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Lots 5988 and 7433, Town of Darwin
Development Application

PROPOSAL

Lots 5988 and 7433, Town of Darwin are Crown lease parcels that have been progressively developed as the Bayview Marina Estate. Bayview Marina Estate is one of Darwin's premier residential subdivisions located a short distance from the Darwin CBD.

The subdivision is recognised for its high standard of development that has resulted from strict design guidelines developed and managed by the developer, Dover Investments.

The developers were initially granted a Crown lease over Lot 5988, Town Darwin (CLT 1251) in 1993 and then in 2004 a Crown lease (CLT 2155) was granted over an additional land area (Lot 7433) to enable the subdivision to be expanded.

The NT Government's strategic planners saw the potential for even further development in the Sadgrove's Creek locality and the Bayview developers were granted an option to purchase an additional area to the east of Lot 7433.

Bayview Marina Estate

Since that time the extension of residential development further to the east into the mangroves has gone off the agenda due to a variety of reasons and is unlikely to happen in the foreseeable future.

Whilst the option area is unlikely to happen in the short term, there are still certain areas of the existing Crown leases that have been assessed as being suitable for residential development. Areas not suitable for development, such as buffer strips along Tiger Brennan Drive and strips comprising the seawalls are obviously not suitable for residential development and these areas are in the process of being surrendered from the Crown leases.

The three remnant areas that have been determined as being suitable for residential development were the subject Development Application in 2013. These areas are adjacent to the eastern boundary of the Crown leases. The intention was to create three lots and then construct units on the proposed lots.

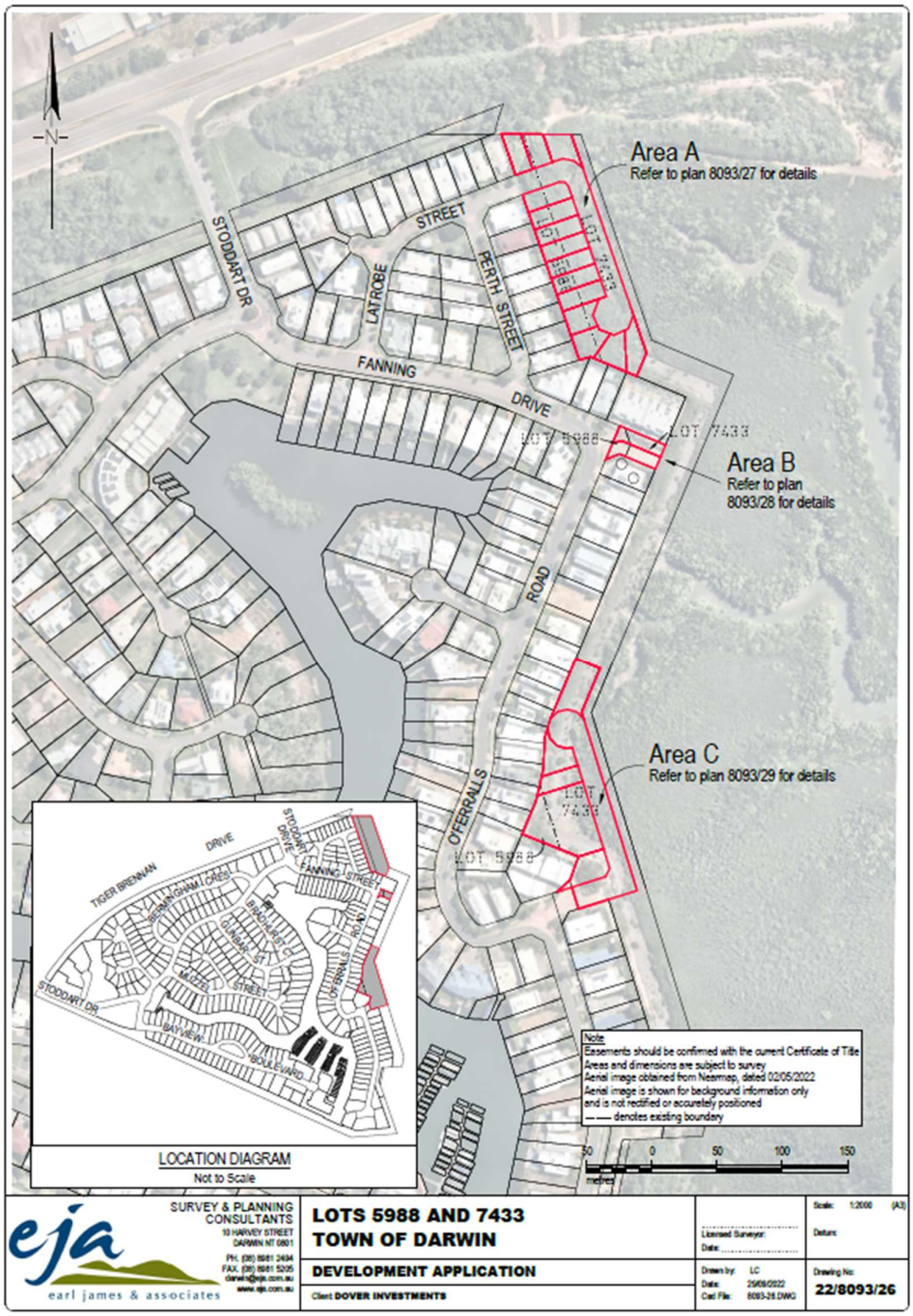
The Development Consent Authority (DCA) subsequently issued DP13/0635, approving the creation of two new parcels. The third parcel was removed from the proposal in order to provide an access option for the land to the east, however provision for that access is no longer required.

Consideration has been given to the most appropriate form of development for the three subject areas, taking into account the existing Bayview residents and the preferred living options for future residents.

The 2013 proposal, for the land to be developed to its highest potential yield of units was discarded and the option of a subdivision that creates separate freehold lots was adopted.

The current application is seeking the approval of the DCA to subdivide Lots 5988 and 7433, Town of Darwin for the purpose of creating 21 lots, in accordance with plans 22/8093/26, 27, 28 and 29.

