Statement of Environmental Effects for an Affordable Housing Development

11-13 Mannix Parade, 2 Hinkler Avenue and 2-4 McGirr Parade, Warwick Farm

On behalf of Land and Housing Corporation

19 October 2020



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19 October 2020

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*This document is for discussion purposes only unless signed and dated by the project director.

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Table of Contents

1	1 Introduction			
	1.1	Supporting Plans and Reports	4	
	1.2	Council Pre-Lodgement Comments	5	
	1.3	Design Excellence Panel	23	
2	Site A	analysis	28	
	2.1	Location and Context	28	
	2.2	Site Description	29	
3	Propo	osed Development	34	
	3.1	Key Elements	34	
	3.2	Tree Removal and Landscaping	36	
	3.3	Lot Consolidation	37	
4	Planr	ning Legislation, Plans and Policies	39	
	4.1	Affordable Rental Housing SEPP	39	
	4.2	BASIX SEPP	42	
	4.3	SEPP 65—Design Quality of Residential Apartment Development	42	
	4.4	SEPP No 55—Remediation of Land	44	
	4.5	Georges River SREP	45	
	4.6	Liverpool LEP 2008	45	
	4.7	Liverpool DCP 2008	46	
5	Key Issues			
	5.1	Front Setback (From McGirr Parade)	50	
	5.2	Development Plans for Lot 272	51	
	5.3	Footprint	51	
	5.4	Façade Articulation	51	
6	Environmental Impacts			
	6.1	Overshadowing	51	
	6.2	Traffic and Parking	53	
	6.3	Stormwater Management	54	
	6.4	Acoustic and Vibration Impacts	54	
	6.5	Operational Waste Management	55	
	6.6	BCA	56	
	6.7	Accessibility	56	
	6.8	Geotechnical	57	
	6.9	Social Impact Comment	57	
	6 10	Tree Removal	60	



7 Conc	lusion	61
Sche	dule of Figures and Tables	
Figure 1.S	ite aerial image	28
Figure 2. L	ocal context map	29
Figure 3. S	ite seen from intersection of Mannix Pde and McGirr Pde looking SW	30
Figure 4. S	ite seen from intersection of McGirr Pde and Hinkler Ave looking SE	31
Figure 5. S	ite seen from Mannix Pde looking NW	31
Figure 6. B	Sus stop adjacent to site on McGirr Pde	32
Figure 7. N	ИсGirr Pde frontage looking west	32
Figure 8. R	Rear of dwelling at 2 McGirr Pde	33
Figure 9. N	Neighbouring RFB across McGirr Pde to the north	33
Figure 10.	Site plan	35
Figure 11.	North elevation	35
Figure 12.	East (side) elevation	36
Figure 13.	3D view (corner of McGirrr Parade and Mannix Parade	36
Figure 14:	Landscape masterplan	37
Figure 15:	Proposed subdivision plan	38
Figure 16:	Solar access diagrams, 9am – 3pm	53
Table 1.	Response to Council pre-lodgement comments	5
Table 2.	Response to DEP recommendations	23
Table 3.	Site description	29
Table 4.	Proposal numerical summary	34
Table 5.	ARHSEPP Division 1 In-fill affordable housing	39
Table 6.	Apartment Design Guide (ADG) key criteria	42
Table 7.	Liverpool LEP 2008 key controls	45
Table 8.	Liverpool DCP 2008 assessment	46
Table 9.	Parking breakdown	53
Table 10.	Section 4.15 summary assessment	61



1 Introduction

This Statement of Environmental Effects (SEE) has been prepared on behalf of NSW Land and Housing Corporation (LAHC) (the proponent) to support a development application (DA) to Liverpool Council (Council) for an affordable housing development at 11-13 Mannix Parade, 2 Hinkler Avenue and 2 McGirr Parade, Warwick Farm (the site).

The application is being made under the provisions of State Environmental Planning Policy (Affordable Rental Housing) 2009. The proponent is a social housing provider for the purposes of this policy.

The application is for Crown development with a capital investment value of over \$5 million, and therefore it is classified as regionally significant development pursuant to State Environmental Planning Policy (State and Regional Development) 2011. Accordingly, the application will be notified and assessed by Council and then determined by the Sydney Western City Planning Panel.

The proposed development generally includes the following works:

- Consolidation of 5 lots into 2;
- Construction of a 6-storey residential flat building with 43 apartments and 1 level of basement parking; and
- Associated tree removal and landscaping.

This SEE addresses the matters for consideration listed under Section 4.15 of the Environmental Planning and Assessment Act (EP&A Act) and is structured as follows:

- Description of site and context (section 2);
- Detailed description of the proposed development (section 3);
- Assessment of the proposed development against relevant local and State controls and policies (section 4);
- Key issues discussion (section 5);
- Assessment of potential environmental impacts resulting from the proposed development (section 6); and
- Conclusion (section 7).

1.1 Supporting Plans and Reports

This SEE is based on, and should be read in conjunction with, the following drawings and specialist reports, which have submitted under separate cover.

Plans/Drawings:

- Architectural drawings (Turner, 31 July 2020) and Design Statement (Turner, 14 August 2020);
- Civil and stormwater drawings (Webber Design, 14 August 2020);
- Subdivision plan (Deotard Smith & Partners);
- Landscape drawings (Arcadia 20 July 2020) and Design Report (Arcadia, July 2020); and
- Site survey (Norton Survey Partners, 14 November 2018).



Reports:

- Access Review (Morris Goding Access Consulting, 11 August 2020);
- Acoustics Report (Wood and Grieve Engineers, 17 August 2020);
- BASIX Summary Report (WSP, August 2020);
- BCA Design Assessment Report (Design Confidence, 18 August 2020);
- Demolition and Construction Waste Management Plan (Waste Audit, August 2020);
- Geotechnical Investigation (STS Geotechnics Pty Ltd, April 2020);
- Hazardous Building Materials Survey (JK Environments, 9 April 2020);
- Operational Waste Management Plan (Waste Audit, August 2020);
- Preliminary Site Investigation (JK Environments, 9 April 2020);
- Stormwater Drainage Computations (Webber Design, 14 August 2020);
- Stormwater Management Plan (Webber Design, 17 August 2020); and
- Traffic Impact Assessment (PTC, 17 August 2020).

1.2 Council Pre-Lodgement Comments

A pre-lodgement meeting was unable to be held due to current COVID-19 restrictions; however, Council undertook a review of pre-DA plans and provided written comments on 27 April 2020.

Key changes made to the design following receipt of Council's comments include:

- 7th storey deleted;
- Setback from McGirr Parade increased by 1m (now 3m-4m), which was achieved by moving the entire building south by 1m (building footprint no modified;
- Level 5 floor plan now replicates Level 4 plan;
- Total number of apartments reduced to 43;
- Total car parking reduced to 20;
- Total bicycle parking reduced to 22;
- FSR reduced to 1.92:1;
- Ground floor set at RL13.15 (supported by civil engineer); and
- Landscaped pergola added to driveway entry.

The above changes also incorporate the Design Review Panel's (DEP's) comments, which are directly addressed in section 1.3 below.

Council's comments are addressed in the table below.

Table 1. Response to Council pre-lodgement comments		
Council Comment	Response	
General Comments		
All aspects of the development are to be in accordance with SEPP 65 and the Apartment Design Guide (ADG).	Noted. A comprehensive ADG compliance table prepared by Turner accompanies the DA.	
As the applicant is proposing to provide affordable housing within the meaning of affordable housing provided by the Environmental Planning and Assessment	Noted. The development has been designed to comply. An assessment against the ARH SEPP has been included in the SEE.	



Act 1979, the development is to comply with the requirements of the State Environmental Planning Policy (Affordable Rental Housing) 2009.

In accordance with SEPP 65, the proposal is required to be presented to the Design Excellence Panel (DEP). In this instance, Council highly recommends the applicant arrange a Pre-DA meeting with the DEP prior to the lodgement of a Development Application. Given the scope and the issues identified with the conceptual design presented (see comments later in this document), it is considered likely that the DEP will have concerns that may result in significant design changes. This has the potential to delay the development application process, and perhaps result in unsupportable development. an meeting with the DEP prior to DA lodgement, the applicant is likely to avoid the potential for additional fees (e.g. amended plan submissions and renotification) and facilitate timely assessment and DA processing times.

A DEP meeting was held on 11 June 2020. A response to the DEP's recommendations is provided at section 1.3 of this SEE.

Comments Specific to the Pre-DA Plans

Any DA proposing the staged aspect of the lot consolidation and development, is required to provide Council with a clear conceptual detail regarding future possible design and development of the undeveloped residue land.

This is crucial in that future development impacts can be considered against the design and context principles of the ADG, and so that Council obtains an understanding of the strategic aspects of development over the entirety of the subject land. Including the consideration of any pertinent restrictions to be applied over the 2 proposed lots.

Following on from the above point, the applicant must indicate the intention of the structures on the proposed consolidated lot 272. The applicant must clearly indicate whether the existing structures would be demolished or retained.

Additionally, as this is the first development of its type in the locality, Council will apply the appropriate rigour to ensure the development responds positively to the site constraints (as created through lot consolidation and otherwise), and does not

The architect has developed potential residential flat building massing options for proposed Lot 272 as well as the lot to the south. This massing exercise has that the demonstrated proposed will not have development unreasonable impact on the adjoining lots' ability to redevelop for the purposes of a residential flat building.

Lot consolidation will occur under this DA and is not proposed to be staged.

It is intended to proceed with the demolition of existing structures via a CDC application. Council may wish to apply a condition of consent requiring demolition of all structures to be undertaken under this approval pathway. No demolition works are proposed under this DA.



result in setting an undesirable precedent for development to follow.

In accordance with the Liverpool Local Environmental Plan 2008, the maximum allowable building height for development on the subject land is 21m. Council is unlikely to support any variation to this, especially to the extent as shown on the Pre-DA plans, in particular as it contributes to additional overshadowing and visual amenity impact to adjoining land greater than anticipated in the setting of the relevant development standard for the locality.

The proposal has been lowered in height to comply with the 21m height limit.

It is considered there is additional opportunity and good design potential for this development given the book-end nature of the land bounded by 3 roads. The development should respond to this by focusing the height and bulk to the northern side of the block and scaling down towards the southern end such that overshadowing on adjoining land and over the communal open space is minimised.

Turner have adopted this design principle based on modelling and assessment of alternate massing options. Refer to the discussion in this report and submitted plans.

There is the opportunity to incorporate some communal open space on the rooftop area.

The role of LAHC is to deliver, manage and maintain the NSW Government's public housing portfolio, of which there are some 130,000 properties. Affordable, durable and robust social housing assets are central to LAHCs objectives.

Undertaking this suggested measure by Council would unfortunately increase the construction cost per dwelling and ongoing operational expenditure, which would ultimately lead to a reduced number of dwellings being delivered by LAHC.

Landscaped and planted elements to the rooftop area would involve a new ongoing maintenance cost to the asset as well as safety concerns for the tenants. Additionally, the risk of water ingress and moisture concerns increases with such inclusion and do not align with the objective to deliver robust and low maintenance accommodation.

It is further noted that there is no control requiring provision of rooftop open space.

The private rooftop terraces are quite large and would provide an undesirable outcome with respect to potential for overlooking and privacy impact of the proposed communal open space on the ground level and of current and future It appears as though Council have made an error when reviewing the plans, as the large "terraces" at rooftop levels are not private open spaces but rather for maintenance access only. Regardless, the proposed rear setbacks exceed ADG



adjoining developments. Landscaping/planters are to be incorporated into any proposed rooftop open space (private or communal) to ensure angles of view down into adjacent open space can be reduced sufficiently to avoid direct privacy impact.

minimum requirements, ensuring sufficient privacy for neighbouring properties.

Furthermore, it considered that overlooking to the ground communal open space is not an issue. This is a common feature of residential flat building development and is in fact desirable for crime prevention purposes. There would be no adverse privacy impacts as the communal open space is for communal, not private, purposes.

