Development Application

12 Multiple Dwellings

Lot 727 (No. 48) Moore Street, Port Hedland

Prepared by:

RPS AUSTRALIA EAST PTY LTD

PO Box 465
Subiaco WA 6904

T: +61 08 9211 1111
F: +61 08 9211 1122
E: planning@rpsgroup.com.au

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AUSTRALIAN BLUEWATER DEVELOPMENTS PTY LTD

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1.0 Introduction

RPS has been appointed by Australian Bluewater Developments Pty Ltd to prepare and submit a development application for consideration by the Town of Port Hedland. The application seeks approval for the development of 12 multiple dwelling units on Lot 727 (48) Moore Street, Port Hedland (the "subject site").

"Multiple Dwellings" are an "AA" discretionary use within the "West End Residential" zone. Accordingly, an application for Planning Approval is required under the Town of Port Hedland Town Planning Scheme No. 5.

Port Hedland is still experiencing a shortage of accommodation for both long term residents and key workers, which is recognised as a major constraint affecting the growth of the Town. The proposed development will therefore assist in meeting the housing and accommodation shortages currently being experience throughout the region.

The proposal has been assessed against the relevant provisions of Town Planning Scheme No. 5 and the Residential Design Codes 2013 (R-Codes). The following report sets out the details of the proposed development and the manner in which it complies with the Deemed to Comply Provisions and the Design Principles of the R-Codes where variations have been sought.

The proposed development plans (**Appendix B**) have been prepared by a building designer (Ramm's Building Design) and include floor plans, a site plan, elevations, landscape plan, plot ratio calculations and additional plans to identify indicative streetscape appearance.

2.0 Subject Site

2.1 Location and Site Description

The subject site has a total land area of 957m² and is located on the southern side of Moore Street in the locality of Port Hedland. The site currently contains a single residential dwelling with associated driveway, outbuilding and hardstand areas (refer **Figure 1** – Location Plan and **Figure 2** – Aerial Plan).

The subject site has a 28.2m frontage to Moore Street.

2.2 Land Particulars

The subject land is formally described as Lot 727 on Deposited Plan 209879, being the whole of the land contained on Volume 2049, Folio 7 (refer **Appendix A**: Certificate of Title & Deposited Plan).

2.3 Surrounding Land Use and Development

The subject site is located within an established area of Port Hedland with surrounding land use typically characterised by low density housing. However, a number of similar multiple dwelling developments (both established and under construction) also existing in close proximity to the site.

The subject site is located 2.5 kilometres east of the Port Hedland town centre where there are a number of community, recreational and commercial / retail uses. The subject site gains access to the broader Port Hedland street network via Anderson Street to the south.

The subject site is within close proximity to the West End coastal foreshore area.

3.0 Town Planning Framework

3.1 Pilbara Port City Growth Plan

Pilbara's Port City Growth Plan (the 'Growth Plan') provides a strategic blueprint for the sustained growth of Port Hedland as it continues its evolution into a city of 50,000 residents.

Spatially, the Growth Plan identifies 16 Growth Precincts, broadly setting out how land should be used and developed. The subject site is located within "Precinct 1 – West End". The Growth Plan statement for Precinct 1 is as follows:

"The West End is the Port City's soul – perhaps like Fremantle to Perth it is a unique and interesting place. It supports the growing port activity, yet remains people friendly and accessible. It is busy with day time workers, many of whom leave their offices to enjoy lunch in outdoor cafes and bars. As evening arrives the West End transforms into a place popular with tourists observing Australia's largest tonnage port and our coastline, while travelling professionals and the wider city population enjoy the many cultural, dining and entertainment activities."

The Precinct Plan summary also suggests that the activities and land use in this area may include limited residential development, consistent with the provisions introduced by Town Planning Scheme Amendment No. 22. Accordingly, the proposed development is therefore consistent with the Growth Plan's strategic intent.

3.2 Town of Port Hedland Town Planning Scheme No. 5

The Town of Port Hedland Town Planning Scheme No. 5 (TPS 5) is the operative zoning scheme for Port Hedland. The subject site is zoned "West End Residential": under TPS 5. This zoning has a split R30/80 code under the R-Codes. TPS 5 states the following with regard to land zoned "West End Residential":

"6.3.8 The purpose of the West End Residential Zone is to establish a residential zone in which dwellings are designed and constructed in such a way as to discourage occupation by families with children or by elderly persons.

6.3.9 Residential development within the West End Residential Zone and within the area bounded by Withnell, McKay and Anderson Streets, and The Esplanade, Port Hedland shall be in accordance with a local planning policy, development plan or design guideline adopted by Council that incorporates building design and performance standards to reduce exposure to dust, and to include but not necessarily be limited to-

- *filtration of incoming air into the building designed to utilise coarse disposable pre-filtration (i.e. G3 or G4 rated) and then a finer filter (i.e. F4 rated);*
- *location of operable windows and doors on the western and southern building facades only;*
- *use of deflection screens on the northern and eastern edges of operable windows;*
- *use of eaves;*
- *orienting buildings to avoid wind tunnelling effects; and*
- *protective screens and porticos at building entrances to reduce the direct impact of wind onto the opening.*

6.3.10 Notwithstanding anything contained within the Residential Design Codes, all residential development in the West End Residential Zone shall comply with the following-

(a) Residential development must be between a minimum yield equivalent to the R30 density and a maximum yield equivalent to the R80 density for all land and/or any individual lot included within an application for planning approval.

{b) The maximum internal floor area for all dwellings is 110m^2.

(c) No dwelling shall have greater than two (2) bedrooms or rooms capable of being used as bedrooms.

6.3.11 When considering an application for planning approval within the West End Residential Zone, Council shall consider the purpose of the zone and recommendations of any formal risk study undertaken by or endorsed by the Department of Health.

6.3.12 Notwithstanding Clause 6.1.1 of the Residential Design Codes of Western Australia 2008, Council shall not recommend approval for the creation of lots that are less than 600m^2 unless the lots are already developed or it is demonstrated that the lots may be developed for grouped or multiple dwellings.

An assessment of the proposed development against the provisions of TPS 5 is provided at section 5.0 of this report.

3.3 Residential Design Codes

The proposed development has been designed in accordance with the development standards applicable to the R80 coding, as per Part 6 of the R-Codes for Multiple Dwellings. An assessment of the proposed development against the provisions of Part 6 of the R-Codes is provided at section 5.0 of this report for those Design Elements that have been assessed against the Deemed to Comply and Design Principles.

3.4 Local Planning Policies

Local Planning Policy No. 11 (LPP11) - Regional R-Code Variations provides variances to the 'Acceptable Development Standards' of the R-Codes. However, under the current adopted Local Planning Policy there are no variations relevant to multiple unit dwelling development proposals (i.e. under Part 6 of the R-Codes). LPP11 includes criteria relating to the minimum dwelling size / unit mix for multiple dwelling developments, however, this is not relevant for land that is located within the West End Residential zone.

4.0 Proposed Development

This application seeks approval for a multiple dwelling development featuring a total of twelve (12) two bedroom units in four (4), four-storey buildings.

The development has a maximum building height of approximately 14.6m above natural ground level.

Concurrent with this application, a proposed 4-lot freehold subdivision application has been lodged with the Western Australian Planning Commission for approval. The design of the subdivision is based on the proposed multiple dwelling development, ensuring a coordinated subdivision and development outcome.

The development addresses the Moore Street frontage whilst also providing passive surveillance from the proposed units over the street. Due consideration has also been given to the design and performance requirements to demonstrate a reduction in exposure to dust issues. Landscaping will also be used in the front setback area to support the relationship between the proposed development and the adjoining natural environment.

The development is served by a central vehicular access way, providing access to the ground-floor parking areas and entrances. Also located on the ground floor are the individual storerooms and bicycle parking areas. Bin storage and clothes drying areas are all located on the ground floor.

The proposed units each have an identical plot ratio area of 80.2m² and balcony areas of 14m².

The floor layout for each two bedroom unit contains two ensuite bathrooms and an open plan kitchen/ laundry/ living/ dining area, which opens to the balcony.

Landscaped areas will include the Moore Street frontages and the side and rear setbacks of the development. The visitor parking areas proposed within the verge area will also be landscaped to soften the appearance of the hard surfaces and complement the built form.

To assist with the Town's consideration of the proposal, the following architectural plans are enclosed as **Appendix B**.

- Site survey, site plan (incl. landscaping details);
- Proposed floor plans for each level;
- Proposed elevations from each direction and street perspective;

Building materials to be used for the proposed development are annotated on the enclosed plans.

5.0 Compliance Assessment

5.1 Town of Port Hedland Town Planning Scheme No. 5

An assessment of the proposed development against the relevant provisions of TPS 5 has been undertaken. The proposal has sought to include measures, such as those listed in Clause 6.3.9 to TPS 5, to minimise the potential impact of dust on future inhabitants of the building.

Assessment of the proposed development against Clause 6.3.10 of TPS 5 is summarised in the below table:

Table 1: TPS 5 Compliance Statement

Development Requirement (Cl. 6.3.10 of TPS 5)	Proposed	Comment / Compliance
Minimum R30 / Maximum R80 density	Density = R80	Complies
Maximum internal floor area for all dwellings is 110m²	Max floor area = 80.2m²	Complies
No dwelling shall have greater than 2 bedrooms or rooms being capable of being used as bedrooms	No. of bedrooms = 2	Complies

In addition to the above, Clause 6.3.7 of TPS 5 requires every dwelling to be provided with a store room of not less than 4m², must be fully enclosed and have direct ground level access from outside the building with no direct internal access from the dwelling. The proposed store rooms are all located on the ground floor and comply with the minimum size requirements. Access from ground level provides convenient access to all future residents.

Also, Clause 6.3.11 of TPS 5 states that Council shall not recommend approval for the creation of lots that area less than 600m² unless the lots are already developed or it is demonstrated that the lots may be developed for grouped or multiple dwellings. The concurrent subdivision application, which proposes the creation of four green-title lots below 600m², along with the information contained in this report, demonstrates that the lots, despite being below the minimum requirement outlined in Clause 6.3.11, can be developed for multiple dwellings. The support of Council is therefore sought in this regard.

5.2 R-Code Assessment

The proposed multiple-unit dwelling development has been assessed against the Deemed to Comply and Design Principles provisions of Part 6 of the R-Codes, including:

- 6.1 Context
- 6.2 Streetscape
- 6.3 Site planning and design
- 6.4 Building design

To assist Council's assessment of the application, a checklist has been provided to support the assessment of the above R-Code Design Elements is below.

5.2.1 Design Discussion and Justification

Following assessment of the proposal against the relevant provisions of the R-Codes, there are a number of design elements that do not strictly comply with the 'Deemed to Comply' provisions of the R-Codes. However, the proposed variations detailed below are considered minor and are consistent with the Design Principles of the relevant Design Elements.