Public open space abutting the marina



The areas proposed for development

MATTERS TO BE ADDRESSED

46(3)(aa) – Interested parties

Applicant Details

Earl James and Associates

Representative: Kevin Dodd

Address: GPO Box 884, Darwin NT 0801

Email: kdodd@eja.com.au

Phone: 08 89812494

Landowner:

Lot 5988, Town of Darwin

Dover Investments Pty Ltd (ACN 009 637 914)

Address: Level 8, 728 George Street
Sydney NSW 2000
Phone: c/o 08 89812494

Lot 7433, Town of Darwin

Dover Investments Pty Ltd (ACN 009 637 914)

Address: Level 8, 728 George Street
Sydney NSW 2000
Phone: c/o 08 89812494

46(3)(a) – Compliance with the NT Planning Scheme

Property details:

Lot 5988, Town of Darwin

Title details: Volume 857 Folio 147

Crown Lease Term 1251

Survey Plan: S92/195

Address: 57 Bayview Boulevard, Bayview

Easements: Nil

Lot Area: 5.43 hectares

Lot 7433, Town of Darwin

Title details: Volume 857 Folio 148

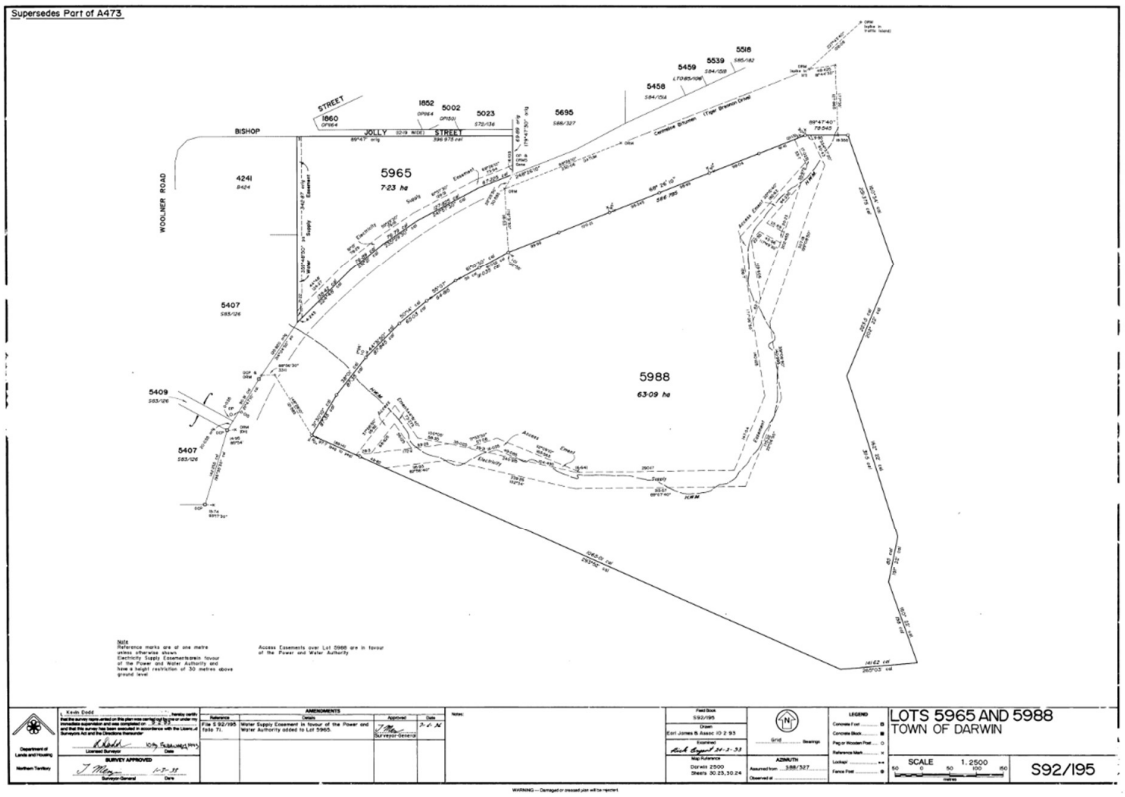
Crown Lease Term 2155