Solar Panels are encouraged by Council however any design is to take into consideration any additional overshadowing impact they may cause.

PV arrays are shown on the current drawings and are part of the modelled information for overshadowing analysis.

Overall, the current design and footprint is considered too wide and bulky for the created eastern lot. The development does not promote any horizontal design features / articulation or relief, and overall presents to the street as a dominant vertical structure with very rigid and repetitive window location and façade features. Additionally the building would not address the corner and effectively cuts off any presentation to the corner of Mannix and McGirr Parades, which corner developments are expected to provide.

The architectural documentation set has been further developed since the lodgement of the pre-lodgement drawings including further refinement of the elevations, facades and floorplans.

In response to Council's comments:

- The floorplate is considered very compact, containing a maximum of 8 apartments per floor, meeting the objectives of the ADG.
- As per the Liverpool DCP, an elevational strategy aimed at simplicity is proposed using the arrangement of rooms and the articulation of balconies and windows to compose the elevation.
- The brickwork to the facades, windows and ground floor terraces and fences have been further detailed in the current design to provide a fine-grain detail to the elevation.
- The aesthetics of the design and materials were supported by the DEP (see item 4.9 of DEP comments).

It is anticipated that a number of the units would not provide appropriate cross-ventilation being provided with only one external wall.

The proposal has been further developed to confirm natural cross-ventilation is achieved in accordance with the ADG objective 4B-3s and the glossary definition of natural cross ventilation.

The proposed development does not comply with the front setback control (primary and secondary), which requires a 5.5m setback in accordance with Part 4 of The proposal is designed to strike an appropriate balance between overshadowing and streetscape impacts.



the LDCP 2008. For a variation to be considered, the applicant would be required to provide further appropriate justification demonstrating how the overall design would be consistent with the objectives of the controls. Even so, this setback variation is rarely supportable.

The building mass is positioned towards the north of the site in order reduce overshadowing to the south and west, whilst still allowing for an appropriate front setback of 3m to 4m from McGirr Parade.

It is noted that the setback from McGirr Parade was increased by 1m as per DEP comments (see section 1.3 below).

The proposed setback is sufficient to achieve adequate deep soil for the planting of trees in the setback zone and has been confirmed by the landscape architect. The proposed front setback also facilitates additional communal open space to the rear.

The proposal is considered consistent with part 4 of the DCP (Setbacks):

- allowing space for landscaping, open space and solar access (including, in this case, to the area to the south of the site);
- providing visual and acoustic privacy, to create scale and;
- establishing a streetscape and enclosure appropriate to the locality and the future character of the locality.

Council is unsupportive of the basement setback to McGirr Parade. The basement is to be setback at least 3 metres to provide for the opportunity for deep soil planting. Additionally, the ground floor of the proposed development is elevated above the natural ground level by 700mm to 1300mm. This contributes to the breach in height limit and makes the basement car park protrude above the existing topography of the site, thereby resulting in an elevated Ground Floor level. Applicant must alter the basement height and lower the ground floor level.

The basement setback has been increased to approximately 3m in accordance with Council's comment.

The ADG recommends a change in level for terraces above the street to improve visual privacy and surveillance (refer to ADG objective 3C-1 and explanatory diagrams).

Due to the fall of the site, a small portion of a terrace is approximately 1.3m above natural ground level. The detailing of the fence and landscape assists to soften this transition. As the apartments are designed to accommodate people who may have accessibility requirements, a flat terrace transition from the living space is considered an important consideration. A terrace which stepped down from the living area would limit the usability of the space.

Also, the project civil engineer has advised against lowering the ground floor further due to minimum freeboard from the natural RL of the footpath level. Even though the site is not subject to flooding, they recommend having a minimum 150mm freeboard to overland flow path during a major storm period in order to ensure that



Table 1. Response to Council pre-lodgement comments			
	any runoff is diverted away from the building.		
	The basement cap aligns roughly with the centre of the ground floor terraces. Planters in the small spaces between the terraces provides additional opportunity for planting on the façade.		
Overall, Council considers that the basement arrangement is problematic and that additional excavation to provide for an additional basement level would allow	The traffic consultant supports the basement layout and has confirmed it complies with the relevant Australian Standards.		
for more optimal vehicular movement inside the basement, and would allow for additional deep-soil through the site, especially in usable communal open space	The basement fits within the overall urban design concept for the proposal and is consistent with the ADG and DCP.		
areas.	As an affordable housing project, is it important that basement parking is efficiently planned and that unnecessary expense of ramps and additional excavation is minimised.		
Given these identified design issues, the applicant must demonstrate that the design of the development will be compatible with the future desired character of the local area, and pursuant to SEPP ARH, is consistent (not inconsistent) with the existing locality character.	The site is planned for high density development, being located in the R4 High Density Residential zone. There will be no significant adverse impacts to surrounding properties (overshadowing, visual privacy, noise, etc.).		
The proposed development is to provide a greater housing mix. The applicant should aim to have not less than 10% of the total mix of units three or more bedrooms and not less than 10% of the total mix of units one bedroom. This is considered achievable given the 45 proposed units (possibly to be reduced given the height non-compliant top level). The 3 bedroom 10% minimum is considered especially pertinent, as 5 dwellings (family accommodation) are	The project is designed to LAHC requirements with appropriate consideration to the anticipated demand and understanding of the likely cohort to be accommodated by the project.		
	There is high demand for social housing and a long waitlist of applicants seeking accommodation. The provision of 1 and 2-bedroom units is in direct response to the demographics represented in the demand data.		
being removed to accommodate the development, and should be replaced.	As discussed with LAHC at the DEP meeting, this area is dominated by dwelling houses within the LAHC portfolio and the demand is heavily leaning toward small and single person households creating significant demand for the proposed mix.		
Further site consolidation is not required as the proposed development does not isolate adjoining sites, thereby not affecting future orderly development in the locality.	Noted.		
Council requires the applicant provides additional detail regarding the proposed location of the electrical substation, specifically whether it can comply with	The substation has been located to allow the development to be located 6m from		



meeting appropriate separation without requiring a blast wall to be constructed. For substations located outside the building envelope, details are to be provided in accordance with Integral Energy Substation Design Instruction Document No SDI 104 (Current Version).

the boundary (as per ADG building separation distances).

Details regarding compliance with Integral Energy guidelines can be provided as a condition of consent.

Traffic

A Traffic Impact Statement addressing traffic generation, impacts on the surrounding road network and parking provision is to be submitted.

Noted. A traffic impact statement forms part of the DA package.

Car parking provision is to comply with the SEPP (ARH), DCP and AS 2890 requirements.

Noted. The development has been designed to these meet these requirements.

Detailed driveway and car parking design including gradient, swept path analysis, line markings and sign posting to be submitted.

Noted. These have been included as part of the architectural drawings and traffic report.

Consideration is to be given and options provided for a Lighted semaphore vehicle priority device for the basement should the design insist on one-way movement in the basement ramps.

The proposal involves the provision of a 1-way contraflow movement in the basement ramp. The traffic management system is proposed to ensure the safety of all users is a traffic light system with traffic lights proposed at both basement and ground floor levels. The opposing vehicle will stop at the provided STOP line whilst a vehicle is travelling through the access ramp. The proposed line marking and signage are included in the car park review undertaken by the traffic consultant.

On-street parking restrictions to be provided.

The minimum vehicular sight splay has been calculated and shown on the plans prepared by the traffic consultant in accordance with Figure 3.2 of AS2890.1 applicable for a 50km/h frontage road.

The Standard states that the area within the sight splay is to be free of permanent sight obstructions.

Council to advise the appropriate minimum sight distance required to be maintained for the proposed access driveway.

Street lighting to Council's specifications.

Noted. This can be required as a condition of consent.

Engineering

Key Engineering Issues

See detail below.

1. On-site stormwater detention (OSD)



2.1.5m wide footpath to full site frontage

3. The building is proposed within the easement for sewerage. An approval from Sydney Water shall be obtained for any structure to be built over a pressure water main, sewerage rising main or within their easements.

<u>Stormwater</u>

- Stormwater drainage for the site must be in accordance with Council's Development Control Plan.
- A stormwater concept plan shall be submitted with the application.
- The stormwater concept plan shall be accompanied by a supporting report and calculations.
- On-site stormwater detention (OSD) is required for the development. The following shall also be addressed:
- a) Be in accordance with Council's OSD Policy and OSD Technical Specification.
- b) The on-site detention system must be within common property and accessible from the street without going through dwellings or private courtyards
- c) Electronic copy of the DRAINS model is to be provided to Council.
- d) Pre and post development discharge for a low recurrence interval (5yr ARI), medium recurrence interval (10yr, 20yr or 50yr ARI) and the upper interval (100yr ARI) shall be shown with a summary table provided.
- e) A pre and post-development catchment plan.
- Any proposed basement car park shall ensure that the stormwater drainage system has been designed in accordance with the requirements for pumped systems in AS3500.3:2003 and Council's Stormwater Drainage Design Specifications for pump out systems for basement carparks.
- A water quality treatment device shall be provided in accordance with Council's Development Control Plan. A MUSIC model shall be submitted with the development application.

Noted. The requested information has been submitted as part of the DA package.

Traffic & Access

A traffic report has been prepared by the traffic consultant which demonstrates that



The application shall be supported by a Traffic Report prepared by a suitably qualified person.

- The application must demonstrate that access, car parking and manoeuvring details comply with AS2890 Parts 1, 2 & 6 and Council's Development Control Plan.
- The proposed development shall be designed to be serviced by a Medium Rigid Vehicle.
- The application shall be supported by turning paths in accordance with AS2890 clearly demonstrating satisfactory manoeuvring on-site and forward entry and exit to and from the public road.

the proposed access, car parking and manoeuvring details are in accordance with AS2890.1, AS2890.6 and AS4299 (for adaptable spaces) and Council's Development Control Plan. Swept path assessment for basement access has been undertaken using a typical B99 vehicle. The assessment indicates that vehicles are able to forward in, forward out to and from the public roadway.

Regarding MRV access:

A swept path assessment was undertaken using a typical MRV to assess the manoeuvrability of the vehicle within the proposed basement level. The assessment indicated that a substantial number of car parking spaces would have to be removed to allow for MRV to manoeuvring. Also, the access ramp grade requirement has also been assessed in accordance with AS2890.2. This has shown that a 31.9m-long ramp needs to be provided. It is noted that the vertical wall-to-wall distance for the proposed development is only approximately 33.4m.

Therefore, due to site limitations, it is proposed that parking for the MRV be provided on-street. Swept path assessment has been undertaken to demonstrate that traffic flow along McGirr Parade can be maintained whilst the MRV is parked onstreet with cars parked directly opposite the vehicle.

Roadworks and Road Reserve Works

The development will require the following external road works:

• 1.5m wide footpath to full site frontage

Noted.

Earthworks

- No retaining walls or filling is permitted for this development which will impede, divert or concentrate stormwater runoff passing through the site.
- Earthworks and retaining walls must comply with Council's Development Control Plan.
- The application is to be supported by a geotechnical report prepared by a suitably qualified person to address salinity / acid sulphate soils.
- Proposed fill material must comply with Council's Development Control Plan.

Noted.



Subdivision Works

- The application is to be accompanied by a subdivision concept plan.
- The subdivision layout shall be in general accordance with Council's Development Control Plan.
- All subdivision works must be designed in accordance with Council's Design and Construction Guidelines.
- Any request for works in kind shall form part of the development application.
- The subdivision will require the following key infrastructure works:
- The width and design of the access handles shall be in accordance with Council's Development Control Plan.
- Consolidation of all lots is required. If Consolidation of lots is not intended, building envelopes shall not straddle lot boundaries and any proposed easements or right of ways are to be shown on a plan.

Noted.