Table 2 R-Code Part 6 Compliance Statement

DESIGN ELEMENTS FOR MULTIPLE DWELLINGS IN AREAS CODED R30 OR GREATER				
Part 6 Requirements		**Deemed-to-Comply**	**Provided**	**Compliance (Y/N)**
6.1 CONTEXT OF DEVELOPMENT				
6.1.1 BUILDING SIZE	Development Complies with the maximum **plot ratio** requirements set out in Table 4.	957m^2	957m^2	Y
6.1.2 BUILDING HEIGHT	**Development** complies with the maximum height set out in Table 4, except where stated otherwise in the scheme, relevant local planning policy, local structure plan or local development plan (refer Figure Series 7).	Wall 12m Roof 15m	12m 14.6m	Y Y
6.1.3 STREET SETBACK	Development complies with the minimum setback from the primary and secondary street(s) in accordance with Table 4.	Primary 2m	2.3	Y
	Balconies located entirely within the property boundary.	Within property boundaries	Entirely within property boundaries	Y
6.1.4 LOT BOUNDARY SETBACKS	In areas coded R30–R60, the development complies with minimum lot boundary setback requirements as set out in Tables 2a and 2b. Subject to any additional measures in other elements of the R-codes (refer to Figure Series 3 and 4).	N/A	N/A	N/A
	In areas coded R80–R160 and/or R-AC, the development complies with minimum lot boundary setback requirements as set out in Table 5 subject to any additional measures in other elements of the R-Codes; and if applicable:	4m	Approx. 1.5 to all side boundaries	N – see Design Criteria comments
	• The wall has a zero setback where it abuts an existing or simultaneously constructed wall of equal or greater proportions; or			N/A
	• A wall built to one side boundary has a maximum height and average height as set out in Table 4 and a maximum length of two-thirds the length of this boundary.			N/A
	Separate multiple dwellings facing multiple dwellings on the same site, are to be set back from each other as though there were a boundary between them.	4m	Approx. 3m between each multiple dwelling	N – see Design Criteria comments
	Design Criteria comment The proposed variation to the lot boundary setbacks are considered to meet the design criteria as: • Through the separation of buildings on site, the visual impact of building bulk on a neighbouring property is moderated; • Access to daylight and direct sun for adjoining properties is maintained; and • Through the design and position of major openings, the development assists with the protection of privacy between adjoining properties.			
6.1.5 OPEN SPACE	Development complies with minimum open space set out in Table 4 (refer to Figure Series 6).	Minimum N/A	N/A	N/A
6.2 STREETSCAPE				
6.2.1 STREET SURVEILLANCE	The street elevation(s) of the building to address the street, with facades generally parallel to the street and with clearly definable entry points visible and accessed from the street.			Y
	The building has habitable room windows or balconies that face the street.			Y
	Basement parking structures between a street frontage			N/A

DESIGN ELEMENTS FOR MULTIPLE DWELLINGS IN AREAS CODED R30 OR GREATER				
Part 6 Requirements		**Deemed-to-Comply**	**Provided**	**Compliance (Y/N)**
	and the main front elevation are no more than 1m above natural ground level at any point.			
6.2.2 STREET WALLS AND FENCES	Front fences within the primary street setback area that are visually permeable to 1.2m above natural ground level.		N/A	N/A
6.2.3 SIGHT LINES	Walls, fences and other structures truncated or reduced to no higher than 0.75m within 1.5m of where walls, fences, other structures adjoin vehicle access points where a driveway meets a public street and where two streets intersect(refer to Figure Series 9).		N/A	N/A
6.2.4 BUILDING APPEARANCE	Buildings that comply with the provisions of a special control area, with the provisions of a local planning policy made under the scheme or with the provisions of the scheme, in respect of the design of carports and garages, the colour, scale, materials and roof pitch of buildings including outbuildings, the form and materials of retaining walls and the extent to which the upper levels of buildings as viewed from the street should be limited.			Y
6.3 SITE PLANNING AND DESIGN				
6.3.1 OUTDOOR LIVING AREAS	Each unit is to be provided with at least one balcony or equivalent accessed directly from a habitable room with a minimum area of 10m2 and a minimum dimension of 2.4m.	Area 10m² Dimension min. 2.4m	14m² 2.0m	Y N – minor variation
6.3.2 LANDSCAPING	Landscaping of open spaces in accordance with the following:			
	• The street setback areas developed without car parking, except for visitors' bays, and with a maximum of 50 per cent hard surface;	Hard Surface		Y
	• Separate pedestrian paths providing wheelchair accessibility connecting all entries to buildings with the public footpath and car parking areas;			Y
	• Landscaping between each six consecutive external car parking spaces to include shade trees;			N/A
	• Lighting provided to pathways, and communal open space and car-parking areas; and			TBA at time of Building Permit
	• Clear sight lines at pedestrian and vehicle crossings.			Y
6.3.3 PARKING	The following minimum number of on-site car parking spaces is provided per dwelling:			
	Location A (within 800m of train station or high frequency rail route of within 250m of a high frequency bus route): • Small (<75m^2 or 1 bedroom)- 0.75 car parking space • Medium (75-110m^2)- 1 car parking space • Large (>110m^2)- 1.25 car parking spaces • Visitors car parking spaces (per dwelling)- 0.25 car parking spaces			N/A
	Location B (not within the distances outlined in A) • Small (<75m2 or 1 bedroom)- 1 car parking space • Medium (75-110m2)- 1.25 car parking space • Large (>110m2)- 1.5 car parking spaces • Visitors car parking spaces (per dwelling)- 0.25 car parking spaces	Resident Bays 15 Visitor Bays 3	Resident Bays 16 Visitor Bays 3	Y
	In addition to the above, one bicycle space to each three dwellings for residents; and one bicycle space to each ten dwellings for visitors, designed in accordance with AS2890.3 (as amended).		Bicycle parking areas notated on plans	Y

DESIGN ELEMENTS FOR MULTIPLE DWELLINGS IN AREAS CODED R30 OR GREATER				
Part 6 Requirements		**Deemed-to-Comply**	**Provided**	**Compliance (Y/N)**
6.3.4 DESIGN OF CAR PARKING SPACES	Car parking spaces and maneuvering areas designed and provided in accordance with AS2890.1 (as amended).			Y - Also meets Town requirements
	Visitor car parking spaces:			
	• Marked and clearly signposted as dedicated for visitor use only, and located close to or visible from the point of entry to the development and outside any security barrier; and			Y
	• Provide an accessible path of travel for people with disabilities.			Y
	Car parking areas comprising six or more spaces provided with landscaping between each six consecutive external car parking spaces to include shade trees.			N/A
	All car parking spaces except visitors' car parking spaces fully concealed from the street or public place.			Y
6.3.5 VEHICULAR ACCESS	Vehicle access is limited to one opening per 20m street frontage that is visible from the street.			Y
	Access to on-site car parking spaces to be provided:			
	• Where available from a right-of-way available for the lawful use to access the relevant lot and which is adequately paved and drained from the property boundary to a constructed street;			N/A
	• From a secondary street where a right-of-way does not exist; or			N/A
	• From the primary street frontage where no secondary street or right-of way exists.			Y
	Driveways designed for two way access to allow for vehicles to enter the street in forward gear where:			
	• The driveway serves five or more dwellings;			Y
	• The distance from a car space to street alignment is 15m or more; or			N/A
	• The public street to which it connects is designated as a primary distributor, district distributor or integrated arterial road.			N/A
	Driveways to be adequately paved and drained.			Y
6.3.6 SITE WORKS	Excavation or filling between the street and building, or within 3m of the street alignment, whichever is the lesser, shall not exceed 0.5m, except where necessary to provide for pedestrian or vehicle access, drainage works or natural light for a dwelling.			N
	Excavation or filling within a site and behind a street setback line limited by compliance with building height limits and building setback requirements.			Y
	Subject to point 2, all excavation or filling behind a street setback line and within 1m of a lot boundary shall not be more than 0.5m above the natural ground level at the lot boundary except where otherwise stated in a local planning policy or local development plan.			Excavation Filling
	Design Criteria comment • The proposed retaining walls have been designed to have as minimal effect on the adjoining properties in regard to bulk and scale • The proposed height and location of the retaining walls are necessary in order to prevent overlooking to the neighbouring properties and to ensure that stormwater can be managed appropriately.			

DESIGN ELEMENTS FOR MULTIPLE DWELLINGS IN AREAS CODED R30 OR GREATER				
Part 6 Requirements		**Deemed-to-Comply**	**Provided**	**Compliance (Y/N)**
6.3.7 RETAINING WALLS	Where a retaining wall less than 0.5m high is required on a lot boundary, it may be located up to the lot boundary subject to the provisions of clauses 6.1.4 and 6.4.1, or within 1m of the lot boundary to allow for an area assigned to landscaping subject to clauses 6.3.6 and 6.4.1.			N
	Design Criteria comment • See comment on 6.3.6 above			
6.3.8 STORMWATER MANAGEMENT	All water draining from roofs, driveways, communal streets and other impermeable surfaces shall be directed to garden areas, sumps or rainwater tanks within the development site where climatic and soil conditions allow for the effective retention of stormwater on-site.			Y
6.4 BUILDING DESIGN				
6.4.1 VISUAL PRIVACY	Major openings and unenclosed outdoor active habitable spaces, which have a floor level of more than 0.5m above natural ground level and overlook any part of any other residential property behind its street setback line are:			
	• Set back, in direct line of sight within the cone of vision, from the lot boundary, a minimum distance as prescribed below:			
	Setback for areas coded R50 or lower • **4.5m** in the case of major opening to bedrooms and studies; • **6m** in the case of major openings to habitable rooms other than bedrooms and studies; • **7.5m** in the case of unenclosed outdoor active habitable spaces.			N/A
	Setback for areas coded higher than R50 • 3m in the case of major openings to bedrooms and studies; • 4.5m in the case of major openings to habitable rooms other than bedrooms and studies; • 6m in the case of unenclosed outdoor active habitable spaces.			Y - Screened
	• Or are provided with permanent screening to restrict views within the cone of vision from any major opening or an unenclosed outdoor active habitable space.			Y
	Screening devices such as obscure glazing, timber screens, external blinds, window hoods and shutters are to be at least 1.6m in height, at least 75 percent obscure, permanently fixed, made of durable material and restrict view in the direction of overlooking into any adjoining property.			Y - Screened
6.4.2 SOLAR ACCESS FOR ADJOINING SITES	Development in climatic zones 4, 5 and 6 of the State shall be so designed that its shadow cast at midday, 21 June onto any other adjoining property does not exceed the following limits:			
	• On adjoining properties coded R25 and lower – 25 per cent of the site area;			N/A
	• On adjoining properties coded R30 to R40 inclusive – 35 per cent of the site area;			N/A
	• On adjoining properties coded R50 to R60 inclusive – 50 per cent of the site area.		223m² / 23.8%	Y
	Where a development site shares its southern boundary with a lot, and that lot is bound to the north by another lot(s), the limit of shading for the development site set out in clause 6.4.2 C2.1 shall be reduced proportionate to the			N/A