Survey Plan: S2003/206

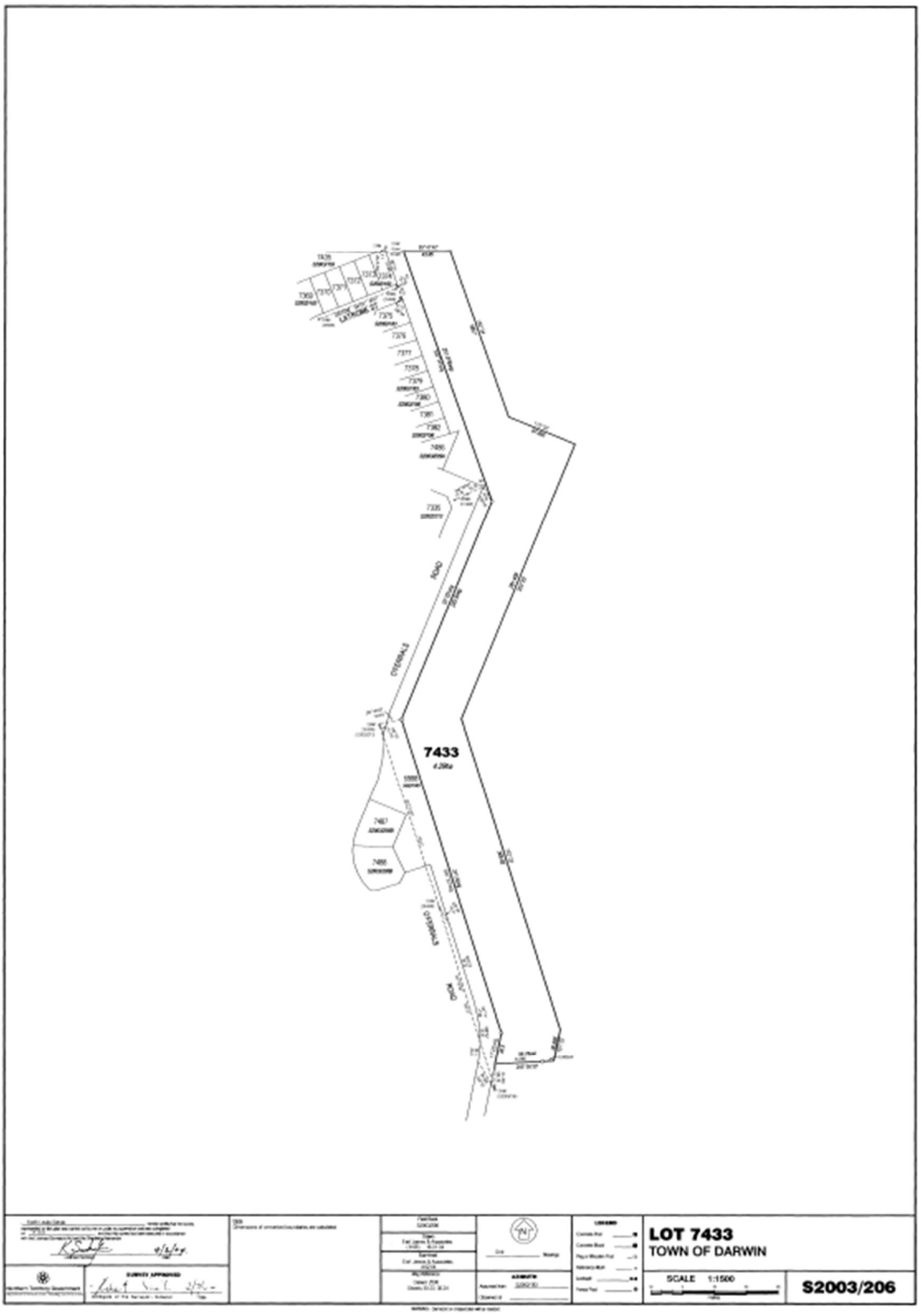
Address: Bayview

Easements: Nil

Lot Area: 3.2 hectares



Survey plan S92/195



Survey plan S2003/206

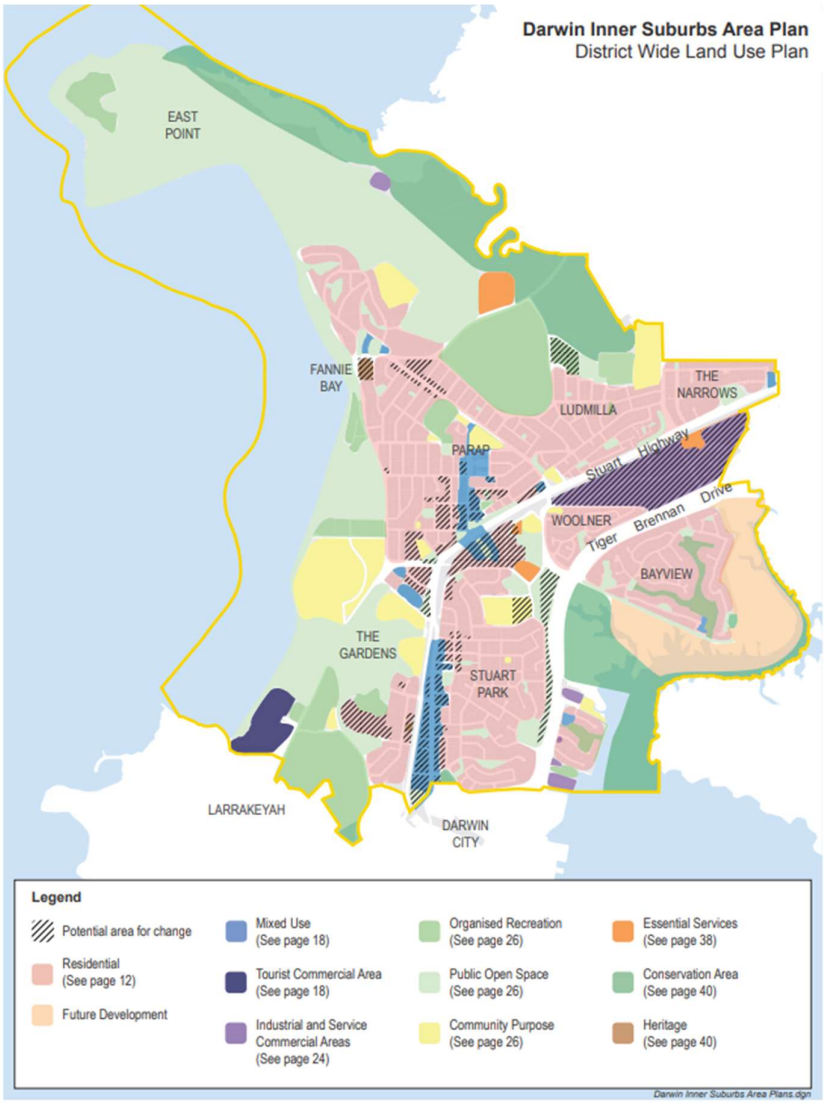
Strategic Framework

The Darwin Regional Land Use Plan 2015 (DRLUP) applies to the subject land and identifies the subject land as being suitable for urban/peri-urban development.

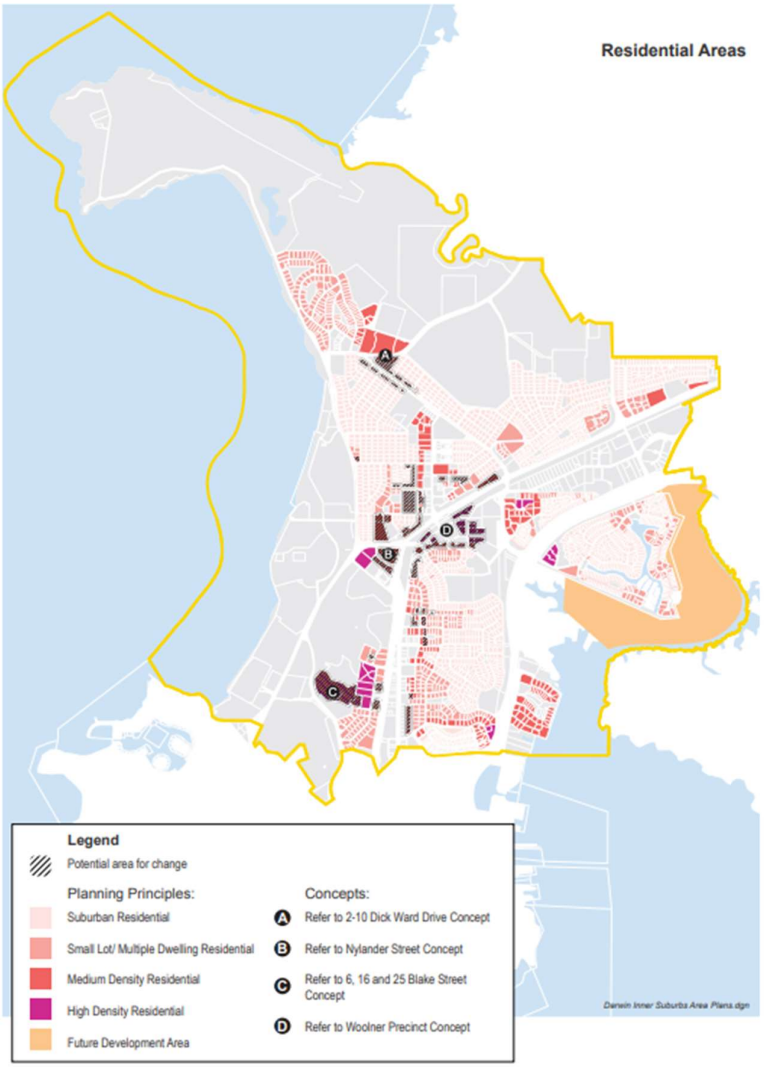
The lots being proposed by the current application are ideally suited to urban development and in no way conflict with the intention of the DRLUP.

The Darwin Inner Suburbs Area Plan (DISAP) also applies to the land comprised within the Bayview Crown leases.

The DISAP provides a framework to guide progressive growth and development within the Inner Suburbs of Darwin and the land that is the subject of this application, lying on the eastern edge of the existing Bayview development, is identified for 'Future Development'.