Waste Management

- The demolition work required for this project will generate significant amounts of asbestos waste, as the five dwellings to be demolished all have external asbestos sheeting (fibro), and likely internal wet area wall and ceiling linings and eaves linings of fibro also. Among the ancillary structures (shed, garages etc.) on the five residential blocks to be cleared, it is also likely that significant amounts of fibro are present. The waste management plan will have to deal in detail with the management of asbestos construction, including the legislation and regulations that will be followed, any asbestos fibre monitoring to be undertaken, the use of a licenced asbestos contractor to undertake all fibro removal, wrapping and tipping and nomination of the licenced waste facility to which those materials will be taken.
- It is intended to proceed with the demolition of existing structures via a CDC application. No demolition works are proposed under this DA.

• The presence of other hazardous materials cannot be determined solely from an exterior visual inspection, but it is important that protocols are in place if these are encountered. A condition will be inserted into any approval covering the possibility that any of the dwellings to be demolished have air-conditioning systems fitted, which will require the extraction of

Noted.



any refrigerants into a durable, pressureresistant container by a licenced airconditioning technician and then sent for destruction at a facility licensed to undertake that work.

• As per normal practice, the Waste Management Plan (WMP) as regards the demolition, excavation and construction phases of the development is to cover the expected amounts (volumes or weights), of the various different types of materials to be produced, whether they will be re-used, recycled or landfilled (with the preference being for the first two of those options), and the facilities to which the materials will be taken. Council's clear preference is for waste materials to be sorted, classified and separated as they are generated.

Noted.

WMPs for the demolition, construction and operational phases have been prepared by Waste Audit and provided under separate cover. (Note: Given demolition is not proposed under this DA, the demolition details in the WMP are not applicable to the DA and have been provided for information purposes only.)

 Regarding the waste management once the development is complete and in-use, it is noted that there is a single ground floor waste room which serves double duty as both bin storage room and bulky household waste storage. It is noted that at present, this space is only accessible via single leaf doors; this is likely to present problems with both getting 660 litre mobile bins through those openings and getting the larger of the furniture items through that may need to be stored in there. Either extra width single doors will be needed, or preferably double-leaf doors. All walkways passageways down which waste bins or unwanted furniture items must be brought to the kerbside must be demonstrably wide enough to allow that to be done.

Extra width single doors suitable for 660 litre bins have been provided.

• For a development of this many units, 14m2 would need to be dedicated to bulky household waste storage. For 49 units, the bin arrangement that Council would be supplying would be 9 x 660 litre general waste bins and 9 x 660 litre recycling bins, collected once per week. The waste room as presently designed does not appear to be large enough to accommodate 18 x 660 litre bins (plus space for access and manoeuvring) and 14m2 for bulky waste, so the space dedicated to these will need to be enlarged. Twice a week collection is not an option. The features and inclusions of the waste storage room should be stated in the WMP in line with the requirements of the Liverpool DCP 2008.

The text below is taken from the 2008 DCP, p. 114 and clearly states a 6sqm minimum area:

In the case of multi dwelling housing or residential flat buildings of more than 25 dwellings, a designated space reflecting the number of dwellings shall be provided for temporary storage of disposed bulky items awaiting Council clean up or contracted removal. The minimum allocated space must be 6sqm, with a minimum height of 2m. The space shall be signed as to its purpose.

The waste room has been designed to accommodate 18 x 660L bins and 8 sqm for bulky waste. It is unclear where Council got the 14sqm figure.



• The storage of green waste from the common garden areas of the development is not stated. It would be Council's preference that the maintenance contractors of the property take all green waste from the gardens away with them as it is generated and dispose of it lawfully. Otherwise, additional secure waste storage capacity for green-lid bins would have to be provided. A consent condition to this effect would be included.

All green waste is to be removed by contractors engaged by LAHC.

• The waste bin room does not appear to be equipped with any kind of waste chute, nor do the individual levels of the building appear on the plans to have intermediate waste disposal spaces, which is the standard set-up for a building of this size and number of floors. The Liverpool DCP 2008 actually requires these to be provided for the ease and convenience of the residents to facilitate waste disposal, so departure from that would have to be iustified with reference to how the aims and objectives of the DCP are being achieved, rather than treated as an a priori assumption. Travel times to and from the bin storage areas must be considered, as must wait times for the lift.

A waste chute is not provided as per LAHC's requirements and its understanding of potential operational issues with their residents.

The proposal has two lifts as part of LAHC's requirements. This is in excess of ADG recommendations (two lifts required for developments of greater than 9-storeys).

A waste service room on each level have not been provided due to maintenance costs. The garbage holding room is purposely located at ground floor level, adjacent to the lobby entry and lifts to enable residents' easy access to dispose of waste correctly.

• Each individual unit must have enough storage for at least one day's worth of waste and recyclables. This will take the form of two separate, easily distinguishable and clearly marked containers to be supplied as part of the kitchen fit-out of each unit, to go into a cupboard or closet. This should be noted in the WMP.

This detail has been provided in the supporting WMP.

- The role of the building management and the cleaners/contractors must be covered in detail in the WMP. This includes:
- the rotation of bins when full, presentation of the bins for emptying and retrieval after emptying;
- the cleaning of the waste storage room on a regular basis;
- the regular provision of to residents of education, guidance, feedback and enforcement regarding correct waste handling, including getting the correct items in each bin and that recycling materials must be loose, not bagged up;
- managing resident's requests to store bulky household wastes prior to disposal

This detail has been provided in the supporting WMP.



and contacting Council to make bookings for the removal of those wastes as needed.

• The paths of travel of the bins should be noted in the WMP as having a gradient of not more than 7%. This is to ensure the safety of those involved in manually handling the bins, and to avoid the necessity to supply a bin tug/tractor.

This detail is included in the supporting WMP.

• The waste bins are intended to be collected from the kerbside of McGirr Parade adjacent to the development's driveway; this would generally be permissible given that this street is not within the CBD of Liverpool and is fairly quiet and with low traffic volumes. However, that street is quite narrow, and the presence of parked cars opposite where the truck will pull up to carry out the emptying of the waste bins may in fact block the road. There is also an existing bus stop located only a few metres from where the waste truck will be stopping. Further information will need to be provided to Council's Traffic section to ensure that both these issues can be safely and successfully managed. There is ample kerb-space available from which to pick up the waste bins on McGirr Parade, although consideration should be given early to flagging the need for timerestricted parking to cover that stretch of kerbside where the waste truck will pull up and carry out the manoeuvring and emptying of the bins. This is to ensure that parked vehicles from residents of the development, or other parties, do not impede the waste truck's ability to pull up where it needs to pull up.

Swept path analysis has been conducted to confirm a typical B99 vehicle can safely pass while a Council waste truck is parked on the street.

The proposed location of the 12.5 metres of kerbside needed for the parking of the waste truck and the rotation and emptying of waste bins has been indicated on the plans. Council to propose exact time and parking restriction dependent on Council policy and approximate time of waste collection.

- The WMP must cover:
- Asbestos procedures and practices to be followed, legislation and regulations to be observed, requirement for a licenced asbestos contractor to undertake all asbestos removal, wrapping and tipping works at a licenced disposal facility to be nominated in the plan.
- Details of volumes or weights of the various types of different waste materials to be generated by the demolition, excavation and construction phases of the development including whether they will be re-used, recycled or disposed of and the facilities they will be sent to.

See comments above.



- Confirmation of the features to be supplied in the waste storage room, in line with the requirements of the DCP.
- Nominate what is to be done with green waste from the common garden areas of the development. Either set aside a secure storage area for green waste bins from Council, or nominate that all green waste is to be taken away by contractors as it is generated.
- The expected volume of waste generation from the residents;
- The current design, featuring no waste chute or intermediate garbage spaces on each level, must be fully justified with reference to the aims and objectives of the DCP to show that this is not adversely affecting the convenience and ease with which residents can dispose of wastes. Otherwise, a waste chute and garbage compartments will be required.
- Details of the storage to be provided as part of the kitchen fit-out for at least one day's worth of waste and recyclables as stated above; two containers, clearly marked, one for general waste and one for recyclables.
- The roles of the building management and their agents must be clearly defined, both in the physical work associated with moving bins and cleaning and also the guidance, education, feedback and enforcement of correct waste management practices with the residents and management of bulky waste bookings.
- Confirm that intention regarding waste collections is to have the waste picked up from the kerbside of McGirr Parade and that the bin path between the bin storage room and the kerbside will not exceed a 7% gradient for safe manual handling.
- Plans must show:
- That the waste storage room is large enough to accommodate 14m2 of dedicated space for bulky waste, plus enough space for 18 x 660 litre waste bins in total and space for access by residents and manoeuvring of bins;
- All doors and accessways to the waste storage room or from the waste storage room to the street must be wide enough to allow free passage of the waste bins or bulky household items. Preferably double-leaf doors. Site plan should show the

These issues have either been addressed above or noted in the final report.



intended location on the kerbside where the bins are to be placed ready for emptying.

- Other information to be submitted to the satisfaction of Council's Traffic section must include:
- calculations that show that the waste truck (2.8 metres wide including mirrors) and another vehicle parked on the opposite side of the road will still allow for the safe passage of a standard vehicle between the two;

A swept path assessment has been undertaken along McGirr Parade which indicates that a typical Council waste collection vehicle with 2.8m width, is able to park on-street and still allow safe passage of a typical B99 vehicle.

- investigations that demonstrate that there is no clash between the presence of the existing bus-stop and the location where the waste truck must pull up; The plans indicate the location of the existing bus stop and the proposed location where the Council waste collection vehicle will park. The proposed location ensures that the existing bus stop location is not impeded by the presence of the waste collection vehicle. It is also noted that the bus route currently using the bus stop is no. 823. The bus route timetable indicates that the first service that arrives at the McGirr Parade bus stop is 9:20am, whilst waste collection is expected to occur at 5am. Hence, it is envisaged that no buses will require access to the existing bus stop whilst waste collection occurs.

- an advance request to flag the requirement for time- restricted parking on the mornings when waste services will be delivered, covering the 12.5 metres of kerbside needed for the parking of the waste truck and the rotation and emptying of waste bins.

Proposed location of the 12.5 metres of kerbside needed for the parking of the waste truck and the rotation and emptying of waste bins has been indicated on the plans.

Council to propose exact time and parking restriction dependent on Council policy and approximate time of waste collection.

Environmental Health

Acoustic Assessment

• Council's records indicate that the proposed residential accommodation is located on land within 100m of a road corridor for a freeway, tollway, transitway or any other road with an annual average daily traffic (AADT) volume of more than vehicles. Consequently, proposed development may be adversely impacted by noise or vibration. To address Clause 102 of State Environmental Planning Policy (Infrastructure) 2007, the Development Application shall be supported by an acoustic report prepared The traffic noise from Hume Highway has been considered in accordance with cl 102 of the ISEPP as part the acoustic report submitted with the DA package.



by a suitably qualified acoustic consultant for the noise sensitive development.

The acoustic report shall take into consideration any guidelines issued by the Director-General including the NSW Department of Planning document titled 'Development Near Rail Corridors and Busy Roads-Interim Guideline' dated December 2008. The development may generate additional traffic and affect existing residential or other noise-sensitive land uses. If required, road traffic noise impacts must be assessed in accordance with the 'NSW Road Noise Policy' prepared by the Department of Environment, Climate Change and Water NSW (DECCW NSW) dated March 2011. Furthermore, the construction of the proposed development may be a source of offensive noise and potentially impact upon human health and amenity. An acoustic report shall be prepared by a suitably qualified acoustic consultant in accordance with the State of NSW and the Department of Environment and Climate Change's (now known as Office of Environment and Heritage) 'Interim Construction Noise Guidelines' (July, 2009) and the Department of Environment and Conservation's (now known as Department of Planning, Industry and Environment) 'Assessing Vibration: A technical Guideline (February 2006). The cumulative effect of noise and vibration must be considered when assessing the impact upon receivers.

The project noise trigger levels for the proposed development shall be selected according to the most stringent intrusive or amenity criteria as prescribed in the NSW Environment Protection Authority's 'Noise Policy for Industry' (2017). If required, recommendations and noise control measures shall be specified to achieve compliance with the assessment criteria. The assessment shall be representative of all noise generating activities on-site including but not limited to machinery, tools, rock breaking and truck movements.