DESIGN ELEMENTS FOR MULTIPLE DWELLINGS IN AREAS CODED R30 OR GREATER				
Part 6 Requirements		**Deemed-to-Comply**	**Provided**	**Compliance (Y/N)**
	percentage of the affected property's northern boundary that the development site abuts (refer figure 11b).			
6.4.3 DWELLING SIZE	Development that contains more than **12** dwellings are to provide diversity in unit types and sizes as follows:			
	• Minimum 20 per cent 1 bedroom dwellings, up to a maximum of 50 per cent of the development; and			N/A
	• Minimum of 40 per cent 2 bedroom dwellings;			N/A
	• The development does not contain any dwellings smaller than 40m^2 plot ratio area.			Y
6.4.4 OUTBUILDINGS	Outbuildings that:			
	• Are not attached to a dwelling;			Y - Stores only
	• Are non-habitable;			Y - Stores only
	• Do not exceed 60m^2 in area or 10 per cent in aggregate of the site area, whichever is the lesser;			Y
	• Do not exceed a wall height of 2.4m;			Y
	• Do not exceed ridge height of 4.2m;			Y
	• Are not within the primary or secondary street setback area;			Y
	• Do not result in the non-compliance with open space set out in Table 4; and			Y
	• Are set back in accordance with Tables 2a, 2b and Figure Series 3.			Y
6.4.5 EXTERNAL FIXTURES	Solar collectors installed on the roof or other parts of buildings.			N/A
	Television aerials of the standard type, essential plumbing vent pipes above the roof line and external roof water down pipes.			Y
	Other external fixtures provided they are:			
	• Not visible from the primary street;			Y
	• Are designed to integrate with the building; or			N/A
	• Are located so as not to be visually obtrusive.			Y
	Antennae, satellite dishes and the like not visible from the street.			Y
6.4.6 UTILITIES AND FACILITIES	An enclosed, lockable storage area, constructed in a design and material matching the building/dwelling where visible from the street, accessible from outside the dwelling, with a minimum dimension of 1.5m and an internal area of at least 4m^2 shall be provided for each multiple dwelling.			Y
	Where rubbish bins are not collected from the street immediately adjoining a dwelling, there shall be provision of a communal pick-up area or areas which are:			
	• Conveniently located for rubbish and recycling pick-up;			Y
	• Accessible to residents;			Y
	• Adequate in area to store all rubbish bins; and			Y
	• Fully screened from view from the primary or secondary street (incl. clothes drying areas).			Y

The proposed development is consistent and permissible under the provisions of TPS 5. The proposal is justified for the following reasons;

- The proposed development is consistent with the Scheme provisions of the Town of Port Hedland TPS 5;
- The proposed development is consistent with he intent and relative objectives of the West End Residential zone;
- The proposed development will not adversely affect the amenity of the surrounding land and is consistent with the existing and emerging setting.

5.2.2 Dust Management

As required by the Town of Port Hedland, the applicant has commissioned consulting engineers, Norman Disney Young, to undertake a report to outline a range of mechanisms to reduce exposure to dust and the preferred location of dust protection measures on the proposed building. The findings and recommendations of the report are enclosed as **Appendix C**.

5.2.3 Waste Management

As required by the Town of Port Hedland, the applicant has considered options for waste management for the proposed multi-unit residential development. The Waste Management Statement has been developed in accordance with *Town of Port Headland Information Sheet 7 – Waste Management Statements & Assessment*, as well as all other relevant legislation and best practice guidelines. The findings and recommendations of the report are enclosed as **Appendix D**.

5.2.4 Traffic Statement

As required by the Town of Port Hedland, the applicant has outlined considerations associated with a traffic statement to support the proposed development. The traffic assessment has revealed that that the proposed development would not introduce any significant traffic impacts that would preclude its approval by Council. A copy of the Traffic Statement is enclosed at **Appendix E**.

6.0 Conclusion

This application seeks approval for the development of a multiple dwelling development comprising a total of twelve units.

The application has demonstrated the manner in which the proposed development complies with the provisions of the Town of Port Hedland TPS 5, relevant Local Planning Policies, the 'Deemed to Comply' and 'Design Criteria' standards of the R-Codes and the broader strategic direction for the West End Residential zone as advocated by the Pilbara Port City Growth Plan and Clauses 6.3.8 to 6.3.11 of TPS 5.

The proposed development illustrates a quality design outcome that has been designed in response to the site's setting and provides for the most orderly and efficient use of the land, without comprising the amenity or living characteristics of the neighbouring properties. Furthermore, it will reinforce the high density residential focus of the West End Residential area.

The supporting technical statements represent a thorough examination of the dust, waste and traffic issues associated with the development and have demonstrated the proposal can satisfy the necessary design and performance requirements. Accordingly, we respectfully request the Town's favourable consideration of the proposal.

APPENDIX A

Certificate of Title & Deposited Plan

WESTERN AUSTRALIA

REGISTER NUMBER	
727/DP209879	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
N/A	**N/A**

RECORD OF CERTIFICATE OF TITLE

VOLUME **2049** FOLIO **7**

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 727 ON DEPOSITED PLAN 209879

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

AUSTRALIAN BLUEWATER DEVELOPMENTS PTY LTD OF 1 COWAN WAY, KARRATHA
(T M005501) REGISTERED 30 JULY 2012

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

1. *M005502 MORTGAGE TO NATIONAL AUSTRALIA BANK LTD REGISTERED 30.7.2012.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 2049-7 (727/DP209879).
PREVIOUS TITLE: 1317-231.
PROPERTY STREET ADDRESS: 48 MOORE ST, PORT HEDLAND.
LOCAL GOVERNMENT AREA: TOWN OF PORT HEDLAND.

NOTE 1: A000001A LAND PARCEL IDENTIFIER OF PORT HEDLAND TOWN LOT/LOT 727 (OR THE PART THEREOF) ON SUPERSEDED PAPER CERTIFICATE OF TITLE CHANGED TO LOT 727 ON DEPOSITED PLAN 209879 ON 23-SEP-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.

NOTE 2: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE OF TITLE OR ON THE CURRENT EDITION OF DUPLICATE CERTIFICATE OF TITLE.

NOTE 3: DUPLICATE CERTIFICATE OF TITLE NOT ISSUED AS REQUESTED BY DEALING L328348.

REGISTER BOOK
VOL. FOL.
CT 2049 7

Transfer F938375

Volume 1317 Folio 231

WESTERN AUSTRALIA

CERTIFICATE OF TITLE

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

I certify that the person described in the First Schedule hereto is the registered proprietor of the undermentioned estate in the undermentioned land subject to the easements and encumbrances shown in the Second Schedule hereto.

REGISTRAR OF TITLES

Dated 26th July, 1995

ESTATE AND LAND REFERRED TO

Estate in fee simple in Port Hedland Lot 727, delineated on the map in the Third Schedule hereto, limited however to the natural surface and therefrom to a depth of 12.19 metres.

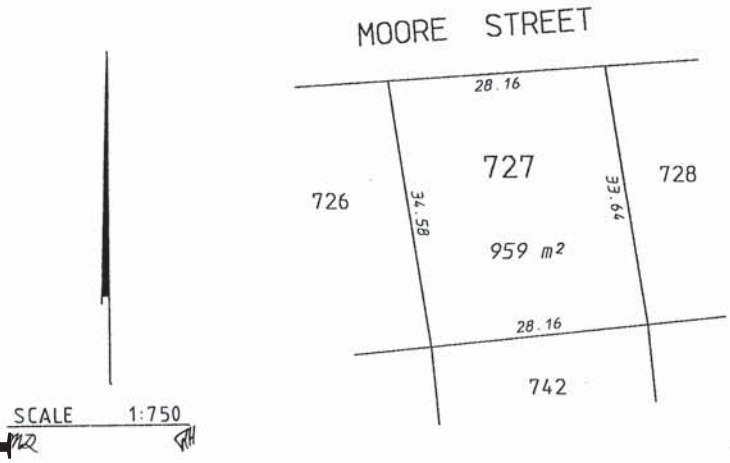
FIRST SCHEDULE (continued overleaf)

John Samuel Lockyer of 48 Moore Street, Port Hedland.

SECOND SCHEDULE (continued overleaf)

1. MORTGAGE F938376 to Keystart Loans Ltd. Registered 26.7.95 at 13.06 hrs.
2. CAVEAT F938374. Lodged 26.7.95 at 13.06 hrs.

THIRD SCHEDULE



E67590/3/89-20M-L/4664

LT. 37

FIRST SCHEDULE (continued) NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

REGISTERED PROPRIETOR	INSTRUMENT NATURE	INSTRUMENT NUMBER	REGISTERED	TIME	SEAL	CERT. OFFICER

SECOND SCHEDULE (continued) NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

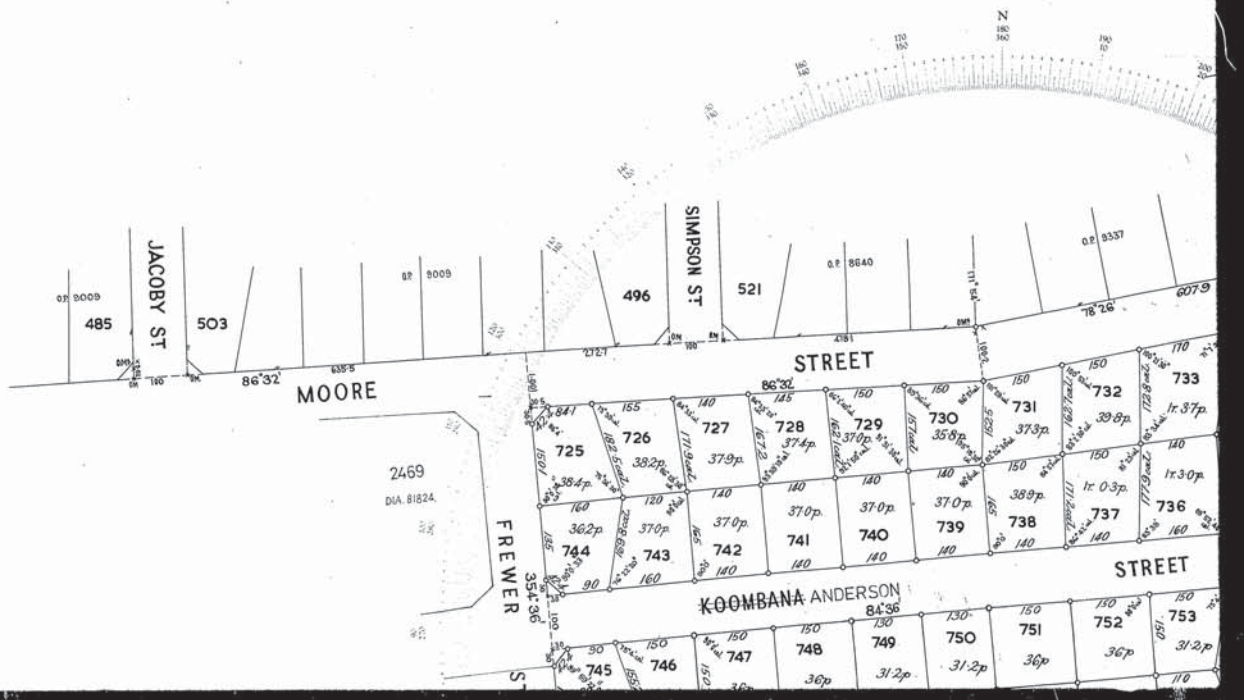
INSTRUMENT NATURE	INSTRUMENT NUMBER	PARTICULARS	REGISTERED	TIME	SEAL	CERT. OFFICER	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL	CERT. OFFICER