The following figure showing Residential Areas, from the DISAP, also identifies the subject area as a *Future Development Area.*



The Planning Principles associated with *Future Development Area* are set out in the following table from the DISAP:

Future Development Area	
Objectives 1. *Identify areas intended for future development.* 2. *Provide for development in accordance with a site or locality specific planning framework once services are or can be made available to the land.*	**Acceptable Responses** Development is to accord with either • An Area Plan and the provisions of Zone FD; or • Provisions of a Specific Use Zone. Both the Area Plan and the Specific Use Zone must address the relevant provisions within the NT Planning Scheme (including concepts within this Area Plan).

Part of the land that is the subject of the current application is zoned LMR (Low-Medium Density Residential) whilst the rest is zoned FD (Future Development).

The intention is for those parts that are currently zoned FD to be rezoned to LMR) prior to titles issuing for the proposed lots. Reticulated services are to be extended to service the proposed lots and details of the servicing are included within this Statement of Effect.

Zoning

As previously mentioned, part of the land that is the subject of the current application is zoned LMR (Low-Medium Density Residential) whilst the rest is zoned FD (Future Development). The intention is for those parts that are currently zoned FD to be rezoned to LMR) prior to titles issuing for the proposed lots.

The purpose of zone LMR is to *provide a range of low rise housing options that contribute to the streetscape and residential amenity in locations supported by community services and facilities, and where full reticulated services are available.*

The current application is not seeking approval for the use of the land but will result in parcels that will facilitate the development of the desired housing options where reticulated services are available and there are community services available.

Zone Outcomes

The LMR zone is looking for lots that are *connected to the reticulated services, integrated with existing transport networks, and with reasonable access to open space and community services.*

The lots being proposed by the current application will be connected to reticulated services and the subdivision will involve the development of new portions of public road that will connect to an integrated road network.

The new lots will be able to utilise the existing open space areas (parks, bicycle and walkways, heritage areas) and given Bayview's proximity to the CBD and other service commercial areas, the new residents will have access to existing community facilities.

Overlays

The Overlays in the NTPS identify areas of land that have specific development requirements.

The Record of Administrative Interests advises the following Overlays apply to Lots 5988 and 7433:

CR Coastal Reclamation

The purpose of this Overlay is to *ensure that landfill of coastal areas does not adversely affect adjacent land or waters, or the quality of adjacent waters, and is suited to its intended purpose.*

The *Administration* section of this overlay advises that the placement of fill below the level of the highest astronomical tide requires consent. The filling works will be part of the works associated with the development of this subdivision and geotechnical consultants Douglas Partners (DP), have previously been engaged to provide an assessment of the proposed site filling and seawalls.

It should be noted that Area B does not require earthworks as this area has been filled and surcharged as part of a previous stage of Bayview that was competed in 200.

The DP report (attached) advises that the proposed construction for Areas A and C will be as follows:

Area A: Clear and reshape the sloping ground, then construct a building platform at a final level at about RL5.5m AHD by filling over the prepared site surface. Surcharge the lot for a period of up to 5 months with about 2 m of filling to reduce post construction settlements, then remove the surcharge and construct a seawall to RL6.5 m AHD.

Area C: Remove and stockpile the rock armour from the current seawall, reshape the sloping fill batter, then construct a building platform at a final level at about RL5.5 m AHD by filling over the prepared site surface. Surcharge the lot for a period of up to 8 months with about 2 m of filling to reduce post construction settlements, then remove the surcharge and construct a seawall to RL6.5 m AHD.

Also from the DP report:

Geotechnical Issues for Design and Construction

Based on the previous earthworks carried out for construction of similar filling platforms suitable for residential construction in Stages 3 to 10 of the Bayview subdivision, there are four main geotechnical issues to be addressed. These include the following:
a. stability of the filling and surcharge during placement over soft marine sediments;
b. differential settlement between previously placed filling and new filling which may lead to the formation of tension cracks at the interface between the "old" and "new" filling;
c. settlement of the filling platform; and
d. stability of the seawall after surcharge is removed and rock armour is placed.

Each of these four issues will be specifically addressed by incorporating the following geotechnical design features and construction strategies into the site filling procedures, and by monitoring the settlement of fill platforms by precise survey.

***Issue a:** The current site surfaces will be cleared and benched before an engineered filling platform comprising a woven geotextile layer, a rockfill working platform, engineered filling and surcharge is placed over the mud surface. The earthworks profile proposed for site filling and surcharge is shown on attached Drawing 5. A similar profile has been successfully used for construction of previous stages of Bayview including the adjacent Stage 10 earthworks.*

***Issue b:** The new filling will be carefully placed in a controlled manner, and will be keyed into the current filling, to minimise the risk of longitudinal cracking and to ensure stability of the filling platform at all stages. Any tension cracks that form at the interface between "old" and "new" filling will be reinstated before surcharge is removed. Tension cracks that have formed due to differential settlement at Bayview and the nearby Tiger Brennan Drive embankments have been successfully reinstated with minimal detrimental effect to the filling platform using this approach.*

***Issue c:** Surcharge will be placed over the engineered filling to heights predetermined by engineering calculations. Examples of surcharge profiles and estimated surcharge times for areas including part of Lot A and all of Lot C are shown on attached Drawings 6 and 7. Settlement of the filling platform under surcharge loads will be monitored by periodic survey and the surcharge will not be removed until approximately 90% of primary consolidation under filling load has been achieved. Settlement monitoring of previous stages of Bayview for periods of up to 5 years after removal of surcharge indicates that post construction settlements of monuments located on filled areas have generally been limited to 20 mm or less.*