When assessing noise levels at commercial or industrial premises, the noise level shall be determined at the most affected point on or within the property boundary. Alternatively, when gauging noise levels at residences, the noise level shall be assessed at the most affected point on or within the residential property boundary. Where necessary, sound levels shall be adjusted in accordance with NSW Environment



Protection Authority's guidelines for tonality, frequency weighting, impulsive characteristics, fluctuations and temporal content.

Note: 'Suitably qualified acoustic consultant' means a consultant who possesses the qualifications to render them eligible for membership of the Australian Acoustical Society or employed by an Association of Australasian Acoustical Consultants (AAAC) member firm.

Waste Storage

- The garbage/waste storage area shall be clearly identified on the site plan and be located within the proposed building. The designated garbage/waste storage area shall comply with the following requirements:
- a) The room shall be fully enclosed and provided with a concrete floor, and with concrete or cement rendered walls coved to the floor;
- b) The room shall have a floor waste which is to consist of a removable basket within a fixed basket arrestor and is to comply with Sydney Water requirements; and
- c) The door to the room must be tightfitting, self-closing and fitted with mechanical ventilation.

Please refer to the Liverpool Development Control Plan 2008 for further information regarding the construction standards for waste storage areas.

Stage 1 - Preliminary Site Investigation

• The proposed development may be impacted by contaminated soils. The State Environmental Planning Policy No 55 – Remediation of Land Clause 7 requires a consent authority to consider whether the land is contaminated, that it is satisfied that the land is suitable in its contaminated state or that the land can be remediated to be made suitable contamination and remediation in determining a development application.

A suitably qualified and experienced contaminated land consultant is to prepare a Stage 1 - preliminary investigation for the property. The preliminary site investigation is to comply with guidelines made or approved by the NSW EPA under the Contaminated Land management Act

Noted.

Noted. A Stage 1 Preliminary Site Investigation is being submitted with the DA package.



1997 and identify all past and present potentially contaminating activities; identify potential contamination types; discuss the site condition; provide a preliminary assessment of site contamination; and assess the need for further investigations.

If contaminating activities are suspected or known to have occurred, or if the site history is incomplete it may be necessary to prepare a Stage 2 – Detailed Site Investigation. This investigation shall give regard to the potential effects of any contaminants on public health, the environment and building structures and shall meet the sampling density outlined in the NSW EPA Contaminated Sites Sampling Design Guidelines (1995).

Where the Stage 2-Detailed Site Investigation indicates that

the site poses unacceptable risks to human health or the environment, a Remedial Action Plan (RAP) shall be prepared by a suitably aualified and experienced Contaminated Land Consultant accordance with applicable guidelines made or approved by the NSW EPA under the Contaminated Land Management Act 1997. In these circumstances, the Remedial Action Plan shall be referred to Liverpool City Council for review.

Note: 'Suitably qualified and experienced contaminated land consultant' means someone who is certified under either the Environment Institute of Australia and New Certified Environmental 7ealand's Practitioner (Site Contamination) Scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) Scheme.

Community Planning

• The proposed development is approximately 450m from Warwick Farm Station and there are bus stops within walking distance. Therefore, is supportable from an accessibility and mobility point of view.

Noted.

• Liverpool Council Development Control Plan 2008 Part 1 Section 27 mentions that Council has a statutory obligation under Section 4.15 of the Environmental Planning and Assessment Act 1979 to consider the social impacts of development In accordance with DCP requirements, a Social Impact Comment has been provided at section 6.9 of this SEE. A comprehensive social impact assessment is not required.



applications and for development like Affordable Rental Housing, a social impact assessment is required. Liverpool Social Impact Assessment Policy 2015 provides detail guidelines about preparing a social impact assessment considering all required aspects. We need a detail SIA with the main development application including all aspects mentioned in the guideline.

1.3 Design Excellence Panel

A Design Excellence Panel (DEP) meeting was held on 11 June 2020. The DEP supported the proposal and provided a number of recommendations to be considered at the DA stage. These recommendations are addressed in the table below.

Table 2	Dochonco	DED roo	ommendatic	ma
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Recommendation

Response

4.1 Context

The panel notes (i.e. as noted in the Pre-DA advice), that the applicant owns the adjacent block. The panel recommends that the applicant prepares a drawing showing what the built form will look like on the neighbouring site, to see how the two sites relate to each other, and the impacts of both developments. In particular indicate the relationship of entrances for occupants and also car access requirements to basements.

The architect has prepared indicative massing for the adjacent site as requested. The massing shows that the adjacent site is able to be developed for the purposes of a residential flat building, similar to that proposed at the subject site.

It is considered unnecessary to provide details regarding future entrances and car access for the adjacent site. This can be addressed when the DA for that site is lodged.

This will be a precedent-setting development, being the first building of its kind within a new High-Density residential zone. The panel notes that the building envelopes set within the LEP and DCP are a key factor in shaping the future neighbourhood character. The proposed scheme exceeds Council's LEP controls for maximum permissible building height and DCP controls for minimum setback distance (i.e. along McGirr Parade). The panel does not support these breaches and recommends further investigation for achieving compliance with Council's controls for the site.

The building has been reduced in height to comply with the 21m control, and the building has been shifted to the south to reduce the setback non-compliance along McGirr Parade. The currently proposed setback from McGirr Parade is 3m-4m, which is considered acceptable as discussed in section 5.1 of this SEE.

The panel is concerned about the overshadowing of the neighbouring property (i.e. to the south).

The proposal has been reduced in height to comply with the 21m LEP control, which will minimise overshadowing impacts to an acceptable level. Overshadowing impacts are discussed in further detail at section 6.1 of this SEE.



The panel recommends preparing a scheme that demonstrates compliance with ADG requirements and ensures that all of the neighbouring sites will be capable of being developed.

The proposed development demonstrates compliance with ADG criteria with only minor exceptions as discussed at section 4.2 of this SEE.

As noted above, the architect has prepared indicative building massing for the adjacent lot to the west to demonstrate how this lot can be redeveloped. Other surrounding lots can be readily developed for high density purposes as well. The proposal will not isolate any lots or otherwise unduly impact on the surrounding lots' ability to redevelop.

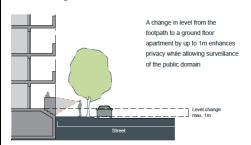
4.2 Built Form + Scale

As noted in 4.1 'Context', the panel recommends compliance with Council's controls for maximum possible building height and setback distances.

See discussion above.

The panel notes that the ground floor of the building is approximately 1 metre above existing ground level, (noted by the applicant as a response to stormwater/engineering levels) which is resulting in a physical and visual disconnection between the street and building, and a 1:1 landscaped batter on McGirr Street which the Panel believes will be difficult to maintain. The height breach is also partly a result of the raised ground floor level.

The level change is considered acceptable as the ADG explicitly recommends a change in level for terraces above the street to improve visual privacy and surveillance (ADG objective 3C-1) as shown in the diagram below:



Landscaped batters are common design features, and it is considered that maintenance of the batter will not be problematic. The detailed landscape plans submitted as part of the DA indicate that this area will be planted with a mixture of fast-growing, low-maintenance trees and shrubs species that will benefit from the northern exposure and rapidly colonise the batter.

It is further noted that the building setback from McGirr Parade has been increased to a minimum of 3m, which has reduced the slope of the landscape batter. This will make maintenance easier and assist in plant establishment.

The panel recommends that the height of the ground floor of the building is lowered to the existing level of McGirr Parade, and respective stormwater/engineering issues resolved, to enable this to occur. The panel accepts that in

As above.



doing so, there may still be a height non-compliance of up to about 1.8m, however this will improve the relationship between the development and street front and the Panel may support this minor breach.

The panel appreciates that the submission aimed to reduce the setback to the north McGirr Parade) to ameliorate overshadowing to the southern blocks, however on balance the Panel recommends increasing the setback by 1 metre. It should still be possible to maintain solar access to the southern sites, particularly if some or all of the unused compliant building volume along the western side of the building is captured. The proposal should also include additional landscaping along the McGirr Parade frontage to address potential privacy issues, particularly in relation to the bus stop in the middle of the McGirr frontage.

The front setback has been increased by 1m (to a minimum of 3m) in accordance with the DEP's recommendation.

4.3 Density

The panel notes that there is a non-compliance with Council's DCP controls for density on the site, however the panel accepts this non-compliance if the issues noted in 4.2 'Built Form & Scale' is addressed. The Panel does not support exceedance of the LEP density control.

Noted. The issues in 4.2 above have been adequately addressed.

The proposal is subject to a total maximum FSR of 2:1 (base 1.5:1 under the LEP + 0.5:1 additional FSR under the ARH SEPP).

The proposal provides a GFA of 3,224m², which is equivalent to an FSR of 1.92:1.

There is unused floor space within the permitted envelope along the western side of the site, next to the driveway. (The Panel agrees that the applicant's strategy of moving bulk away from the southern side of the site is appropriate.) According to drawing A-850-011, if ADG setback provisions for habitable rooms/balconies are followed, this unused envelope comprises, for GF to L3, area to the west of Unit .07 and above. For non-habitable (including openings with fixed translucent glass in habitable rooms) unused envelope comprises: for GF to L3, a strip 3.0m wide along the western edge, between the 3.0m and 6.0m setbacks; for L4 to L6, a strip 4.5m wide along the western edge, between the 4.5m and 9.0m setbacks. Utilisation of some or all of this potential building volume would help address the floor area lost once the proposal is re-worked to provide the additional metre of setback from McGirr Parade recommended above. Consideration must still be given as to how this will affect the development potential of the adjacent site to the west, but provided ADG setbacks are complied with, the Panel believes the resultant The building has been shifted south in order to accommodate the 1m increase in setback from McGirr Parade. This response is acceptable as the building maintains ADG-compliant rear setbacks and has no unacceptable overshadowing impacts.



outcome will be acceptable if a greater street setback from McGirr is achieved. 4.4 Sustainability The panel recommends incorporating passive Noted. The proposal will be constructed to energy-saving techniques (e.g. insulation, high comply with relevant BASIX requirements. performance glazing, no thermal bridges, wellsealed building envelope and energy efficient lights and appliances) to provide increased comfort, improved health and lower living costs for residents. The panel supports the inclusion of solar panels Noted. on the rooftop of the building. These should be able to offset most of the energy used in operation if passive house certification can be achieved. 4.5 Landscape As noted in 4.2 'Built Form & Scale' the panel is Detailed landscape plans have been concerned with how the ground floor level of prepared which provide a resolved the building meets with the McGirr Parade landscaped solution. frontage, including the proposed 1:1 batter. A Public domain landscaping upgrades are more resolved landscape solution is needed outside the scope of the application. It is and a more holistic response to the public noted that Council may impose certain domain (in particular the bus shelter /seating upgrades (if required) as part of conditions area along the McGirr Parade frontage) needs of consent. to be prepared, in order to support the urban typology of the street and mitigate the impacts of the reduced setback. 4.6 Amenity The panel recommends including landscaping A landscaped pergola structure over the along the western boundary (I.e. next to driveway entry has been added for the driveway) and the addition of a pergola over screening of vehicular access. the driveway, with greenery growing over it, to ameliorate the impacts of the driveway, provide landscape amenity, and act as a marker to the driveway entry, thereby increasing safety.

The panel recommends considering double glazed windows on the McGirr Parade frontage, to mitigate the noise impacts of the busy road and bus stop while making the dwellings more thermally comfortable.

The proposal achieves compliance with BASIX requirements utilising single glazed windows in general. Double glazed windows along the McGirr Parade frontage would significantly increase the cost of the development and reduce LAHC's ability to provide an adequate number of affordable housing units at the site.