CERTIFICATE OF TITLE VOL. 2049 FOL. 7

PORT HEDLAND LOTS 725

FORREST DISTRICT

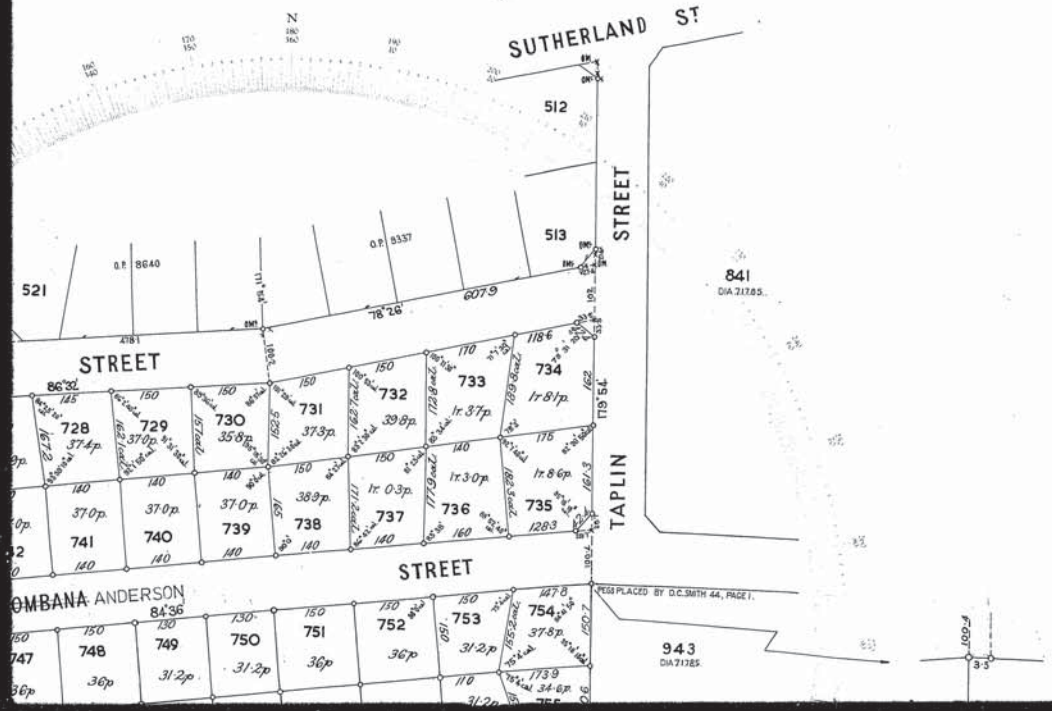
CORR: 2360/62 S.F.
3375/52 S.F.
3464/95 V5 M.F.

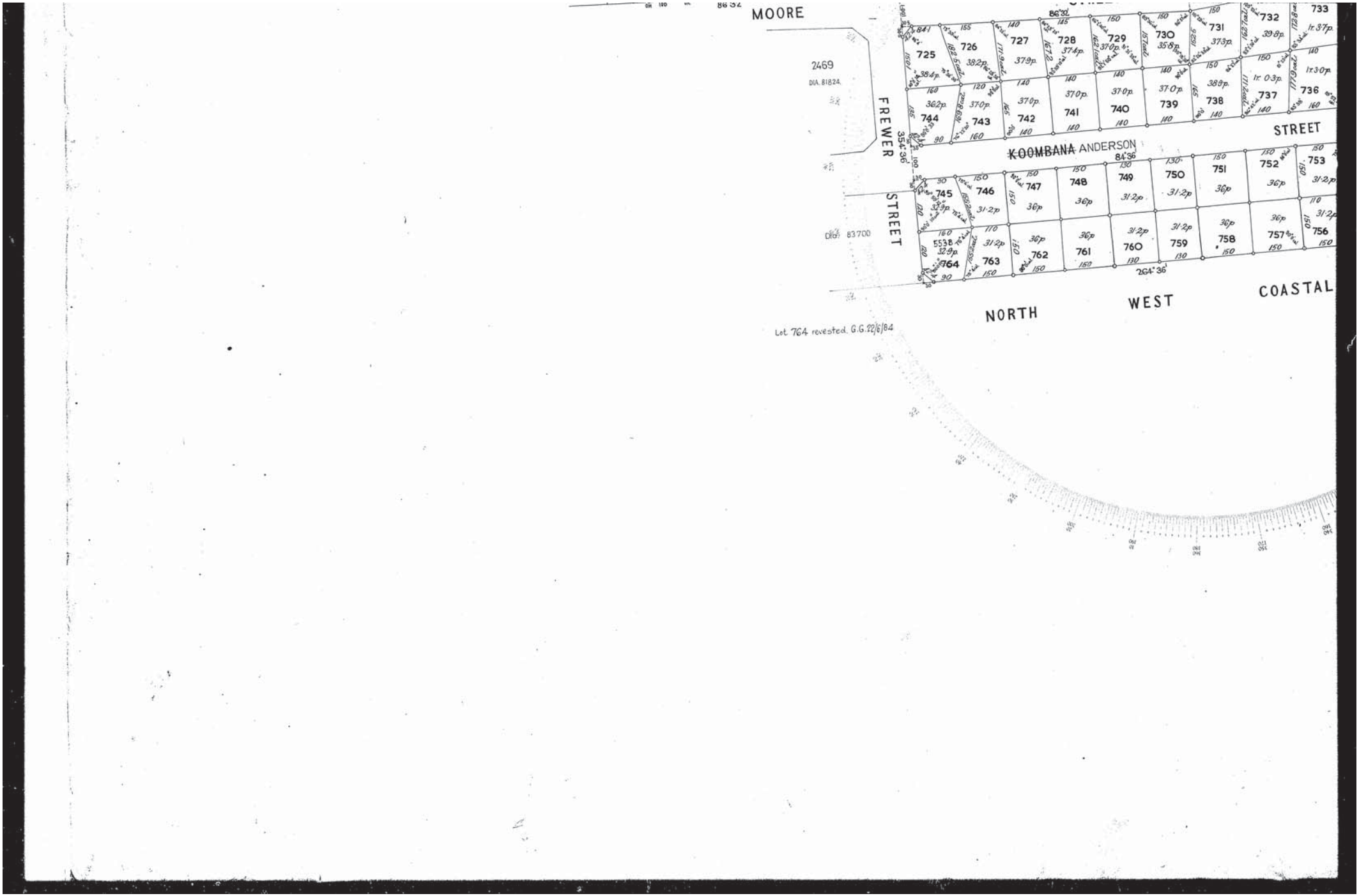


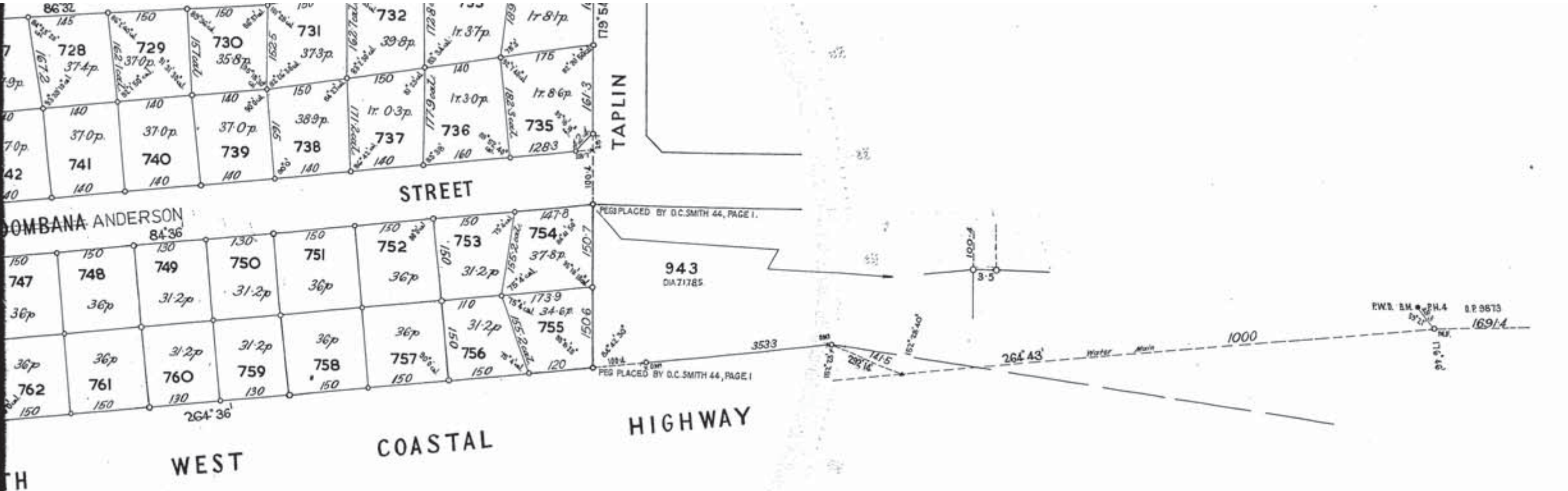
RT HEDLAND LOTS 725-764.

FORREST DISTRICT

CORR: 2360/62 S.F.
3375/52 S.F.
3464/95 V5 M.F.







CERTIFICATE.

I hereby certify that this survey was performed by me personally (or under my personal supervision, inspection and field check), in strict accordance with the Licensed Surveyors (Guidance of Surveyors) Regulations, 1961.

K.J. Croghan Licensed Surveyor.

Date 6-10-66

Azimuth observed at

or assumed from O.P. 9337

Date of Marking 6th MARCH 1965

Field Book No. K.J. CROGHAN 69 / L. ANNISON 70 68 — 14 Date 5/4/1966 — Page 6-9 / 3-4

SCALE 160 LINKS / CHAINS TO AN INCH.

Public Plan No. PORT HEDLAND TOWNSITE SHTS 1&2

Plan Drawn D.J. ROSENBROCK Date 3rd MAY 65

Account No. K.C. 10-65 / 13-65 Passed P.O. 18.5.66

Calculation Book No. B.A. WRAY 13 Fol. 39-44

Chainage close Surveyed Lots 725-744 | Surveyed Lots 745-764

Angular close N+·18 E+·10 | N 0·0 E 0·1

Area 00' | 00'

Compared with F.B. B.A. Wray 4.5.66

Tentatively Examined

Examined P. Davis 19.5.66

Original plan passed R.W. Gray

Date 18.4.1967 A/g Ass. Inspector of Plans and Surveys.

SURVEY APPROVED [signature] SURVEYOR GENERAL.