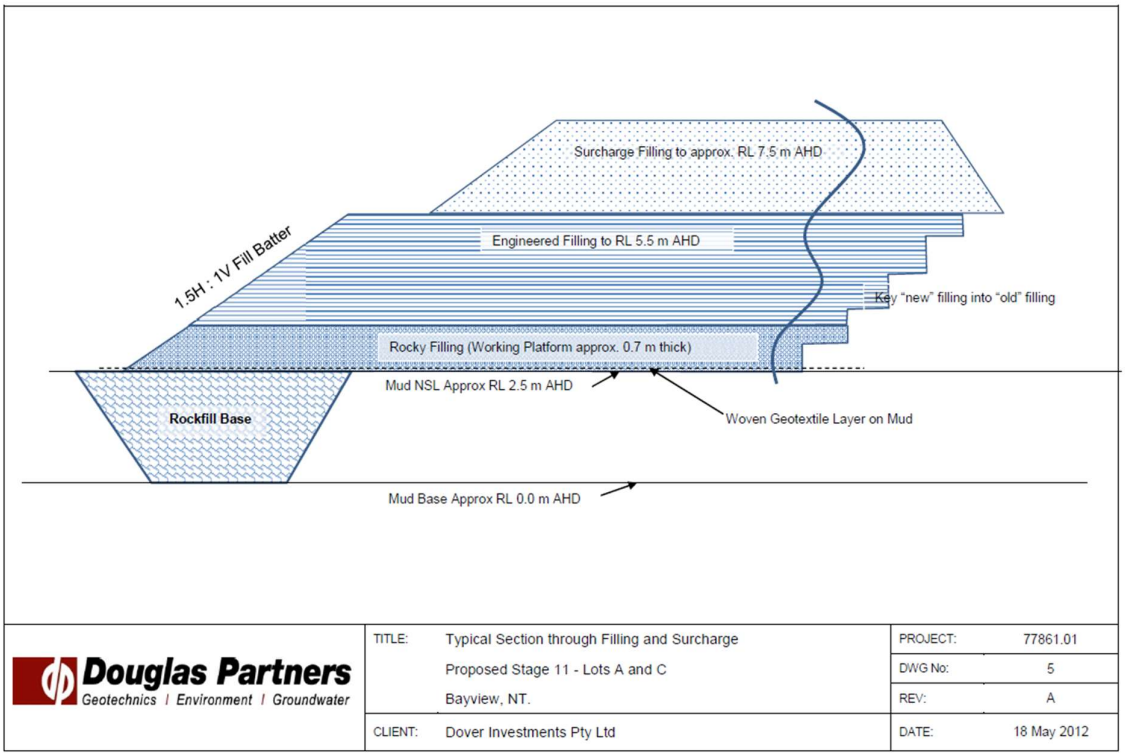
***Issue d:** The seawall section proposed for Lots A and C is shown on attached Drawing 8. This section differs from previous seawall sections at Bayview because shallower average mud depths along the lease boundary on this eastern side allow for a steeper, stable armour rock wall to be constructed on a rockfill base. The seawall construction comprises removing and displacing soft mangrove mud and replacing this soft soil with a rockfill base. The top of the rockfill base will be at or slightly below natural surface level and the rockfill base will be founded on the underlying stiff marine clay. This rockfill base will be placed before the working platform and site filling so that trenching required to remove mud does not cause any instability in the filling.*
After the surcharge is removed to the design site level of about RL5.5 m AHD, the compacted outer fill batter will be trimmed to a slope of 5H:4V and a 1 m high precast concrete retaining wall will be constructed at the crest of the batter as shown on Drawing 8. A non-woven geotextile will be laid on the batter and secured under the wall, then armour rock (which was previously removed and stockpiled before filling Lots A and C) will be placed on the batter and over the base of the retaining wall.

Suitability for Residential Construction

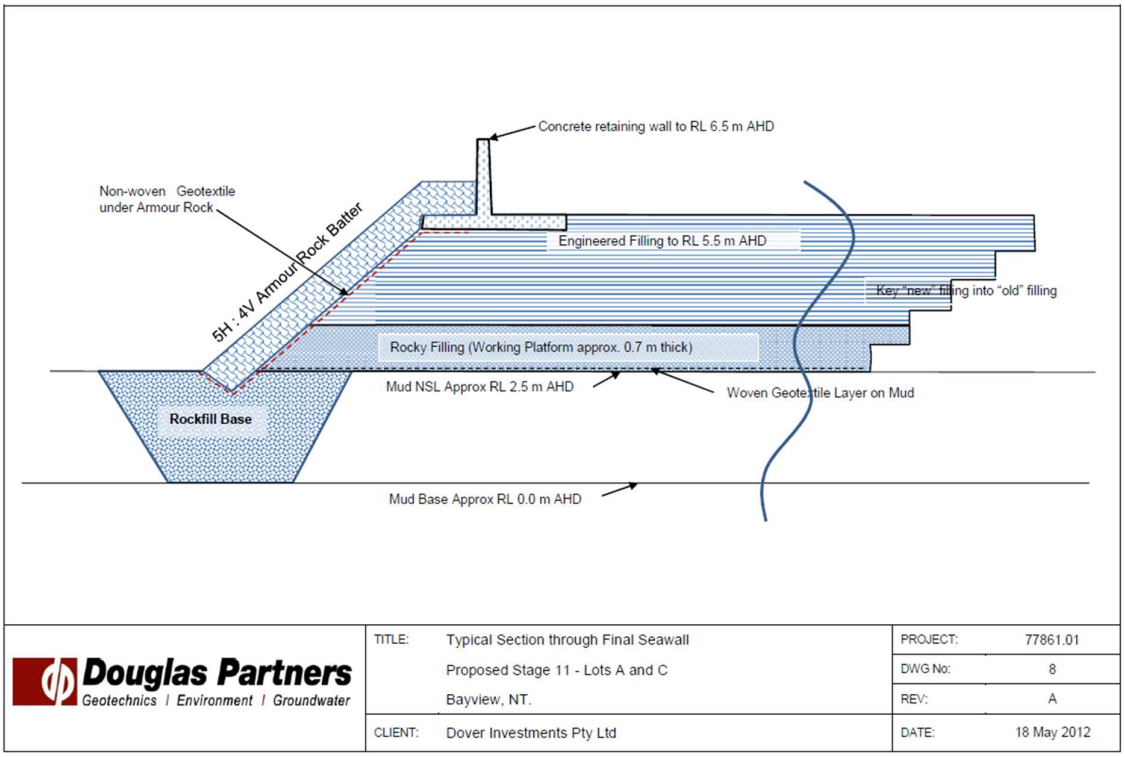
The attached Drawing 4 shows the locations of the proposed Stage 11 - Lots A and C which confirms that the information on mud depths and surcharge calculations contained in previous DP geotechnical reports will adequately cover the proposed Stage 11 lot areas. In addition, the information on Drawings 6 and 7 indicate that previous calculations of surcharge heights and surcharge times could be revised to adequately address the proposed construction schedule of the Stage 11 lots.

The proposed composite wall profile with a rockfill base will be stable, will enable development of the lots for their intended purposes, and with a crest level of RL6.5 m AHD will mitigate risk and damage as a result of any storm surge event.

If the proposed seawall section shown on Drawing 5 is adopted for construction, some additional geo-environmental sampling, testing and reporting will be required to assess the potential for acid sulphate soils (PASS) and to address the issues of handling and disposal of PASS. The management of ASS has been addressed for previous stages of Bayview and the management plans would apply to this additional construction.



Typical section through filling and surcharge



Typical section through final seawall

The future use of the subject area (post surcharging) is yet to be determined however the suitability of the site for the future use will be considered as part of a future DA.

The DP report advises that existing material comprises mostly silty gravelly cobbles and boulders. The cobbles and boulders have been described as medium to high strength and as being well compacted.

The DP report and the Cardno plans advise that outer batter slopes of 1V:2.5H should be maintained in order to ensure against slope instability and associated impact on adjacent waters.

Other measures to minimise impact on the adjacent areas include silt fences and rock sediment traps.

The DP report outlines the surcharge procedures and advises that if all the requirements are followed, then any impact on acid sulphate soils within the marine environment should be avoided.