4.7 Safety

The recommendations made in 4.2 'Built Form & Scale' regarding lowering the level of the ground floor of the building to the existing ground level along the McGirr Parade frontage, will negate the need for the main

It is considered that the change in level will improve passive surveillance and increase safety by providing an improved vantage point from which to overlook the street. The ADG, in fact, recommends a change in



entry stairs and access ramp on Mannix Parade and 1:1 landscape batter on McGirr Parade, which will improve entry quality and passive surveillance over the street, thereby increasing the safety of the site.	level for terraces above the street to improve visual privacy and surveillance (refer to ADG objective 3C-1 and explanatory diagrams).
4.8 Housing Diversity + Social Interaction	
The panel accept the building mix, given that it is an affordable housing development and the panel understands the demand for social housing in this location.	Noted.
4.9 Aesthetics	
The panel supports and commends the overall aesthetics of the development, noting that it is finely tuned for an affordable housing development.	Noted.
The panel supports the mix of materials, detailing, and choice of robust and durable materials such as brickwork.	Noted.
The panel supports the setting back of the top floor of the building.	Noted.



2 Site Analysis

2.1 Location and Context

The site comprises five lots located at 11-13 Mannix Parade, 2-4 McGirr Parade and 2 Hinkler Avenue, Warwick Farm, approximately 100m to the north of Hume Highway.

The proposal intends to consolidate the existing 5 lots into 2 and construct a residential flat building on the eastern lot (marked red the aerial image below). That is, the eastern lot forms the site area for the purposes of the proposed residential flat building. No construction is proposed on the western lot as part of this application.







Total site

Figure 1. Site aerial image Source: Mecone Mosaic

The surrounding context is mixed use in nature, comprising a mix of low to medium scale residential and commercial development. A strip of neighbourhood shops is located immediately to the north of the site across McGirr Parade. A local context map is provided at Figure 2.





All Saints HS Figure 2. Local context map

Source: Mecone

2.2 Site Description

The table below provides a summary description of the site and surrounds.

Table 3. Site description	
Item	Description
Lot/DP	Lot 26 DP36641
	Lot 27 DP36641
	Lot 9 DP36641
	Lot 8 DP36641

15 Liverpool Memorial Park



	Lot 10 DP36641 (part of consolidation only; no works on this lot)		
Address	11-13 Mannix Parade, Warwick Farm 2 McGirr Parade, Warwick Farm 2 Hinkler Avenue, Warwick Farm		
Road frontage	Approx. 40m to McGirr Parade Approx. 43m to Mannix Parade		
Local government area	City of Liverpool		
Owner	Land and Housing Corporation		
Area of all 5 existing lots	2,929m²		
Area of proposed RFB lot (proposed Lot 273)	1,683m²		
Topography	The site is relatively flat		
Existing development	There is a single storey dwelling on each of the subject lots.		
Surrounding development	The surrounding area is characterised by a mix of dwelling houses and 3-storey residential flat buildings. Development adjoining the site comprises single storey dwellings. Local neighbourhood shops are located approximately 70m to the north.		
Transport network	Warwick Farm Station is approximately 450m walking distance to the south east of the site.		

Photos of the site are provided in the figures below.



Figure 3. Site seen from intersection of Mannix Pde and McGirr Pde looking SW Source: Google Maps





Figure 4. Site seen from intersection of McGirr Pde and Hinkler Ave looking SE Source: Google Maps



Figure 5. Site seen from Mannix Pde looking NW Source: Taylor





Figure 6. Bus stop adjacent to site on McGirr Pde Source: Taylor



Figure 7. McGirr Pde frontage looking west Source: Taylor





Figure 8. Rear of dwelling at 2 McGirr Pde Source: Taylor



Figure 9. Neighbouring RFB across McGirr Pde to the north Source: Google Maps



3 Proposed Development

The application seeks approval for:

- Consolidation of 5 lots into 2;
- Construction of a 6-storey residential flat building with 43 apartments (100% for the purposes of affordable housing) and 1 level of basement parking; and
- Associated tree removal and landscaping.

3.1 Key Elements

Key components of the development are summarised in the table below.

Table 4. Proposal numerical summary			
Element	Numeric		
Use	Residential flat building (100% affordable housing) + one level of basement parking		
Maximum height	RL 32.960 (at lift overrun) Or approx. 20.51m from existing ground level 6 storeys		
Apartment breakdown	Ground floor	7 apartments (5 x-1 bed, 2 x 2 bed)	
	Level 01	8 apartments (4 x 1-bed, 4 x 2-bed)	
	Level 02	8 apartments (4 x 1-bed, 4 x 2-bed)	
	Level 03	8 apartments (4 x 1-bed, 4 x 2-bed)	
	Level 04	6 apartments (2 x 1-bed, 4 x 2-bed)	
	Level 05	6 apartments (2 x 1-bed, 4 x 2-bed)	
	Total	43 apartments (21 x 1-bed, 22 x 2-bed)	
Floor space ratio	GFA = 3,224m ² Site area = 1,683m ² m ² FSR = 1.92 (permitted 2:1)		
Adaptable apartments	5 apartments (12% of total)		
Car parking	20 spaces including 5 accessible spaces (all in basement parking level)		
Bicycle parking	22 bicycle parking spaces in basement 4 bicycle parking spaces at ground level adjacent front entry		
Access	Access is via a single driveway off McGirr Parade leading to the basement parking level.		



The development is illustrated in the figures below.

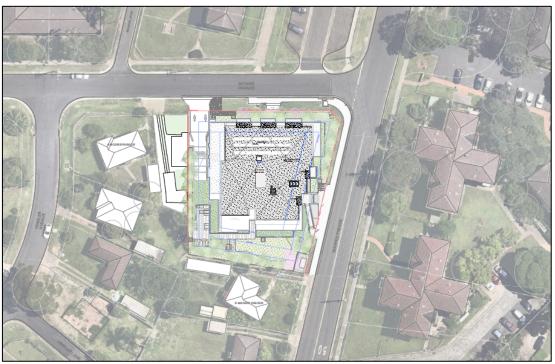


Figure 10. Site plan Source: Turner



Figure 11. North elevation Source: Turner





Figure 12. East (side) elevation

Source: Turner



Figure 13. 3D view (corner of McGirrr Parade and Mannix Parade Source: Turner

3.2 Tree Removal and Landscaping

The proposal includes removal of 2 trees (White Cedar) located at the southwestern and northern boundaries of the site. The trees have been identified has having low significance and low/remove retention value.

The trees will be replaced with multiple advanced specimens as indicated on the landscape plan prepared by Arcadia.



Key principles for the landscape design include:

- Maximise deep soil zones;
- Provide functional outdoor spaces that respond in micro-climate, aspect and acoustic challenge, and that can be used throughout the year;
- Create a sense of ownership among residents over the landscaping;
- Provide privacy between private and communal spaces, and enhance passive surveillance for residents.

The proposal will provide for a landscaped area of 497m² plus an additional 134m² of landscaping on structure.

The proposed landscape masterplan is shown in the figure below.



Figure 14: Landscape masterplan

Source: Arcadia

3.3 Lot Consolidation

It is proposed to consolidate the existing five lots into two (new Lot 272 and Lot 273), with the residential flat building on the new Lot 273. Refer to the image below for an extract of the subdivision plan.



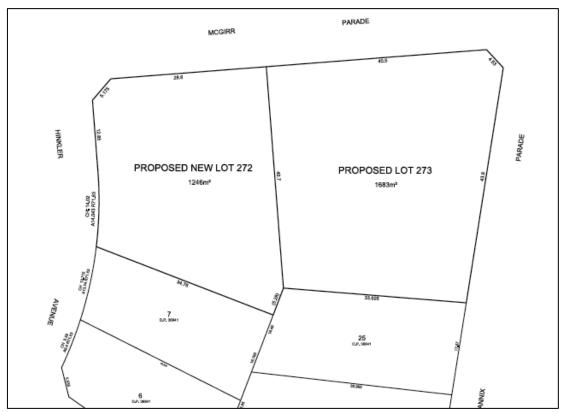


Figure 15: Proposed subdivision plan Source: Degotardi Smith & Partners



4 Planning Legislation, Plans and Policies

This section provides an assessment of the proposed works against the relevant State and local planning provisions. The following plans/policies have been considered:

- State Environmental Planning Policy (Affordable Rental Housing) 2009 (ARH SEPP);
- State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 (BASIX SEPP);
- State Environmental Planning Policy No 55—Remediation of Land (SEPP 55);
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development (SEPP 65);
- Greater Metropolitan Regional Environmental Plan (GMREP) No 2—Georges River Catchment (Georges River SREP);
- Liverpool Local Environmental Plan (LEP) 2008; and
- Liverpool Development Control Plan (DCP) 2008.

4.1 Affordable Rental Housing SEPP

The ARH SEPP aims to facilitate the delivery of new affordable housing by providing incentives by floor space ratio bonuses, zoning permissibility and non-discretionary development standards.

The proposed development is for a residential flat building that will allocate 100% of the gross floor area towards affordable housing apartments, thereby triggering the bonus floor space provisions under Division 1 of the ARH SEPP.

A summary of the relevant provisions and compliance with ARH SEPP is provided in the table below:

for the purposes of dual occupancies, multi dwelling housing or residential flat buildings if— (a) the development concerned is permitted with consent under another environmental planning instrument, and (b) the development is on land that does not contain a heritage item that is identified in an environmental planning instrument, or an interim heritage order or on the State Heritage Register under the Heritage Act 1977. (2) Despite subclause (1), this Division	Table 5. ARHSEPP Division 1 In-fill affordable housing			
(1) This Division applies to development for the purposes of dual occupancies, multi dwelling housing or residential flat buildings if— (a) the development concerned is permitted with consent under another environmental planning instrument, and (b) the development is on land that does not contain a heritage item that is identified in an environmental planning instrument, or an interim heritage order or on the State Heritage Register under the Heritage Act 1977. (2) Despite subclause (1), this Division	Provision	Compliance		
for the purposes of dual occupancies, multi dwelling housing or residential flat buildings if— (a) the development concerned is permitted with consent under another environmental planning instrument, and (b) the development is on land that does not contain a heritage item that is identified in an environmental planning instrument, or an interim heritage order or on the State Heritage Register under the Heritage Act 1977. (2) Despite subclause (1), this Division	10 Development to which Division applies	Complies		
does not apply to development on land in the Sydney region unless all or part of the development is within an accessible area.	for the purposes of dual occupancies, multi dwelling housing or residential flat buildings if— (a) the development concerned is permitted with consent under another environmental planning instrument, and (b) the development is on land that does not contain a heritage item that is identified in an environmental planning instrument, or an interim heritage order or on the State Heritage Register under the Heritage Act 1977. (2) Despite subclause (1), this Division does not apply to development on land in the Sydney region unless all or part of the development is within an accessible	The land is not a heritage item, is not subject to an interim heritage order and is not on the State Heritage Register. The site is within an accessible area given it is less than 800m walking distance from Warwick		



11, 12 (Repealed)

NA

13 Floor space ratios

(1) This clause applies to development to which this Division applies if the percentage of the gross floor area of the

development that is to be used for the purposes of affordable housing is at least 20 per cent.

- (2) The maximum floor space ratio for the development to which this clause applies is the existing maximum floor space ratio for any form of residential accommodation permitted on the land on which the development is to occur, plus—
- (a) if the existing maximum floor space ratio is 2.5:1 or less—
- (i) 0.5:1—if the percentage of the gross floor area of the development that is used for affordable housing is 50 per cent or higher, or
- (ii) Y:1—if the percentage of the gross floor area of the development that is used for affordable housing is less than 50 per cent.

where-

AH is the percentage of the gross floor area of the development that is used for affordable housing.

 $Y = AH \div 100$

Complies

The proposal is subject to a total maximum FSR of 2:1 (base 1.5:1 under the LEP + 0.5:1 additional FSR under the ARH SEPP).

The proposal provides a GFA of 3,224m², which is equivalent to an FSR of 1.92:1.

14 Standards that cannot be used to refuse consent

(1) Site and solar access requirements

(b) Site area

If the site area on which it is proposed to carry out the development is at least 450 square metres

Complies

The site has an area of 1,683m².