Date 19.4.1967

On Standard Plan

On Public Plan D. Dodd 22.6.67

On Compilation

Crown Grant Prepared

ORIGINAL PLAN No. 9879

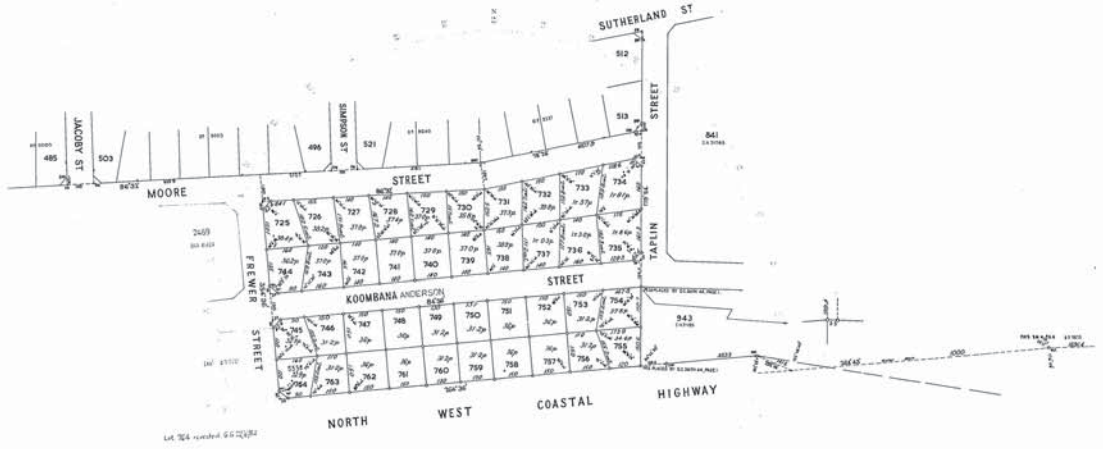
Registered E.P.H. Rae 28.5.65

Dept of Land Administration U000 17321

PORT HEDLAND LOTS 725-764.

FORREST DISTRICT

CORR: 2360/62
3375/52
3464/95



CERTIFICATE.

I hereby certify that this survey was performed by me personally (or under my personal supervision, inspection and field check) in strict accordance with the Licensed Surveyors (Guidance of Surveys) Regulations, 1961.

Date 6-10-66

SURVEY APPROVED
Date 19-4-1967

ORIGINAL PLAN No. 9879

APPENDIX B

Site Plan, Elevation Plans, Floor Plans

Prepared by: Ramm's Building Design

APPENDIX C

Dust Assessment Report

Report

BUILDING SERVICES

Lot 727 Moore Street, Port Hedland - Dust Ingress Mitigation Report
RPS Australia Asia Pacific

CONFIDENTIAL

Revision: 1.0 - Client Issue
Issued: 24 January 2014

NORMAN DISNEY & YOUNG

CONSULTING ENGINEERS

NDY Management Pty Limited trading as Norman Disney & Young
ABN 29 003 234 571
200 St. Georges Terrace
Perth WA 6000

Telephone: +618 9281-6800
Facsimile: +618 9281-6888

www.ndy.com

OFFICES

Australia:	Sydney, Melbourne, Brisbane, Perth, Canberra, Adelaide, Darwin
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United Kingdom:	London
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Malaysia:	Kuala Lumpur

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DISCLAIMER OF LIABILITY

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NDY QA SYSTEM

Revision No:	1.0
Revision Date:	24 January 2014
Reason Description:	Client Issue
File Location:	W:\P670xx\P67062\001\P-\24_Reports
Filename:	rp140122p0002
Client Name:	RPS Australia Asia Pacific
Client Contact:	Lee Rodda
Project Co-ordinator:	Marc Atherden
Editor:	Andrew Paton

Authorisation By: -

M. Atherden

Verification By: -

M. Atherden

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1. TOWN OF PORT HEDLAND REQUIREMENTS

We understand that the proposed residential development at lot 727 Moore St, Port Hedland is within the West End Residential Zone. The development comprises of two buildings, each one proposed to house three floors of apartments.

The development plan/design guideline adopted by the council details the building design and performance standards to reduce exposure to dust and to include, but not necessarily be limited to:

- Filtration of incoming air into the building
- Location of operable windows and doors on the western and southern building facades only;
- Use of deflection screens on the northern and eastern edges of operable windows;
- Use of eaves;
- Protective screens and porticos at building entrances to reduce the direct impact of wind onto the opening.

As per Councils legal advice, Clause 6.3.9 of the Scheme (TPS5) is prescriptive and does not allow innovative design solutions and therefore all applications are to be accompanied by a report prepared by a certified Mechanical Engineer, certifying that the design will mitigate dust exposure and achieves the same intent as the prescriptive provisions of clause 6.3.9 of TPS5. This report has examined the proposed design of the Lot 727 Moore Street development and by incorporating the recommendations made within confirms that the design will mitigate dust ingress impacts and achieve the same intent as TPS5, as per our assessment below.

1.1. Recommendations to Reduce Dust Ingress

Therefore to maintain an energy efficient design to meet BCA section J requirements we offer the following solutions to mitigate and comply where possible to mitigate the dust issue.

1. The north facing aspect is considered to be unaffected by the entrainment of dust due to the northerly prevailing winds being almost directly from the ocean with a only small distance of dust pickup over ground as shown in appendix D. The prevailing north westerly winds crossing Point Finucane may contain a quantity of entrained dust which will be mitigated by the eaves, half height balcony screens and blade walls, pressurisation of the apartment and self closing doors.
2. The east facing aspect to the outdoor terrace areas of the building are provided with fixed windows and sealed self closing doors to balconies. Balconies are also provided with 1600mm high privacy screens. All of these features are expected to mitigate dust ingress into the buildings from the industrial site to the south east.
3. All units are to be fitted with an outside air pre-conditioning and filtration system. This may be either a centralised system serving a number of units or a dedicated system for each unit. See notes below on outside air.
4. The internal and outside air will be filtered to the standards required by the Town development standards. Outside air shall be filtered by a coarse filter and higher grade filter of G4 and F4 classification filters respectively. The internal air mixed with the filtered outside air will be filtered by a high grade F4 filter.
5. The outside air will be provided at a sufficient quantity to pressurise the space to reduce dust being drawn into the building due to wind pressure on the building.

6. Entry door and balcony doors are to be fitted with dust seals and self closing.
7. The toilet and bathroom would be fitted with vertical discharge exhaust systems. The exhaust air quantity would be 50% lower than the fresh air intake to provide a positive pressure within the unit.

We consider these measures demonstrate that the proposed design achieves the same intent as the provisions within Clause 6.3.9 of Town of Port Hedland Planning Scheme No. 5.

1.2. Filtration Ratings

The following air filter grade list is for BS EN779 and BS EN1822 tests. The tests apply to filters used for HVAC, controlled zones and other process control requirements.

BS EN 779 Arrestance		Test type/application
G1 G2 G3 G4	<65 65<80 80<90 >90	Average value for collection of large particles using synthetic dust. Filters installed to prevent mechanical system fouling and as pre-filters to secondary and semi-HEPA range.

BS EN 779 Efficiency %		Test type/application
F5 F6 F7 F8 F9	40<60 60<80 80<90 90<95 >95	Average percentage value (for atmospheric dust spot efficiency) using atmospheric air. Filters installed to keep buildings and process spaces clean and free from airborne pollution.

BS EN 1822 Min MPPS %		Test type/application
H10 H11 H12 H13 H14	85 95 99.5 99.95 99.995	EN 1822 – Oil mist aerosol MPPS. Filters for specific (high efficiency) air quality control

1.3. Outside Air Unit

The air conditioning system will provide approximately 80 litres a second (based on a unit exhaust flow rate of 50 litres a second, i.e. 25 litres a second per w/c) of filtered, pre conditioned outside air to each typical unit to pressurise the space and provide ventilation to the room.

The fresh air intake would ideally be located on the west side of the apartments. However if this is not possible for all of the apartments, intakes on the southern facade are also acceptable.

The air conditioning units are to be designed and selected to handle Port Hedland conditions and be capable of meeting the outside air requirements. The system(s) must also provide an air off condition which leads to a maximum internal humidity in the range of 55% RH ± 5% under design conditions which will prevent the formation of condensation and mould.

Any unit selected will have to handle the additional static pressure capacity that will be present in the air distribution system due to the requirement for multistage high efficiency air filters.

2. APPENDIX A

Marked Up Drawings Showing Positions of Dust Protection Measures

NOTE: ALL DETAILS TO BE REPLICATED AMONGST ALL UNITS AND ALL FLOORS

NOTE - WEST AREA SCHEME REQUIREMENTS STILL TO BE CONFIRMED FOR OPENING DOORS AND WINDOWS AND THIS DESIGN SKETCH REMAINS SUBJECT TO FURTHER CHANGES AS A RESULT

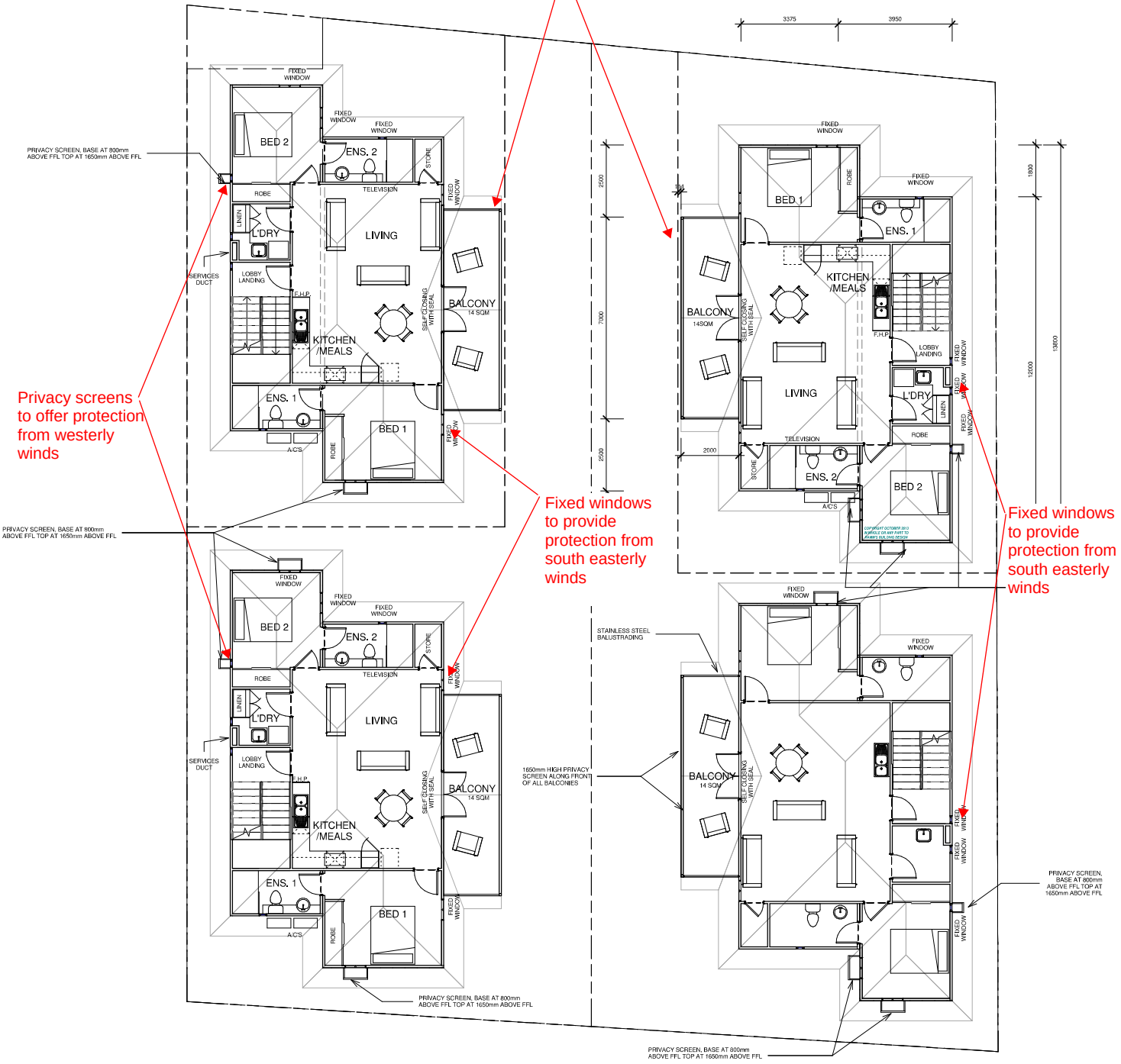
Note: each residence to be positively pressurised by providing a dedicated outside air pre-conditioning unit at a flow rate at least 50% greater than the room exhaust.