CNC Clearing of Native Vegetation

From the DP report:

*Lot A (*Area A*) comprises grassed and vegetated vacant land which is partially filled over intertidal mud flats.*
The lot is bounded by a filled area to the north, by residential allotments located on a filling platform to the south and west, and by a narrow corridor of cleared mangroves, then mangrove forest to the east. Lot A site surface currently slopes down to the east from about RL5.5 mAHD on the crest of the filling platform to about RL2 to 2.6 m along the eastern lease boundary.

Lot C comprises unvegetated vacant land located in a re-entrant corner of the Bayview rock armoured seawall, as well as low-lying intertidal mud flats. The lot is bounded by residential allotments located on a filling platform to the north, west and south and by a narrow corridor of cleared mangroves, then mangrove forest to the east. Lot C surface is currently level at about RL5.5 m along the western boundary and slopes down across the rock wall to about RL1.8 to 2.4 m over intertidal mudflats along the eastern lease boundary.

*There are no mature mangroves within the lease boundary at either of the sites (*Areas A and C*), and all vegetation on the earth and rockfill slopes is regrowth since the slopes were constructed.*

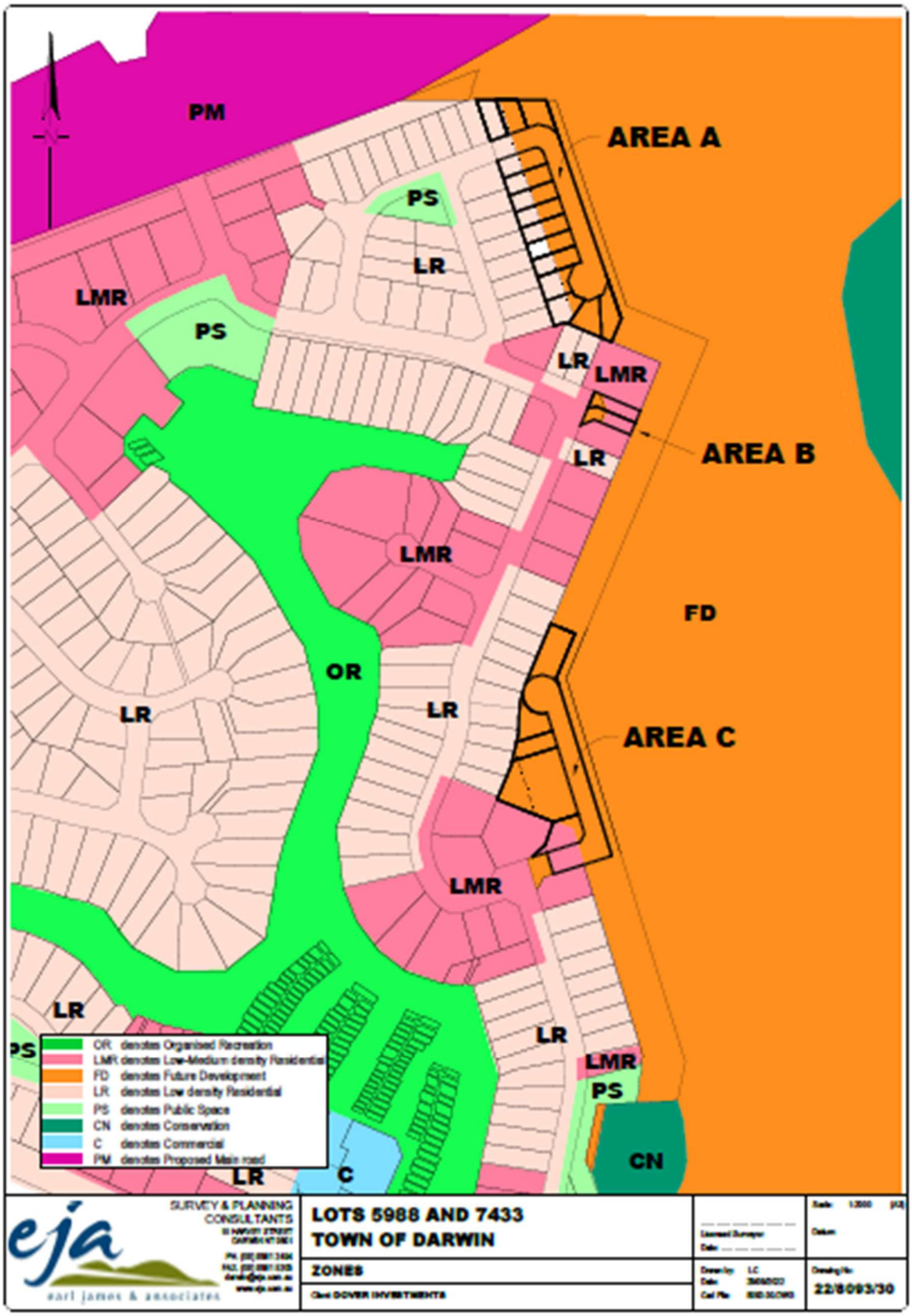
DHD Darwin Harbour Dredging

The proposed subdivision does not involve any harbour dredging.

LSSS Land Subject to Storm Surge

The purpose of this overlay is to i*dentify areas with a known risk of inundation from primary or secondary storm surges and ensure that development in these areas demonstrates adequate measures to minimise the associated the risk to people, damage to property and costs to the general community caused by storm surge.*

The earthworks and construction measures outlined in the DP report will render the land suitable for the proposed use and minimise the risk to people and damage to property.



Existing zones

A view along part of the existing seawall on the eastern side of Bayview

Clause **6.2.1** deals with lot size and configuration for subdivision in zone LMR.

The purpose of the Clause is *ensure that subdivision of land for urban residential purposes creates lots of a size, configuration and orientation suitable for residential development at a density envisaged by the zone.*

Clause 6.2.1 lists the following Requirements for the subdivision of land in zone LMR:

Land is to be subdivided in accordance with Table A to this clause

Table A to Clause 6.2.1: Lot Size and Configuration in Residential Subdivisions	
Zone	**Minimum Lot Size**
LR in greenfield areas identified for compact urban growth in the strategic framework	Average of 600m^2 and no smaller than 450m^2
LR other than greenfield areas identified for compact urban growth in the strategic framework	800m^2
LR, MR, HR and lots for **residential buildings** in Zone T	800m^2
LMR	300m^2

The prescribed minimum lot size for lots zoned LMR is 300m^2 and all of the proposed lots have areas in excess of the prescribed minimum.

Lots are to conform with the building envelope requirements in Table B to this clause.

The building envelope requirements are listed in the following Table:

Table B to Clause 6.2.1: Lot Size and Configuration in Residential Subdivisions	
Lot Size	**Minimum Building Envelope Requirement**
300m^2 to less than 450m^2	7m x 15m (exclusive of any boundary setbacks or service authority easements)
450m^2 to less than 600m^2	8m x 15m (exclusive of any boundary setbacks or service authority easements).
600m^2 and greater	17m x 17m (exclusive of any boundary setbacks or service authority easements)

Plans 22/8093/31 to 33 indicate that all of the proposed lots can accommodate the required building envelopes.