(c) Landscaped area

In the case of a development application made by a social housing provider—at least 35 square metres of landscaped area per dwelling

Complies with ADG private open space, communal open space and deep soil criteria

Based on 43 total dwellings, this control technically requires a landscaped area of 1,505m², which is considered excessive given the nature of the development as a residential flat building in a high density zone.

A reasonable interpretation of the control is that the $35m^2$ requirement relates to dwellings at ground level. In this case the control requires $245m^2$ of landscaped area $(7 \times 35m^2)$.

The proposal provides a total landscaped area of 497m², equivalent to 29.5% of the site area. If the large ground level planter beds are



included in calculation, the total landscaped area is 631m² or 37.5% of the site area. This amount of landscaping is appropriate to the nature of the proposal and to the emerging high density context.

It is further noted that the proposal complies with ADG private open space, communal open space and deep soil requirements.

(d) Deep soil zones

There is soil of sufficient depth to support the growth of trees and shrubs on an area of not less than 15 per cent of the site area (the deep soil zone), and

Each area forming part of the deep soil zone has minimum dimension of 3 metres, and

If practicable, at least two-thirds of the deep soil zone is located at the rear of the site area.

Complies with ADG criteria

The following deep soil zones are proposed:

- 6m minimum dimension deep soil zone – 194m² or 11.5% of site area; and
- 2m-6m minimum dimension deep soil zone 467m² or 27.7% of site area.

Refer to the ADG assessment in section 4.2 of this report for further detail.

(e) Solar access

If living rooms and private open spaces for a minimum of 70 per cent of the dwellings of the development receive a minimum of 3 hours direct sunlight between 9am and 3pm in mid-winter.

Complies with ADG criteria

Refer to the ADG assessment in section 4.2 of this report for further detail.

(2) General

(a) Parking

In the case of a development application made by a social housing provider for development on an accessible area – at least 0.4 parking spaces are provided for each dwelling containing 1 bedroom, at least 0.5 parking spaces are provided for each dwelling containing 2 bedrooms and at least 1 parking space is provided for each dwelling containing 3 or more bedrooms

Complies

21 (1-bed) x 0.4 spaces = 9 spaces required 22 (2-bed) x 0.5 spaces = 11 spaces required Total required = 20 spaces

The proposal provides 20 spaces, which complies with the requirement.

(b) Dwelling size

Each dwelling has a gross floor area of at least

- 50 square meres for 1 bedroom
- 70 square metres for 2 bedrooms

Complies

All dwellings are above the minimum requirements.

16A Character of local area

A consent authority must not consent to development to which this Division applies unless it has taken into consideration whether the design of the development is compatible with the character of the local area.

Complies

While the surrounding context is characterised by detached dwellings and low rise residential flat buildings, the development satisfies the objectives of the R4 High Density zone and is consistent with the future desired character of Warwick Farm. Also refer to the context and neighbourhood character discussion in the



Design Verification Statement submitted under
separate cover.

4.2 BASIX SEPP

The BASIX SEPP aims to achieve consistency in the implementation of the BASIX scheme across the State.

A BASIX report prepared by WSP has been submitted under separate cover. The report demonstrates how the development meets the statutory requirements for single occupancy dwellings under Section J and BASIX in accordance with the SEPP requirements. It is expected that a condition of consent will be applied requiring compliance with the commitments listed in the BASIX report.

4.3 SEPP 65—Design Quality of Residential Apartment Development

SEPP 65 provides objectives to improve the design quality of residential apartment development in NSW.

The Apartment Design Guide (ADG) is a document that is to be read in conjunction with SEPP 65. It provides an integrated approach for assessing the quality and design of residential apartment development.

The table below provides a summary of the key design criteria contained within the ADG that must be considered for development for the purposes for a residential flat building.

Table 6. Apartment Design Guide (ADG) key criteria				
Criteria	Provision	Compliance		
Solar access	Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9am and 3pm at midwinter.	Complies 32/43 or 74% of apartments receive at least 2 hours of solar access to living areas and balconies between 9am and 3pm mid-winter.		
	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid-winter	Complies 1 apartment (2.3%) receives no direct sunlight between 9am and 3pm at mid-winter.		
Cross ventilation	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building.	Complies 26/43 or 60.5% of apartments are naturally cross ventilated.		
Communal open space	Communal open space has a minimum area equal to 25% of the site.	Complies 421m² or 25% of the site area is provided for the purposes of communal open space.		



Table 6. Apa	rtment Design Guide (ADG) key cı	riteria
	Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid-winter)	Complies Two hours of sunlight is achieved to 216m² of the principal communal open space (equivalent to 51.6% of the communal open space area of 421m².
Deep soil	Deep soil zones are required to by 7% with minimum dimensions of 6m.	Complies The proposal provides the following deep soil zones: • 6m minimum dimension deep soil zone – 194m² or 11.5% of site area; and • 2m-6m minimum dimension deep soil zone – 467m² or 27.7% of site area.
Lift cores	The maximum number of apartments sharing a circulation core is eight	Complies A maximum of 8 apartments share the circulation core on each level.
Building separation	Minimum distances from side and rear setbacks is required: Up to four storeys/12 metres: 12m to habitable rooms/balconies 9m between habitable and non-habitable rooms 6m between non-habitable rooms Five to eight storeys/up to 25 metres: 18m to habitable rooms/balconies 12m between habitable and non-habitable rooms 9m between non-habitable rooms 9m between non-habitable rooms	Minor variations proposed Storeys 1-4 6m side and rear setbacks have been provided, with the exception of the Unit 1.07 stack, which has a small balcony encroachment into the western side setback. The balcony encroachment extends 600mm into the side setback for a total length of 3m. This minor encroachment contributes to façade articulation and increase solar access to balcony users while having no notable adverse impact on surrounding properties or the public domain. Storeys 5-6 9m side and rear setbacks have been provided. The corner of the terrace on Level 04 encroaches into the setback by 300mm. This area, however, is for services and maintenance access only, and therefore the encroachment would not result in any adverse visual privacy impacts.
Car Parking	For development on sites that are within 800m of a railway station or light rail stop in the Sydney	ARH SEPP parking standard prevails



Table 6. Apartment Design Guide (ADG) key criteria

Metropolitan Area, the minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less.

Refer to section 4.1 of this report for further detail.

Critical to SEPP 65 is Clause 6A, which states that the ADG will prevail in the event of an inconsistency any local DCP regarding items relating to:

- a) Visual privacy;
- b) Solar and daylight access;
- c) Common circulation and spaces;
- d) Apartment size and layout;
- e) Ceiling heights;
- f) Private open space and balconies;
- g) Natural ventilation; and
- h) Storage.

4.4 SEPP No 55—Remediation of Land

Clause 7 of SEPP 55 stipulates that a consent authority must not consent to the carrying out of any development on land unless:

- a) It has considered whether the land is contaminated, and
- b) If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
- c) If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

The subject site has previously been used for residential purposes since 1947, along with agricultural purposes prior to 1947. The proposal, which includes the construction of an affordable housing development will continue to be used for residential purposes. It is anticipated that the proposed use, which is consistent and aligns with previous uses, will satisfy the aims of the SEPP with respect to reducing any risk of harm to human health or any other aspect of the environment.

A Preliminary Site Investigation (STS, April 2020) has been submitted under separate cover. The investigation identified the following potential contamination sources at the site:

- Fill material across the site:
- Historic use of the site as an airfield:
- Historic agricultural use of the site;
- Use of pesticides within the site; and
- Hazardous building materials within current and former structures.



STS provides the following key recommendations:

- A review of SafeWork records pertaining to the site for the storage of dangerous goods should be undertaken;
- Additional investigation is undertaken to better assess the extent of asbestos impact across the site. The investigation should also assess the soil and groundwater salinity conditions at depth;
- A remediation action plan (RAP) is to be prepared to address the asbestos contamination;
- A salinity management plan (SMP) is prepared for the development; and
- A validation report is to be prepared detailing the effectiveness of the remediation and confirming the suitability of the site for the proposed development.

Based on the above, provided these recommendations are implements, there is considered to be no requirement to report any contamination under the NSW EPA Guidelines on the Duty to Report Contamination under Section 60 of the CLM Act 1997.

For the reasons noted above, the proposal is considered to satisfy the provisions of SEPP No 55 – Remediation of Land.

4.5 Georges River SREP

The proposal is consistent with the aims, general principles and specific planning principles of the Georges River SREP.

The proposal is unlikely to have any adverse impact on the water quality and flow of the Georges River and its tributaries. The proposal includes adequate water management measures consistent with the stormwater drainage design and water sensitive urban design requirements of Liverpool Council.

The water quality modelling conducted as part of the proposal confirms that the proposal will exceed minimum pollutant removal requirements. The quantity of outflow from the site will also be suitably controlled through the use of on-site detention tanks.

4.6 Liverpool LEP 2008

The table below provides an assessment of the development against key relevant provisions in Liverpool LEP 2008.

Table 7. Liverpool LEP 2008 key controls		
Provision	Compliance	
Zone	Complies	
The site is zoned R4 High Density Residential.	The proposed development is a building	
Residential flat buildings are permitted with consent in the zone.	containing three or more dwellings and does not meet the definition of an attached dwellings or multi dwelling housing.	



	Therefore, it is best characterised as a residential flat building. Residential flat buildings are permitted with consent in the R4 zone.
Clause 4.1 Minimum lot size	Complies
The site has a minimum lot size of 450m ² .	The proposed consolidation will result in two lots, each exceeding 1,200m².
Clause 4.3 Maximum building height	Complies
The site has a maximum building height of 21m.	The proposal has a maximum building height of approximately 20.5m.
Clause 4.4 Floor space ratio	Complies
Based on LEP mapping, the site has a maximum floor space ratio of 1.5:1.	The proposal is subject to a total maximum FSR of 2:1 (base 1.5:1 shown on LEP mapping + 0.5:1 additional FSR under the ARH SEPP).
	The proposal provides a GFA of 3,224m², which is equivalent to an FSR of 1.92:1.
Clause 5.10 Heritage conservation	NA
The site is not a heritage item, does not adjoin a heritage item and is not within a heritage conservation area.	
Clause 7.14 Minimum building street	Complies
frontage 24m minimum frontage for residential flat buildings.	The site has street frontages of at least 40m. The adjoining proposed Lot 272 will also have a frontage exceeding 24m.

4.7 Liverpool DCP 2008

The table below provides an assessment of the development against key relevant DCP controls.

Table 8. Liverpool I	Table 8. Liverpool DCP 2008 assessment			
Clause	Provision	Compliance		
Part 3.7 Residential Flat B	Buildings			
2. Frontage and site	Minimum lot width of 24m.	Complies		
area		The proposed lot width is 40.5m.		
3. Site Planning				
Site Planning	The building should relate to	Complies		
	the site's topography with minimal earthworks, except for basement car parking.	Earthworks have generally been minimised with exception to the basement carpark.		
	Siting of buildings should be sympathetic to surrounding	Complies		



Table 8. Liverpool	ool DCP 2008 assessment			
	development, taking specific account of the streetscape in terms of scale, bulk, setbacks, materials and visual amenity.	The proposal has been designed to sympathetically address the street, with appropriate setting and articulation reducing potential privacy impacts whilst improving the streetscape presentation.		
		The proposal is considered to align with the desired high density character of the locale.		
	Stormwater from the site must be able to be drained satisfactorily.	Complies A stormwater management plan has been submitted under separate cover.		
	The development will need to satisfy the requirements of State Environmental Planning Policy No 65—Design Quality of Residential Flat Development.	Refer to SEPP 65 discussion See section 4.2 of this report for further discussion.		