Balcony blade walls, privacy screens and eaves as well as space pressurisation offer protection to dust ingress. Balcony doors to be self sealing to further mitigate dust ingress.

Privacy screens to offer protection from westerly winds

Fixed windows to provide protection from south easterly winds

Fixed windows to provide protection from south easterly winds



1ST SCALE: 1 : 100

N

10/12/2013 9:03:38 AM

RAMM'S BUILDING DESIGN
Suite E 116 Dempster st.
Esperance WA
Ph: 90 715 881
F: 90 716 848
M: 0417 715 881
E:gary@rammsbuildingdesign.com.au

NOTES:
1) BUILDER IS TO SITE CHECK ALL MEASUREMENTS AND LEVELS ON SITE PRIOR TO COMMENCING OF ANY WORKS.
2) ANY DISCREPANCY BETWEEN DRAWINGS IS TO BE REPORTED TO RELEVANT AUTHORITY IMMEDIATELY.
3) THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL RELEVANT AND SUPPLIED DRAWINGS, INCLUDING ENGINEERING AND ENERGY RATING.
4) ALL WORK IS TO BE IN ACCORDANCE TO ALL CURRENT AUSTRALIAN STANDARDS AND THE NATIONAL CONSTRUCTION CODE

TERMITE BARRIER TO NCC VOLUME 2 PART 3.1.3 THE TERMITE PROTECTION WILL BE (BUILDER TO SPECIFY)

AUST. BLUEWATER DEVELOPMENTS
LOT 727 MOORE STREET
1ST - 3RD FLOOR

DATE	9 DECEMBER 2013
DRAWN BY	GARY RAMM
CHECKED BY	GARY RAMM
SHEET SIZE	A2
A06	
SCALE	1 : 100

Z:\PROJECTS\BRIDGEWATER SOLUTIONS - PORT HEDLAND - 09051218\BLUEWATER - 4 LOTS - 091213.vwx

3. APPENDIX B

Dust Mitigation Review provided by CA&MJ Lommers Pty Ltd

C.A. & M.J. LOMMERS PTY LTD

Suite 10, 1321 Hay Street • WEST PERTH • W.A. • 6005
Phone: (08) 9481 1008 • Fax: (08) 9481 5034
Email: admin@lommers.com.au
Trading for the LOMMERS FAMILY TRUST

Energy (ESD), Mechanical, Refrigeration
And Fire Safety Services Solutions
ABN 76 349 760 785
ACN 053 135 318

REF.: Z:\Projects\2007\2007.0106 L104 Dust Control.docx
Date: 18 September 2009

TOWN OF PORT HEDLAND
P.O. Box 41
PORT HEDLAND WA 6721

Attention Mr. T. Sargeant

Dear Sir,

PROJECT: PROPOSED "WEST END" DEVELOPMENTS – PORT HEDLAND

RE: COMMENT ON PROPOSED MEASURES TO REDUCE DUST IMPACT

In accordance with your instructions we have assessed the dust ingress minimisation guidelines provided including further suggestion as applicable.

The following commentary has been prepared with the intent to provide our assessment considering the effectiveness and practicability of the suggested dust minimisation options presented.

1. HERMETICALLY SEALED / POSITIVELY PRESSURISED BUILDINGS

- High levels of building sealing and/or positive pressurisation must be considered in conjunction with other dust ingress modes such as location of ventilation openings and filtration systems
- The effectiveness of the building sealing may be difficult to control for the life of the building due to tenant/owner modifications and maintenance regime. Detailed inspection and maintenance must be performed on a regular basis to ensure sealing components are effective.
- Due to the low occurrence of cracks or fissures expected in new or recently constructed buildings this is not considered a significant source of duct ingress.

  We also note that BCA Vol 1 Clause J3.6 (also Volume 2 – cl 3.12.3.5) already requires a high level of construction to minimise air leakage from air-conditioned residential buildings.
- Further investigation should be performed to quantify the prevalence of dust ingress through cracks and fissures in existing buildings. In our opinion this mode of dust ingress is a low contributor to the overall level of dust ingress.
- It is also expected that costs may be excessive for little improvement in dust ingress.

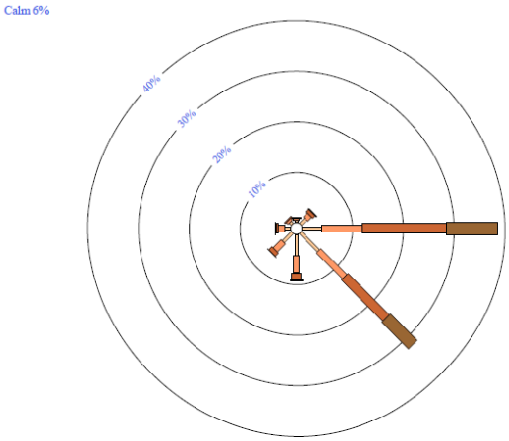
2. WINDOW AND DOOR ORIENTATION

- As the mode of dust ingress is similar for all openings in the building envelope, we have considered "Window Orientation" and "Door Orientation" simultaneously.
- The location and protection of openings is vital to reduce the ingress of dust into the space.

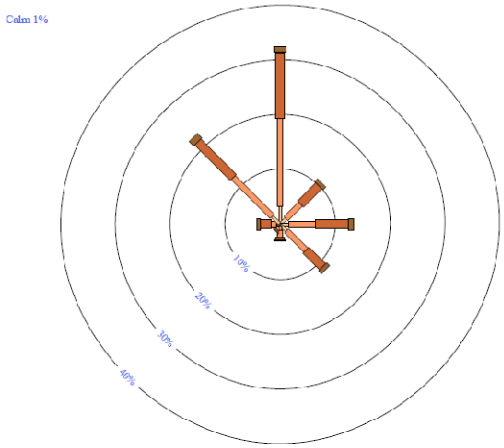
2. WINDOW AND DOOR ORIENTATION (cont.)

- Openings should be limited to walls on the leeward side of the prevailing winds in Port Hedland. We have assessed wind rose data for the area, and as such recommend not to include operable openings on Northern or Eastern facades.

  The prevailing winds in the Northern Dry Season (May to September) indicate the vast majority of the time the wind comes from East-South-Easterly in the morning swinging around to North-Nor-Westerly in the afternoon.



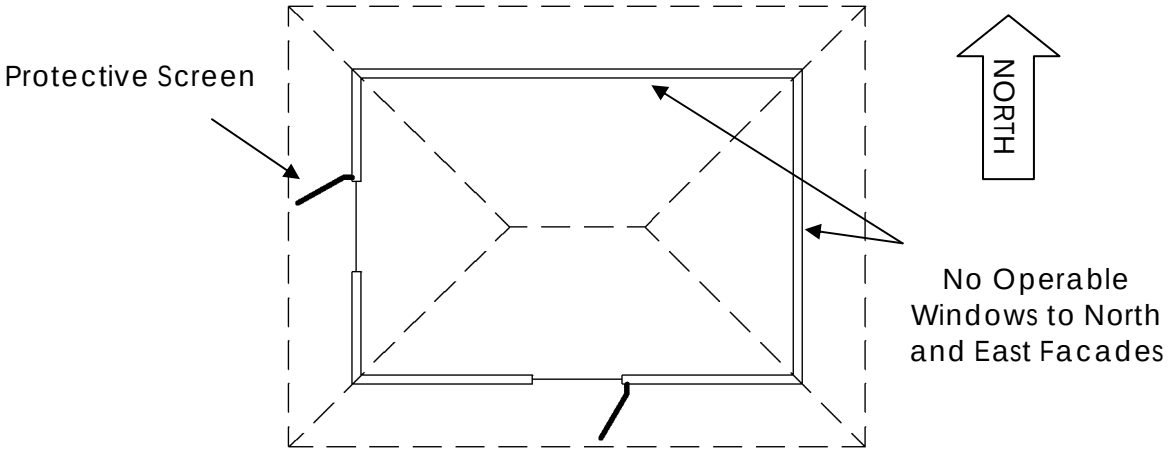
Wind Rose - Dry Season – 9am



Wind Rose - Dry Season – 3pm

- Protective screens or louvers should be implemented to reduce the direct impact of winds onto the windows. Windows on the west facades should be protected on the left hand side of the opening, windows on the south facade should be protected on the right hand side of the opening.

  These screens should be the full height of the windows and designed such that wind may be directed away from the window whilst still maintaining vision out of the window.



Window and Deflection Screen Locations

2. WINDOW AND DOOR ORIENTATION (cont.)

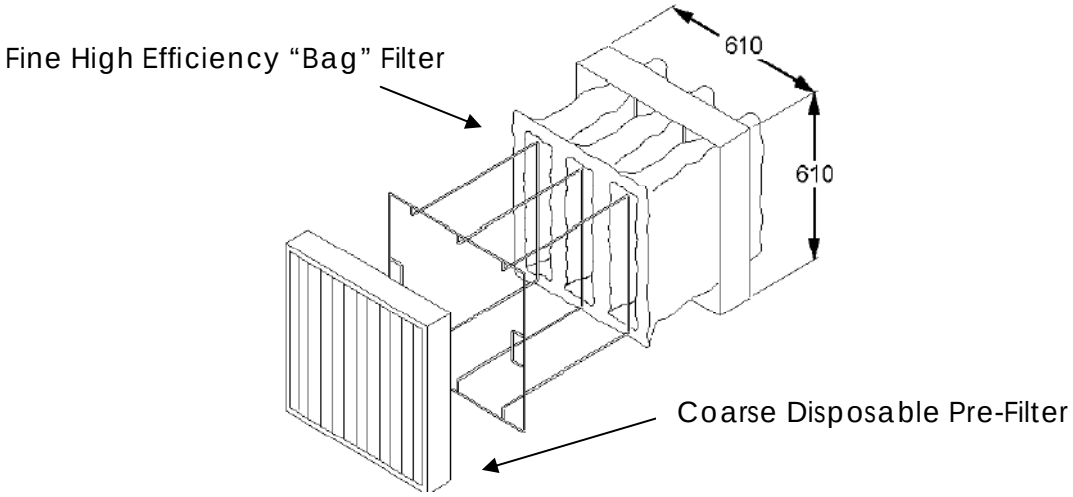
- The use of eaves to roofs of buildings can be effective to create a building boundary layer that may reduce the direct air-flow into the building. Orienting buildings such that wind-tunnelling effects of prevailing winds amplifying wind velocity should be avoided.
- Protective screens and porticos in front of the main building entrance may be of assistance to reduce the direct impact of wind onto the opening.