Lots have sufficient area and appropriate dimensions to provide for the proposed density of developments including dwellings, vehicle access, parking and ancillary buildings.

The lots have been designed to ensure that they can all accommodate the dwelings, access, parking and any ancillary buildings expected for a parcel zoned LMR.

There are no battle-axe lots.

No battle-axe parcels are being proposed by the current application.

Lots are oriented to allow dwellings to take advantage of environmental conditions such as prevailing breezes and sunlight.

The design of future dwellings on the prosed lots will be able to take environmental conditions into account.

Lots are connected to reticulated services.

Byrne Consultants has been engaged to consider service reticulation and the servicing of each of the proposed lots.

Servicing reports have been prepared and these form part of the current Development Application.

Servicing details are provided in following sections of this Statement of Effect but each of the proposed Lots will have water, power, sewer and communications connections.

Where there are lots for medium and higher density residential development, those lots are:

(a) distributed in small groups serviced by public transport;

(b) in close proximity to public open space and with adequate access to community facilities and services; and

(c) not located in a cul-de-sac

It is intended that the proposed Lots will be zoned LMR and the purpose of the zone is to provide for a range of low-rise housing options.

All of the lots within Areas A and B will be for single dwellings as the areas of the proposed lots are less than 600m^2.

Similarly, proposed Lots 2,3 and 5 within Area C will be for single dwellings whilst proposed Lot 1 could potentially be developed for Dwelling-Group (2) and Lot 4 could be developed for 3 or more dwellings.

The proposed Lots can all utilise the existing public transport that (buses) that service Bayview as well as the range of open space options within the precinct.

Areas A and C are to be developed as cul-de-sacs however the lots are only for low and medium future uses and the proposed roads are not long cul-de-sacs.

6.2.2 Lots Less Than 600m2 for Dwellings-Single

Purpose
Ensure the subdivision of land to lots of less than 600m^2 will allow residential development that minimises impact on amenity and the functionality of the street infrastructure.

Administration
1. *The consent authority must not consent to a subdivision that is not in accordance with sub-clauses 3 and 4.*
2. *An application must provide plans to demonstrate the requirements of sub-clause 4.*

Requirements
3. *Lots subject to this clause shall not have a boundary to any public road less than specified in the table to this clause.*

All of the proposed lots have frontages that exceed the minimums listed in the table to Clause 6.2.2.

4. *The site layout of lots subject to this clause is able to comply with the purpose of this clause and the development requirements for vehicle parking (5.2.4), building setbacks (5.4.3 and 5.4.3.3) and private open space (5.4.6).*

As required by Clause 5.2.4, every Lot can accommodate 2 on-site parking spaces and every lot has sufficient area to ensure that the required area of private open space can be accommodated in the development of a future dwelling (refer to plans 22/8093/31, 32 and 33).

Plans 22/8093/34, 35 and 36 indicate drive and on-street parking options. Whilst a few of the lots do not have the required 6.5m for on-street parking directly in front of the lots (due to the curved kerblines, the streets do allow for on-street parking in close proximity to the subject lots. This on-street parking option will not be inconvenient for the lot owners and will not unduly reduce the operation or amenity of the street.

Table to Clause 6.2.2: Lots Less than 600m² for Dwellings-Single	
Range of Lot Size	**Minimum length of any Boundary to a Public Road**
300m² to less than 450m²	10m
450m² to less than 600m²	13m

Clause **6.2.3** deals with site characteristics for subdivision in Zones LR

The purpose of this Clause is to *ensure that the subdivision of land provides lots suitable for urban residential purposes that respond appropriately to the physical characteristics of the land and does not detrimentally impact on surrounding land.*

Administration

1. *The consent authority may consent to a subdivision that is not in accordance with sub-clauses 2-6, only if it is satisfied the subdivision design is consistent with the purpose of this clause.*

Requirements

2. *Avoid the development of land of excessive slope, unstable or otherwise unsuitable soils (e.g. seasonally waterlogged) and natural drainage lines.*

The entire Bayview Marina development has involved earthworks and site treatment to ensure that the land is suitable for the purpose for which it was leased – *residential subdivisional purposes*.

The design and implementation of these earthworks has been carried out in conjunction with relevant Government agencies over many years and similarly, all design and construction works for the proposed areas will be undertaken by engineering and environmental consultants in consultation with Government agencies.

3. *Ensure, by site selection or site grading, that areas intended for lots less than 600m² do not slope in excess of 2%, such that the need for on-site stormwater structures, retaining walls and the like is minimised.*

All site design will ensure that the grades of those lots with areas less than 600m² are bot greater than 2 %.

4. Retain and protect significant natural and cultural features.

O'Ferrals Rock has previously been identified as a significant cultural feature and wit will not be impacted by the current proposal.

5. Avoid development of land affected by a 1% AEP flood or storm surge event.

As with previous stages of the Bayview development, the subject land will be developed to ensure that the resulting housing lots are free of the 1% AEP storm surge event.

6. Retain and protect natural drainage lines and any distinctive landform features or stands of natural vegetation and incorporate them into public open space.

Previous assessments of the entire Bayview lease areas have identified the distinctive landforms (eg: O'Ferrals Rock) and these have been excluded form development and set aside as public open space.

Clause **6.2.4** deals with infrastructure and community facilities for subdivision in Zones LMR

The purpose of this Clause is to *ensure that subdivision of land for residential purposes is appropriately integrated with infrastructure, community services and facilities.*

Bayview Marina Estate is a centrally located residential precinct that is a short distance from commercial and community facilities located in Darwin CBD, Stuart Park, Parap and Winnellie.

Each of the areas proposed for development by the current application will have direct access onto an established public road network. This network services the Bayview development and then connects to Tiger Brennan Drive that in turn leads to the rest of Darwin and beyond.

There is a Government public bus service that services Bayview and the residents of the proposed lots will be able to utilise this service.

Bayview incorporates a variety of public open space including parks, walking paths and heritage areas and all of the lots being proposed by the current application are less that 400m walking distance from a neighbourhood park.

As previously mentioned, Byrne Consultants has been engaged to consider service reticulation and this application includes the Byrne servicing reports.