4. Setbacks

Front setback	Front Setback	5.5m	Variation proposed
	Secondary Setback	5.5m	Mannix Parade setback On the secondary boundary (Mannix Street), minor corner building elements extend into the setback (maximum breach of approx 700mm). These
			breaches are extremely minor and largely due to the site's irregular shape, which forces the building to step-in along the boundary. The breaches would not cause any significant visual impacts or otherwise adversely affect the streetscape or neighbouring development.
			McGirr Parade setback The McGirr Parade frontage is set back 3m-4m from the boundary. While Council's DCP identifies a consistent 5.5m setback for the primary and secondary front setbacks on corner site, it is considered reasonable for Council to consider a variation in this instance. Refer to further discussion at section 5.1 below.
Side and rear Setbacks	NA		ADG criteria prevails



Table 8. Liverpool	DCP 2008 assessment	
		Refer to section 4.2 of this report for further discussion.
5. Landscaped Area and	d Private Open Space	
Deep soil, landscaped area and private open	NA	ARH SEPP standards and ADO criteria prevails
space		Refer to section 4.1 and section 4.2 of this report for furthe discussion.
6. Building Design, Street	scape and Layout	
Building height,	-	Generally complies
building appearance and streetscape, roof design, building entry, balconies, daylight access, internal design, ground floor dwellings, security, natural ventilation, storage areas		The proposal has been designed generally in accordance with controls in this section. For controls relating to solar access natural ventilation and storage ADG criteria prevails.
7. Landscaping and Fen	cing	
Landscaping, planting	-	Generally complies
on structures, fencing,		The proposal has been desig generally in accordance with the controls in this section. Proposed fencing will not exceed 1.8m in height and not unreasonable impact upon the existing streetscape, ensuring sympathetic colours and materials, ensuring a desirable outcome for the residentic setting.
8. Car Parking and Acce	ess	
Car parking,	-	Generally complies
pedestrian access		The basement car parking and pedestrian access have been designed generally in accordance with the controls in this section
9. Amenity and Environn	nental Impact	1
Overshadowing	Adjoining properties must receive a minimum of 3 hours of sunlight between 9am and 5pm at mid winter to at least one living room or similar and 50% of the private open space	Generally complies Refer to section 6.1 of this report for further discussion



Table 8. Liverpool	DCP 2008 assessment	
Privacy	-	Generally complies
		The proposal has been designed to achieve visible privacy generally in accordance with the controls in this section.
Acoustic impact	-	Generally complies
		The proposal has been designed to minimize acoustic impacts generally in accordance with the controls in this section. Refer to section 6.4 of this report for further discussion on acoustic impacts.
10. Site Services		
Letterboxes	-	Generally complies
		A mail area is provided within the entry lobby generally in accordance with the controls in this section. Additional detail can be provided at CC stage.
Waste management	-	Complies
		Waste storage facilities are provided in accordance with the controls in this section. Refer to section 6.5 of this report for further discussion on waste management.



5 Key Issues

5.1 Front Setback (From McGirr Parade)

The proposed setback from McGirr Parade is a minimum of 3m, which is below DCP's required setback of 5.5m. This setback variation is considered acceptable for the following reasons:

• The setback was increased from 2m to 3m in response to Council pre-lodgement and DEP comments (see sections 1.2 and 1.3 of this SEE, respectively). The proposed 3m setback accords with the DEP's final recommendation, as extracted below:

The panel appreciated that the submission aimed to reduced the setback to the north (from McGirr Parade) to ameliorate overshadowing to the southern blocks, however on balance the Panel recommends increasing the setbacks by 1 metre.

- The variation is part of a deliberate design decision to concentrate mass towards the northern portion of the site in order to minimise overshadowing impacts. The setbacks from the southern boundary are well in excess of ADG minimum requirements, and it is considered that the reduction in overshadowing resulting from this building placement provides a better overall outcome than a setback-compliant scheme.
- The reduced setback would not have any significant streetscape impacts. The site is a corner location with only one other lot within the block along the McGirr Parde frontage (following the proposed consolidation). As such, there is no strongly established 5.5m setback in this portion of the street (existing or future) that the proposed reduced setback would disrupt.
- While Liverpool DCP does not give special consideration to secondary front setbacks at corner sites, it is not uncommon for DCPs and other design documents to allow for a reduced setback along one of the street frontages at corner locations.
- Particular consideration has been afforded in the design to provide adequate deep soil within the northern setback to allow establishment of vegetation, including tree planting.
- Despite the non-compliance, the front setback is consistent with the objectives of part 4 of the DCP (Setbacks) in that it:
 - Allows space for landscaping, open space and solar access (including, in this case, to the area to the south of the site);
 - Provides for adequate visual and acoustic privacy;
 - Establishes a streetscape and enclosure appropriate to the locality and the future character of the locality.



5.2 Development Plans for Lot 272

Council has requested that the applicant provide conceptual details regarding future possible development of the proposed consolidated western lot (Lot 272).

It is considered that a detailed analysis of future development on that lot is not required for the purposes of this DA. Nonetheless, the project architect has developed potential residential flat building massing options for proposed Lot 272 as well as the lot to the south. This massing exercise has demonstrated that the proposed development will not have an unreasonable impact on the adjoining lots' ability to redevelop for the purposes of a residential flat building.

5.3 Footprint

Council officers have expressed concern that the building footprint is overly bulky. We do not agree. The floorplate is compact in design and meets the ADG maximum criteria of eight apartments per floor. The development also exceeds the ADG's minimum deep soil and communal open space requirements, with all communal open space provided at ground level.

5.4 Façade Articulation

Council officers have noted that the development does not promote any horizontal design features and presents as a dominant vertical structure. Furthermore, there is concern that the building does not adequately address the corner location.

In response to these concerns, the brickwork to the facades, windows and ground floor terraces and fences have been further detailed since the pre-DA stage to provide a fine-grain detail to the elevations. In accordance with Liverpool DCP, the overall elevation strategy is aimed at simplicity, with the arrangements of rooms and articulation of the balconies composing the elevation.

6 Environmental Impacts

This section considers the potential environmental impacts resulting from the proposed development. It should be read in conjunction with the various specialist reports submitted with this SEE.

6.1 Overshadowing

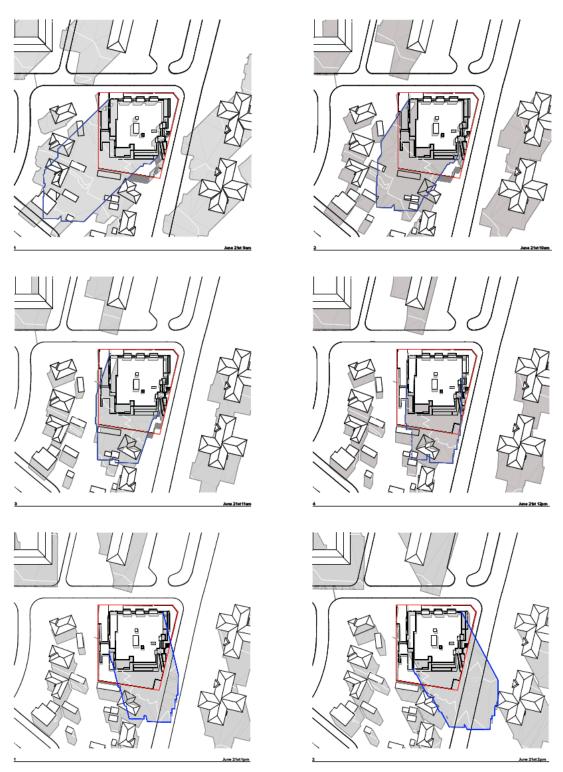
Turner have prepared shadow diagrams to determine the proposal's overshadowing impact on neighbouring properties.

As shown in the mid-winter (21 June) diagrams below, the nearby properties to the southwest will be overshadowed between 9am and 11am, meaning they will receive at least 4 hours of full sunlight (between 11am and 3pm), compared to the 3 hours required by the DCP.

The adjoining property to the south (9 Mannix Parade) receives sunlight to its western façade and rear private open space from 2pm onwards. The location of the dwelling's living room location is unknown. Regardless, the overshadowing impacts overall are reasonable in a high density context. The development has been designed to minimise impacts through a compliant height and the positioning of the building



bulk towards the northern end of the site. These two design measures were explicitly recommended by Council in its pre-DA minutes as a strategy to minimise overshadowing.





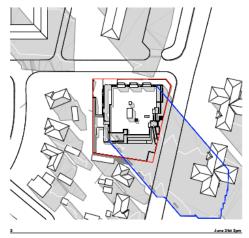


Figure 16: Solar access diagrams, 9am – 3pm

Source: Turner

6.2 Traffic and Parking

A Traffic Impact Assessment prepared by PTC has been submitted under separate cover. Key points from the report are discussed below.

Traffic generation

The proposal is expected to generate the following traffic (based on rates for a typical high density residential development):

AM peak: 9 additional trips (43 dwellings x 0.19 trips per unit)
 PM peak: 7 additional trips (43 dwellings x 0.15 trips per unit)

Traffic impacts on surrounding road network

The traffic report includes an assessment of the proposal's impacts on the operation performance of the nearby road network using the SIDRA program. The SIDRA analysis indicates that the intersections are operating at an acceptable capacity with minor delays experienced. The results show that the proposed development has minor impact on the performance of the intersections as all performance indicators for each intersection increased marginally. Overall, the SIDRA modelling results indicate that the proposal will have a satisfactory to minor impact on nearby intersections, with only marginal increases in delay and queue length. The level of service will remain between "A" (good operation) and "C" (satisfactory) for all intersections.

Parking

The proposal provides for 21 total parking spaces in accordance with ARH SEPP requirements. A breakdown is provided in the table below.

Table 9. Parking breakdown				
Туре	No. of dwelling	Required rate	Required quantity	Provided
1-bedroom	21	0.4 space/dwelling	9 (rounded up)	



Table 9. Parking breakdown					
2-bedroom	22	0.5 space/dwelling	11		
Total			20 (rounded up)	20	

All car spaces are located in the basement. The traffic report assesses the car park arrangement and confirms the proposal meets the requirements of AS2890.1:2004 regarding car space dimensions, aisle width and headroom clearance.

Loading

Waste collection and other loading activity which requires an MRV is proposed to occur on-street. A swept path assessment has been undertaken using a typical MRV to assess the manoeuvrability of the vehicle within the proposed basement level. The assessment indicated that a substantial number of car parking spaces would have to be removed to allow for MRV to manoeuvring. Also, the access ramp grade requirement has also been assessed in accordance with AS2890.2. This has shown that a 31.9m-long ramp needs to be provided. It is noted that the vertical wall-to-wall distance for the proposed development is only approximately 33.4m.

Therefore, due to site limitations, it is proposed that parking for the MRV be provided on-street. Swept path assessment has been undertaken to demonstrate that traffic flow along McGirr Parade can be maintained whilst the MRV is parked on-street with cars parked directly opposite the vehicle.

The proposed location of the 12.5m of kerbside needed for the parking of the waste truck and the rotation and emptying of waste bins has been indicated on the plans. Parking restrictions for the zone would be dependent on Council policy and approximate time of waste collection.

6.3 Stormwater Management

Concept stormwater plans have been prepared and submitted under separate cover. The plans are supported by a Stormwater Management Plan and Stormwater Computions confirming the plans provide for adequate stormwater drainage for the development in accordance with technical and DCP requirements.

The stormwater report addresses the following key issues:

- Integrated Water Management Plan;
- Measures employed to minimise water quality impacts;
- Stormwater plans detailing drainage methods without impacting downstream properties; and
- Identification of flood risk.

A sediment and erosion plan has also been prepared, providing appropriate measures for managing runoff during the construction phase.

6.4 Acoustic and Vibration Impacts

An Acoustic Impact Assessment Report by Wood & Grieve Engineers has been submitted under separate cover. The report assesses potential impacts resulting from:



- Noise intrusion from vehicle movements on McGirr Parade, Mannix Parade and Hume Highway intruding into the proposed development's habitable spaces;
- Noise emissions from mechanical plant; and
- Increased traffic noise generated by the proposed development affecting the surrounding receivers.

The report has provided criteria, in-principle treatment and design requirements which aim to achieve the statutory criteria discussed.