3. FILTERED AIR-CONDITIONING

- Air-filtration systems associated with air-conditioning equipment actively remove dust from the air. There is an ongoing requirement for maintenance, cleaning and replacement of the media to ensure adequate performance.
- Whilst the only "active" dust reduction strategy mentioned, it is also carries with it the highest on-going cost for maintenance and replacement. Filtration medium must be checked and cleaned on a monthly basis and replaced annually.
- Selection of suitable filtration type and media may also be subject to a trial as the rate at which the dust builds up in the media is directly proportional to the hours of use of the air-conditioning system.
- The following filtration systems have been considered;
    - Disposable Media – includes a cardboard frame and is designed to be replaced when showing signs of clogging. It is not washable and has a shorter life-span to washable media, however cost less and are more reliable where maintenance practices may fall short. Due to their cost and convenience, these are considered to be the most effective filtration system.
    - Washable Media – usually consists of filter media supported by a metal frame and is designed to be washed when dirty. Washable filters progressively lose efficiency when washed and as such can become ineffective without the occupants knowledge.
    - Active Electrostatic – consisting of an array of alternately charged plates, electrostatic filters attract dust particles to the plates, removing them from the air-stream. Electrostatic filters can be "self-cleaning" however require a continuous power-source and specialist routine maintenance. This option is considered expensive in comparison to other filtration methods.
    - Cyclonic Filtration – is a process in which the air is accelerated in a circular chamber to remove the airborne particles via centrifugal force. Whilst effective and relatively maintenance free, these units are significantly noisier than other options due to the high fan power requirements. This option is considered expensive in comparison to other filtration methods.
- Consideration should be given to a system of "cheap" coarse disposable filtration upstream from effective fine washable media filtration. This system can serve multiple purposes by using inefficient filtration to protect fine filtration media from the effect of high duct environments.
- The location of fresh air intakes should be selected to ensure openings are oriented downwards, on the leeward side of the dwelling and sized to ensure low velocities are experienced and minimum dust pickup from the surrounding.

4. RECOMMENDATION AND DISCUSSION

- Filtration of incoming air into buildings is the only "active" mode of dust removal from air streams incoming into the dwelling. For this reason it is our opinion that it is the most reliable and effective "dust minimisation strategy" if designed intelligently.
- Filtration systems should be designed as "two stage" arrangements utilising coarse disposable pre-filtration (suggest G3 or G4 rated), cleaned regularly, and a fine filter (suggest F4 rated) to efficiently remove particulate matter from the air.
- We have estimated the cost of this filtration arrangement to be relatively in-expensive in the order of $400 for supply and installation, with annual filtration media costs expected to be approximately $150, plus maintenance personnel cost as required.
- The pre-filtration media should be cleaned monthly, by vacuuming or "banging" out as much dust as possible, with the fine filtration replaced annually (or sooner depending on actual dust level present).



Two-Stage Filtration Arrangement

- To further reduce dust ingress into dwellings, via openings, careful design of window and door locations should be carried out to restrict their locations to Western and Southern building facades only.
- Deflection screens to the northern and eastern edges of windows should also be considered to reduce the direct path of dust laden wind into the opening.

We trust the information provided meets your approval.
Please do not hesitate to contact our office if you have any queries.

Yours faithfully,
C.A. & M.J. LOMMERS PTY LTD

M.D. Lommers
Mechanical & Fire Safety Engineer

B.Eng (Mech), M.I.E.Aust, M.A.I.R.A.H,
Grad. Cert. Performance Based Building & Fire Codes
Grad. Dip. Building Fire Safety & Risk Engineering

4. APPENDIX C

Clause 6.3 Town of Port Hedland

6.3.9 Residential development within the West End Residential Zone and within the area bounded by Withnell, McKay and Anderson Streets, and The Esplanade, Port Hedland shall be in accordance with a local planning policy, development plan or design guideline adopted by Council that incorporates building design and performance standards to reduce exposure to dust, and to include but not necessarily be limited to—

- filtration of incoming air into the building designed to utilise coarse disposable pre-filtration (i.e. G3 or G4 rated) and then a finer filter (i.e. F4 rated);
- location of operable windows and doors on the western and southern building facades only;
- use of deflection screens on the northern and eastern edges of operable windows;
- use of eaves;
- orienting buildings to avoid wind tunnelling effects; and
- protective screens and porticos at building entrances to reduce the direct impact of wind onto the opening.

6.3.10 Notwithstanding anything contained within the Residential Design Codes, all residential development in the West End Residential Zone shall comply with the following—

(a) Residential development must be between a minimum yield equivalent to the R30 density and a maximum yield equivalent to the R80 density for all land and/or any individual lot included within an application for planning approval.

(b) The maximum internal floor area for all dwellings is 110 m2.

(c) No dwelling shall have greater than two (2) bedrooms or rooms capable of being used as bedrooms.

6.3.11 When considering an application for planning approval within the West End Residential Zone, Council shall consider the purpose of the zone and recommendations of any formal risk study undertaken by or endorsed by the Department of Health.

6.3.12 Notwithstanding Clause 6.1.1 of the Residential Design Codes of Western Australia 2008, Council shall not recommend approval for the creation of lots that are less than 600 m2 unless the lots are already developed or it is demonstrated that the lots may be developed for grouped or multiple dwellings.

6.4 URBAN DEVELOPMENT ZONE

6.4.1 The purpose of the Urban Development zone is to identify land where detailed planning and the provision of infrastructure is required prior to the further subdivision and development of land. This planning should be documented in the form of a Development Plan. Although subdivision and development may take place prior to the Scheme maps being amended to reflect the details of Development Plans; the Scheme maps should be amended as soon as practicable following the creation of lots and Crown reserves.

6.4.2 Subject to the provisions of clause 5.2, the Council may require the preparation of a Development Plan for the whole or any part of the Urban Development zone.

6.4.3 The Development Plan shall address the matters outlined in Appendix 6.

6.4.4 A Development Plan may require additional conditions and these shall be outlined in Appendix 10. *AMD 14 GG 22/8/08*

Amendment 22 aims to:

- provide a mechanism to control the demographic for the area;
- create a new residential zone, the 'West End Residential Zone' with the intention of discouraging long term residency by families with children or elderly people;
- add vibrancy to both the West End and the nearby commercial area;
- maximise opportunities for workers in nearby employment nodes to reside close to work; and
- provide alternative opportunities, and commercial and entertainment facilities.

A summary of the mechanisms proposed to achieve these aims is shown in the table below.

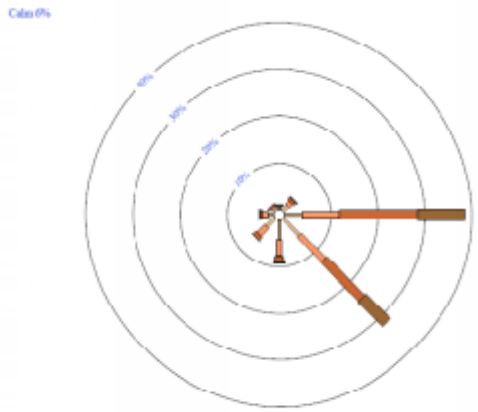
Table 3 (c): Changes to West End Development

WEST END	Current Zoning	Proposed Zoning
Density	R30 or R50 *(depending on location)*	Minimum R30
Maximum Dwelling Size	No limit	110m^2
Maximum No. Bedrooms per dwelling	Not limited. *Predominantly 3 to 4*	2
Potential Bedroom Yield	3,476 *Assuming all landowners developed their land with residential buildings to their maximum capacity*	2,312 *Assuming an average of R60 density is achieved with maximum of 2 bedrooms per dwelling*
Grouped Dwellings	Currently possible to create lots with development potential for only a single dwelling	Any new subdivision /amalgamation to be designed to permit development of grouped dwellings
Single Dwellings	Currently a permitted use. New development doesn't require planning approval subject to compliance with the R Codes	To become prohibited use *Existing dwellings to be listed as 'additional uses' to protect landowner rights.*
Building Design Guidelines	None	Proposed
Aged or Young Persons Facilities Permitted	Yes	No
Notification of Potential Health Concerns on the Certificate of Title	This is Council's current practice	This will become a standard for new developments

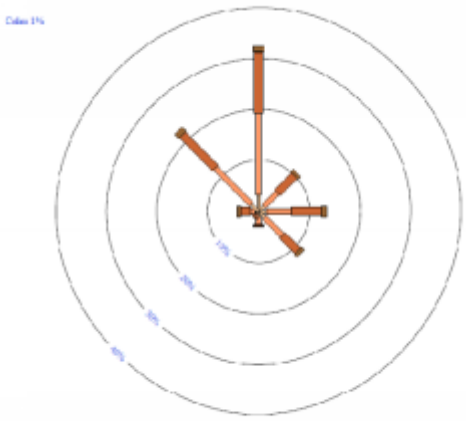
The Taskforce sought advice on the effectiveness of the measures proposed in Amendment 22. To this end, a report was commissioned from CA and MJ Lommers Pty Ltd on potential modification measures to building design. A full copy of the Lommers Report is provided at Appendix 4.

5. APPENDIX D

Location of the Site and Prevailing Wind Rose



Wind Rose - Dry Season - 9am



Wind Rose - Dry Season - 3pm

6. APPENDIX E

AS1668.1 Extract – Relating to Bathroom Exhaust Provisions

TABLE B1 (*continued*)

Enclosure type	Quantity	Unit	Comments
Laundry			
Residential			Rate is independent of enclosure size. Operation of the system may be intermittent Where a laundry is located within a bathroom, the greater quantity of either space shall apply
No dryer	20	L/s.room	
Condensing dryer	20	L/s.room	The greater of 110% of the dryer airflow (where this is known) or 20 L/s room.
Non-condensing dryer	40	L/s.room	The greater of 110% of the dryer airflow (where this is known) or 40 L/s room.
Sanitary compartment			
Bath Shower Urinal Water closet	10 *or* 25	L/s.m^2 floor L/s per listed fixture	Greater value shall be taken. For calculation purposes, floor area per fixture shall be no greater than 2.5 m^2; 0.6 m length of urinal shall be equivalent to one fixture Sanitary compartments subject to high level of use (e.g. airports, entertainment venues, and similar venues may require an increased ventilation rate) Where privacy locks or airlocks are included, provision should be made for their ventilation at 5 L/s.m^2 of floor area (e.g. via make-up air) (Handbasins are not considered as a 'listed fixture')
Bathroom/Toilet Private dwellings and attached to bedroom of hotels, motels, resorts, private hospital rooms and the like	25	L/s/room	May include bath, shower and water closet in one compartment. Rate is independent of room size (see Note 2) Higher air quantities may be required for vapour control or removal (Handbasins are not considered as a 'listed fixture') Operation of the system may be intermittent
Sewage ejection	100	L/s	Minimum

(*continued*)

APPENDIX D

Waste Management Plan

Waste Management Plan

12 Multiple Dwellings

Lot 727 (No. 48) Moore Street, Port Hedland

Prepared by:

RPS AUSTRALIA EAST PTY LTD

PO Box 465
Subiaco WA 6904

T: +61 08 9211 1111
F: +61 08 9211 1122
E: planning@rpsgroup.com.au

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Prepared for:

AUSTRALIAN BLUEWATER DEVELOPMENTS PTY LTD

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1.0 Objective and Background

1.1 Objective

The Town of Port Hedland require a Waste Management Statement (WMS) to be included as part of a development application. This WMS has been prepared to fulfil this requirement.

