists in the maintenance of acceptable internal conditions while the building is occupied.	the building complies with the simulation requirements and is registered for a green star - Design and AS Built or Green star building

Health and Safety

- Basement construction - vibration management + Plan
 - Building construction - construction management + Plan
 - Natural light is to be provided in all habitable rooms by windows
 - Ventilation is to be provided in all habitable rooms. Shower Sanitary compartment, bathroom, Shower + Laundry
- Water is to be prevented from penetrating behind fittings + linings or concealed spaces

Issues to be addressed and consultation					
Issue	Who to consult	Improvements for consideration	Feedback following consideration	Supporting Resources	
Alarm systems	R.L.V.	Smoke alarms + Sprinklers Fire hose	all alarm systems specified in specifications	N/A	
Termite prevention	R.L.V.	All materials used are not to have termite issues	Specifications	N/A	
workforce amount	Michelle	enough labour?	2 casuals will get more work. 1 casual to full time	N/A	
mould prevention	R.L.V.	timber treated	treatment IP specification	N/A	
glass / glazing	R.L.V.	prevent injury	all Specs will be sent with delivery		