In terms of noise criteria, the following have been provided:

- Noise criteria for internal noise levels according to AS/NZS 2107:2016, provided in Section 5.1 of the acoustic assessment;
- Noise criteria for emissions from the development to receivers in accordance with the NPI and provided in Section 5.2 of the acoustic assessment; and
- Construction noise and vibration criteria provided in Sections 5.4 and 5.5.

Acoustic performance requirements for the façade elements have been provided to achieve internal noise levels in accordance with the requirements of AS/NZS2107:2016. These requirements are based on the noise monitoring conducted on the site installed from 20th March to the 27th March 2020. The preliminary glazing performance requirements are presented in Section 6.1 of the report.

The maximum sound power levels for the mechanical services presented in the report for the day, evening and night time are based off the project noise trigger noise levels established in Section 5.2.3. Should the plant sound power levels exceed the levels presented in this report additional noise mitigation measures will be required. These measures will be developed and implemented during the design stages of the project.

Overall, the proposal is considered to satisfy the relevant standards with respect to acoustic treatment and mitigation. The acoustic impacts associated with the use of the building, as well as traffic generation along surrounding streets, including the Hume Highway, can be satisfactorily addressed through the implementation of measures identified in the acoustic assessment.

6.5 Operational Waste Management

An Operational Waste Management Plan by Waste Audit has been submitted under separate cover. Key items from the report are outlined below.

Waste storage and collection (operation phase)

Based on a total of 43 dwellings, a total of eight 660L waste bins and eight 660L recycling bins are to be provided to accommodate the projected demand. These bins will be stored in the waste storage area located at the ground level. The site manager will oversee the area and ensure efficient waste management.

The proposed 44sqm waste storage area has been designed in accordance with the LDCP standards and includes an 8sqm bulky goods storage area.

A waste chute system is not proposed given LAHC's understanding of potential operational and maintenance issues associated with their residents. Despite not having a chute, the proposed waste management are measures consistent with the relevant objective of Part 1, section 25 (Waste) of the DCP, which is "To ensure waste



management for the end use of the development is designed to provide satisfactory amenity for occupants and provide appropriately designed collection systems". The proposal has two lifts, which is in excess of the ADG recommendations of two lifts for buildings greater than 9 storeys. Accordingly, it is expected that that residents would not experience undue inconvenience in disposing of waste.

A waste service room on each level has not been provided due to maintenance costs. The waste storage area has been purposely located at ground floor level, adjacent to the lobby entry and lifts to enable convenient access by residents.

Collection will occur once per week, with site staff to wheel bins from the waste storage area to the kerbside collection area for Council to collect. Site staff will then wheel the bins back to the waste storage area.

6.6 BCA

A BCA assessment report Design Confidence has been submitted under separate cover. The report has been prepared to identify the extent to which the architectural design documentation complies with the relevant prescriptive provisions of the Building Code of Australia (BCA).

The report notes that compliance could be achieved via a mixture of performance-based approach and deemed-to-satisfy approach. Compliance via the performance-based approach could occur without significant redesign.

The report concludes that the proposal is capable of complying with the relevant provisions of the BCA, with the minor specific elements that will need further review as the project develops.

6.7 Accessibility

An accessibility assessment by Morris Goding Access Consulting has been submitted under separate cover. The assessment has analysed the provisions of disability design of the development and recommends solutions to ensure compliance with the Disability Discrimination Act (DDA), Building Code of Australia (BCA) and relevant Australian Standards.

The report has considered the following elements of design:

- Ingress and Egress:
- Paths of Travel;
- Amenities and Facilities;
- Project Specific Requirements;
- Adaptable Units; and
- Liveable Housing.

The assessment shows that the proposal can readily achieve access requirements under the applicable standards, subject to implementation of the recommendations in their report (to be carried out during the detailed design phase).



6.8 Geotechnical

A geotechnical report by STS Geotechnics has been submitted under separate cover. The report presents the results of the geotechnical investigation undertaken on the site.

Under AS2870, the site has been classified as a 'problem site' due to the prevalence of abnormal moisture conditions. STS concludes, however, that provided the recommendations given in the report are adopted, the site can be classified as 'Highly Reactive'.

The report has identified no significant geotechnical constraints that would inhibit construction of the proposal.

6.9 Social Impact Comment

A social impact comment is provided below, prepared in accordance with the template at Appendix A of Council's Social Impact Assessment Policy (2015).

Population change

Will the development result in significant change/s to the local area's population (either permanently and/or temporarily)?

<u>Comment:</u> The proposal will increase housing stock within Liverpool by 38 net additional residential dwellings (accounting for the loss of 5 existing dwellings) or 76 persons, assuming an average occupancy rate of 2 persons per 1- and 2-bedroom dwelling.

The increase in population and demand will be catered for via imposition of section 7.11 contributions for infrastructure.

The proposal is consistent with the vision for high density development by Council by virtue of the site's R4 Zoning, and the density achieved on the site is consistent with that envisaged by the planning controls.

Describe your proposed mitigations of negative impacts or enhancements of positive impact below

<u>Comment:</u> Payment of section 7.11 contributions will cater for the additional demand resulting from the proposal. Compliance with density controls applying to development to ensure that planned densities are maintained.

Housing

Will the proposal increase or reduce the quantity, quality, mix, accessibility and/or affordability of housing?

<u>Comment:</u> The proposal will enhance and increase dwelling diversity and housing mix by providing 38 net additional dwellings within the locality, all for the purposes of affordable housing.

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below.



<u>Comment:</u> The proposal is designed to provide a variety of dwelling sizes to meet the affordable housing needs of the community—particularly new housing stock, which is often lacking for those on lower incomes.

Accessibility

Will the development improve or reduce physical access to and from places, spaces and transport?

<u>Comment:</u> The proposal will have no notable impact on physical access to and from places, spaces and transport.

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below

<u>Comment:</u> The proposal will not disrupt existing movement of traffic and is within 450m walking of Warwick Farm Station, meeting the required level of service under the Affordable Housing SEPP. The site is accessible from Mannix Parade and McGirr Parade, with equitable access provided into the proposed development.

Community and Recreation Services/Facilities

Will the development increase, decrease or change the demand or need for community, cultural and recreation services and facilities?

<u>Comment:</u> The increase in local population will increase demand by a minor amount; however, there is a section 7.11 plan in place to provide for the community, cultural and recreation needs of the population. Furthermore, there are community and recreation opportunities within close proximity to the subject site including Hargrave Park, Berryman Reserve, Hart Park and the Liverpool Neighbourhood Connections (LNC) (not-for-profit community centre).

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below.

<u>Comment:</u> Provision of adequate private open space areas on site and commitment to paying section 7.11 contributions.

Cultural and community significance

There may be certain places, items or qualities that are culturally valuable or significant to the community. They provide significant meanings and reference points for individuals and groups. This may include specific sites of Aboriginal significance. The acknowledgement and protection of these places, items or qualities is a key element in building strong and resilient communities.

<u>Comment:</u> The proposal is for a residential development, and there will be no likely impact on cultural values/beliefs, noting that there are no heritage restrictions on the site or within its immediate vicinity.

Community, identity and sense of belonging



Social cohesion and integration requires places and spaces for informal and safe social interaction. Developments can increase or decrease these interaction opportunities through their provision (or otherwise) of safe and connected pathways and linages and attractive gathering places (town centres, parks, squares / plazas civic spaces and streets)

<u>Comment:</u> Limited change given the nature of the proposal. However, the proposal encourages interaction with the communal spaces on site. Appropriate connections are provided to the street frontages.

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below

<u>Comment:</u> Appropriate linkages to street and appropriate communal areas will encourage social interaction. LAHC (or contractor) will manage common areas to give a sense of ownership.

Health and well-being

Will the development strengthen or threaten opportunities for health lifestyles, healthy pursuits, physical activity and other forms of leisure activity?

<u>Comment:</u> Yes, the site is located in close proximity to public transport, encourages alternative modes of transport such as walking/cycling. Furthermore, the proposal is within close proximity to public reserves (Hargrave Park, Berryman Reserve and Hart Park).

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below

<u>Comment:</u> The proposal provides for appropriate bicycle storage facilities and easy pedestrian access to and from the site.

Crime and safety

Will the development increase or reduce public safety and opportunities for crime (perceived or actual crime)?

<u>Comment:</u> The proposal will reduce potential for crime given the passive surveillance from balconies facing Mannix Parade and McGirr Parade. The passive surveillance from the residential units will provide on the street, which will contribute towards deterring potential criminal activities. Refer to the CPTED principles detailed within the design report.

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below.

<u>Comment:</u> The proposal has been designed to reduce opportunities for crime. Refer to the CPTED principles detailed within the design report.

Local economy and employment opportunities

Will the development increase or reduce the quantity and/or diversity of local employment opportunities (temporary or permanent)?



<u>Comment:</u> The proposal will provide for a short term increase in employment during construction. Additionally, new residents in the area will increase patronage in the locality and contribute towards boosting the local economy of Warwick Farm.

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below

Comment: Nil.

Needs of specific population groups

Will the development increase or decrease inclusive opportunities (social, cultural, recreational, employment, governance) for groups in the community with special needs?

<u>Comment:</u> The proposal will increase inclusive opportunities by providing for adaptable dwellings and equitable access throughout the development.

Describe your proposed mitigations of negative impacts or enhancements of positive impacts below

<u>Comment:</u> Ensure compliance with Liverpool DCP and Australian Standards in terms of accessibility requirements. For further detail refer to the accessibility report submitted under separate cover.

6.10 Tree Removal

The proposal includes removal of 2 trees:

- Melia Azedarach (white cedar): 6m height, low significance, "remove" retention value, located at the southwest corner of the site;
- Melia azedarach (white cedar): 5m height, low significance, low retention value, located along the northern boundary of the site.

This removal is considered acceptable as the trees are of low significance and have low or no retention value. The trees will be replace by multiple advanced specimens as shown on the submitted landscape plans.



7 Conclusion

This SEE has provided an assessment of proposed affordable housing development in terms of the matters for consideration under Section 4.15 of the EP&A Act. A summary assessment against Section 4.15 is provided in the table below.

Table 10. Section 4.15 summary assessment				
Clause No.	Clause	Assessment		
(1)	Matters for consideration—general In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application:			
(a)(i)	The provision of: Any environmental planning instrument, and	This SEE has considered and provided an assessment against the relevant environmental planning instruments, including SEPP 55, BASIX SEPP, ARH SEPP and Liverpool LEP 2008. It has been shown that the proposed development is generally compliant with the provisions of these instruments.		
(ii)	Any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and	No draft instrument applies to the development.		
(iii)	Any development control plan, and	This SEE has considered the controls of Liverpool DCP 2008, and it has been shown that the application generally complies with the key relevant controls, with sufficient justification provided for any variation.		
(iiia)	Any planning agreement that has been entered into under Section 7.4, or any draft planning agreement that a developer has offered to enter into under Section 7.4, and	Not applicable.		
(iv)	The regulations (to the extent that they prescribe matters for the purposes of this paragraph), and	The proposal is consistent with the regulations applying to development applications.		
(v)	Any coastal zone management plan (within the meaning of the Coastal Protection Act 1979), that apply to the land to which	Not applicable.		



Table 10. Section 4.15 summary assessment					
Clause No.	Clause	Assessment			
	the development application relates,				
(b)	The likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,	The likely impacts of the development on the built and natural environments have been considered within this SEE. The proposed development has been shown to result in minor and acceptable impacts.			
(c)	The suitability of the site for the development,	The development is generally consistent with the relevant SEPPs, LEP and DCP provisions and has no unacceptable adverse environmental impacts. The site is therefore considered suitable for the development.			
(d)	Any submissions made in accordance with this Act or the regulations,	This is a matter for to be addressed following the notification of the application.			
(e)	The public interest.	 The proposal is in the public interest as: Provides for essential affordable housing in an accessible area; The environmental impacts have been considered and have been shown to be minor and acceptable subject to mitigation; and The proposal generally complies with applicable EPIs. 			

Given the development's compliance with key controls and lack of unacceptable adverse environmental impacts, we recommend that the development be granted approval.