The objective of this WMS is to ensure that waste disposal is undertaken effectively, efficiently and sustainably, minimising the effects on the community and the environment during both construction and operation of the development.

The WMS addresses both design features and operational controls required to ensure that the plan can be implemented effectively.

2.0 Town Requirements for a Waste Management Plan

A summary of the Town's minimum requirements relating to waste storage and collection in multi storey residential buildings are:

Smaller developments of up to 12 units can provide a Waste Management Statement.

Details of reasonable bin storage areas and vehicular movement for onsite removal are to be shown on the site plan, where applicable. Statements and plans are to address the following:

Is each unit to be assigned a bin that the individual resident is responsible for?

- This requires each unit have a space to store the bin.
- Is each resident responsible putting the bin out?
- Will removal of rubbish be via placement of bins on the verge?
- Provide the frequency of rubbish removal.

Is there is a single area for bins that one individual is responsible for?

- This will require a bin compound (Built to conform as diagram provided.)
- Will there be a caretaker or particular person who will be responsible for waste management?
- This requires a regular program for cleaning bins compound etc. and this program must meet health standards.
- Provide details of vehicular access to the compound.
- Provided details for the frequency of rubbish removal from the site.

3.0 Communication

3.1 Construction

As part of the construction phase a waste management consultant will be appointed and all site and company Waste Management Policies will be explained to subcontractors during contract negotiation and compliance with these policies is included in subcontractor contracts. A copy of those Waste Management policies will accompany a building permit application.

Compliance will be policed by the managing contractor and developer during construction to ensure contractual obligations are met.

3.2 Occupation

The occupants of the development will be made aware of the Waste Management Plan and the role they are required to fulfil. This documentation will be included in the handover pack given to owners at time of purchase/lease with the waste management consultant providing this information upon lodgement of a building permit.

4.0 Waste Disposal

4.1 Construction

During construction a skip bin will be provided on site for waste produced on site during the course of construction and serviced as required. Preferred waste management contractors provide off site sorting and recycling to minimise landfill waste. These contractors will be preferentially used where practical. Sub contractors will be responsible for dumping all waste they generate into the skip bin. This will be policed by site management. Subcontractors are encouraged to use products with lower waste output.

Waste water generated during wash down and clean-up of equipment used for brickwork and plastering has the potential to be high pH and to be toxic to aquatic flora and fauna. To minimise the impacts associated with the clean-up of such equipment, the developer shall ensure that wastewaters are disposed of in accordance with relevant Guidelines. This shall be communicated to all personnel during induction.

- Used solvents and paints are to be stored in the site sea container and removed by a licensed contractor as required.

- All excess lime or cement is to be removed from the site by the person who brought it on to site.

All subcontractors will be notified of their responsibility to maintain site cleanliness and adhere to waste management policies during construction. These obligations will be included in all subcontractor contracts.

4.2 Occupation

4.2.1 Waste Flow

Waste is generated by the apartment occupiers. This waste is separated into different waste types by the occupiers and transported by hand to the bin stores located on site, where it is placed in the relevant bin. The occupiers will present only the full bins on the verge on collection day. The Town of Port Hedland collection service empties the bins into the waste disposal truck where it is removed from site for processing.

4.2.2 Bin Storage

The bin storage areas are located on the ground floor, see drawing (Site Plan) and (Ground floor Plan) and are all easily accessible for residents and screened from public view. Suitable bin pads are located on the verge, ensuring that all bins are accessible for collection purposes.

.

5.0 Waste Management Plan

5.1 Waste Sources and Volumes Generated

This section shows how the development will deal with the following requirements specified by the Town of Port Hedland;

- Adequate storage shall be provided to contain all waste and recycled material generated on the premises for at least 1 week.
- The minimum area shall be 1 square metre per residential unit.
- In addition to a detailed floor plan showing the size and location of the bin storage area, a Waste Management Statement shall be provided showing compliance with the Town's requirements.

5.1.1 Residential Waste

Waste audit data shows that high-rise multi-unit dwellings (MUDs) produce between 4 kg and 7 kg of garbage per week, and about 3 kg per week of recyclables. This is around one third that produced from single dwellings (free-standing houses). The Town of Port Hedland normally provides 240-litres of garbage capacity and 240-litres of recyclables capacity per single dwelling per week. As the figures above show, this capacity is well in excess of that required for MUDs. The residential bin capacity required for this development would be one 240-litre garbage bin and one 240-litre recycling bin per three units. Other councils typically provide this capacity for households in MUD developments and it will be enough for the likely quantities produced per residential unit in this case.

Residential waste in this instance will be separated into general and recyclable products and stored in the associated receptacles.

5.2 Storage Area Required

The Town of Port Hedland has indicated that the bin storage areas at this development must be adequate to contain all waste and recycled material generated on the premises for at least 1 week. The following calculations have therefore been made.

5.2.1 Residential Waste

The current plans show 12 units in the development. If the Town provided one 240-litre garbage bin and one 240-litre recycling bin per three units, this would amount to 4 garbage bins and 4 recycling bins. One 240-litre bin occupies a footprint of 0.45m². The total space occupied by 8 bins would be 3.6m². Allowing as much area again for access and manoeuvring bins means approximately 12m² of bins storage area would be required which equates to $1m^2$ per unit.

To comply with the Policy, the residential bin storage areas have been separated to provide for easy access for residents of each 'block'. The bins will be moved by residents on bin day and collected the same day. The bins will be located on the bin collection pads on the verge and removed after collection, to be stored in their original location.

5.3 Other Town Requirements

This section deals with how the development complies with the Town's following requirements:

1. A Waste Management Plan detailing the waste movement through the development.
2. If residents share bins, then details on how and who presents these bins on collection day.
3. Details on the estimated waste and recycling volumes generated / unit.
4. An adequate bin storage area equal to 1m²/ unit.
5. A bin storage area that is convenient for residents and verge presentation.
6. Details on verge bin presentation pads to correspond to demand.

The plans illustrate that a clear pathway can be made from either outside of the building from the parking areas. The location of the bin storage areas are out of view to the street as required by the Residential Design Codes, and are located in a convenient location for future residents.

The volumes created by residential dwellings in a multiple dwelling format are considered to be 1/3 of a single dwelling or between 4-7kg per week per unit and 3kg per week for recycling.

Bin presentation pads are indicated on the associated site plan indicating that 4 x 240litre rubbish bins and 4 x 240 litre recycling bins can be collected from the verge on collection day.

APPENDIX E

Traffic Statement

Traffic Statement

12 Multiple Dwellings

Lot 727 (No. 48) Moore Street, Port Hedland

Prepared by:

RPS AUSTRALIA EAST PTY LTD

PO Box 465
Subiaco WA 6904

T: +61 08 9211 1111
F: +61 08 9211 1122
E: planning@rpsgroup.com.au

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Traffic Statement

As required by the Town of Port Hedland, the applicant has outlined considerations associated with a traffic statement to support the proposed development. The traffic assessment has revealed that that the proposed development would not introduce any significant traffic impacts that would preclude its approval by Council.

1. Development description

The proposed development is for a 12-unit multiple dwelling residential development.

2. Vehicle access and parking

The development accommodates all resident car parking requirements on-site as set out in the R-Codes. Two (2) visitor bays are provided for in on-street car parking bays proposed to be constructed directly adjacent to the development on Moore Street.

Vehicular and pedestrian access to the development is obtained from Moore Street via a single two-way 6m wide crossover. The internal vehicular access way has been designed to ensure that all vehicles can return to the street in a forward gear.

3. Provision for service vehicles

No accommodation for service vehicles has been provided. Refuse disposal will be via the verge, and as this is a residential development no further consideration is warranted.

4. Daily traffic volumes and vehicle types

Moore Street is classified as an access road under the Western Australian Road Hierarchy (managed by ToPH), indicating that the street is designed for local access to adjoining properties only. All other roads in the area are also similarly classified, with the exception of Andrew Street (a local distributor road connecting this area with the town centre to the west and Cooke Point to the east). Further south of the site is Wilson Street, a primary distributor that functions as the major road link between the town centre, Great Northern Highway and South Hedland.

Multiple route options exist for travel to and from the site. Hence, there is ample opportunity for the traffic generated by the site to disperse via different routes.

Table 1 lists the average daily traffic volumes along selected roads in the vicinity of the site.

Table 1: TPS 5 Compliance Statement

Road	Location	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9
Anderson St	E of Brearley St	2480	-	-	-	-	-
McGregor St	W of Crawford St	3930	-	-	4480	-	4780
Moore Street	W of Jacoby St	110	-	-	160	-	120
Wilson St	E of Cooke Point Dr	8350	-	-	9730	11110	-
Wilson St	W of Cooke Point Dr	-	-	-	7920	-	8710
Wilson St	E of Short St	-	-	4670	-	5360	5730
Wilson St	W of Short St	-	-	-	6210	4810	4560

From this data, it can be seen that Moore Street carries around 150 cars on average each day, much less than other roads in the area. These traffic counts (source: Main Roads WA Statewide Traffic Digest) confirm that Moore Street is appropriate for use as an access road for local properties. The number of vehicle trips generated by the proposed development is expected to be negligible compared to the existing traffic flows, and therefore the proposal will not detrimentally impact on the operation of the existing road network or intersections.

Vehicles to be accommodated on site are standard cars for the Pilbara. Parking bays are wider as required by the Town to accommodate 4 wheel drives (2.7m x 5.4m) and in accordance with Australian Standards for this region.

5. Traffic management on frontage streets

No traffic management controls are required.

6. Public transport access

The site is servied by the 501 bus route on Moore Street, operating between Port Hedland and South Hedland via Pretty Pool and Cooke Point. Buses run on average every two hours between the hours of 8:30 am – 5:15 pm on weekdays and 8:40 am – 3:20 pm on Saturdays.

It is understood that there is an on-street bus stop (without a bus bay) on Moore Street in close proximity to the site.

7. Pedestrian access

A footpath extends along Moore Street on the south side of the road. The existing footpath will need to be modified to accommodate the proposed on-street parking bays.

8. Cycle access

The existing road network and Dual-Use-Path network surrounding the development are considered suitable for cycle purposes.

9. Access to facilities

The development is within:

- 1.5km to Port Hedland Boulevard Shopping Centre;
- 2.3km to Port Hedland town centre;

10. Safety issues

Nil