The Reports contain all the necessary detail but following are extracts in relation to the various services, including comments from Power and Water Corporation (PWC):

Water and Sewer

PWC comments:

Lot A

- *For water – A new DN150 water main is to connect from the existing DN150 main at the end of Latrobe Street, be looped in the cul-de-sac and connect back into the existing DN100 in Perth Street. It is recommended that the water network is designed to direct flow through the cul-de-sac and reduce risk to water quality*
- *For sewer – connect into existing sewer reticulation main in Latrobe Street via new DN150 sewer reticulation main.*

Lot B

- *For water – Install 2 x service connections on the existing DN150 water main in O'Ferrals Road*
- *For sewer – construct new sewer service connections for both lots and connect into existing vacuum pit BA/P1*

Lot C

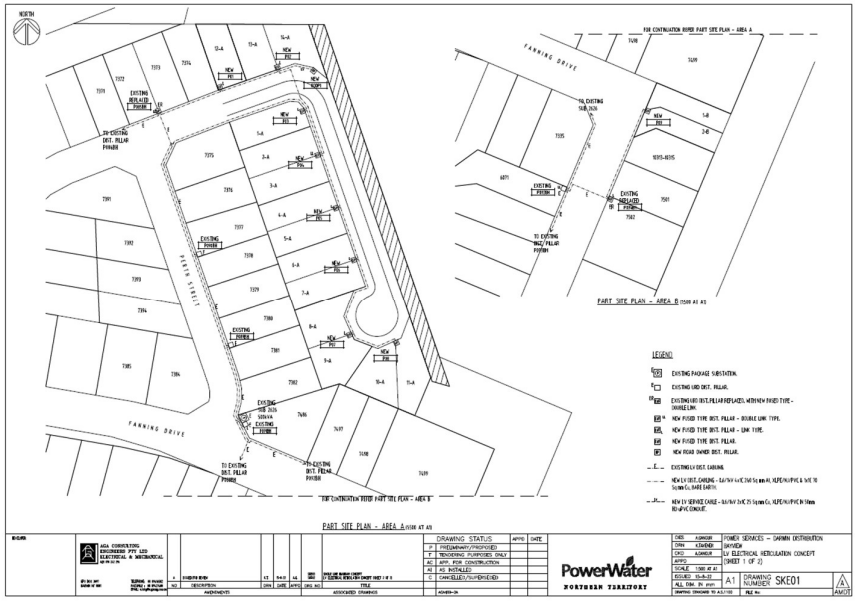
- *For water – A new DN150 water main is to connect from the existing DN150 main in O'Ferrals Road, looped in the cul-de-sac and connect back into the existing DN150 in O'Ferrals Road. It is recommended that the water network is designed to direct flow through the cul-de-sac and reduce risk to water quality*
- *For sewer – Construct new sewer reticulation main to service the subdivision and connect into existing DN125 vacuum sewer line via a new vacuum pit built as per PWC standard drawing W2-2-10A*

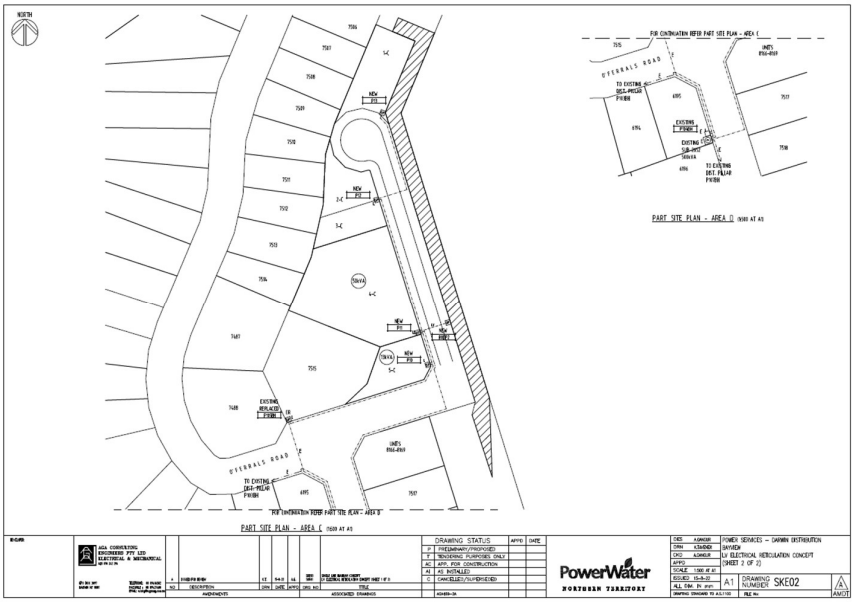
Power

All high and low voltage electrical reticulation will be designed and constructed in accordance with PWC specifications.

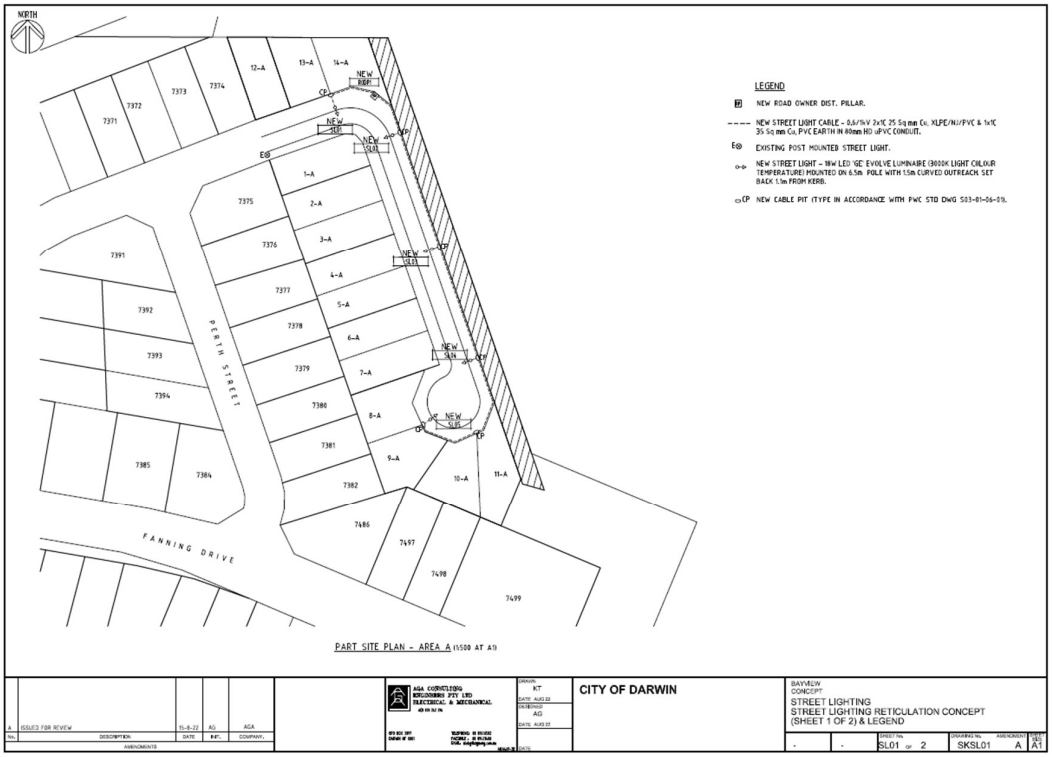
Similarly, streetlight design will be in accordance with City of Darwin (COD) requirements.

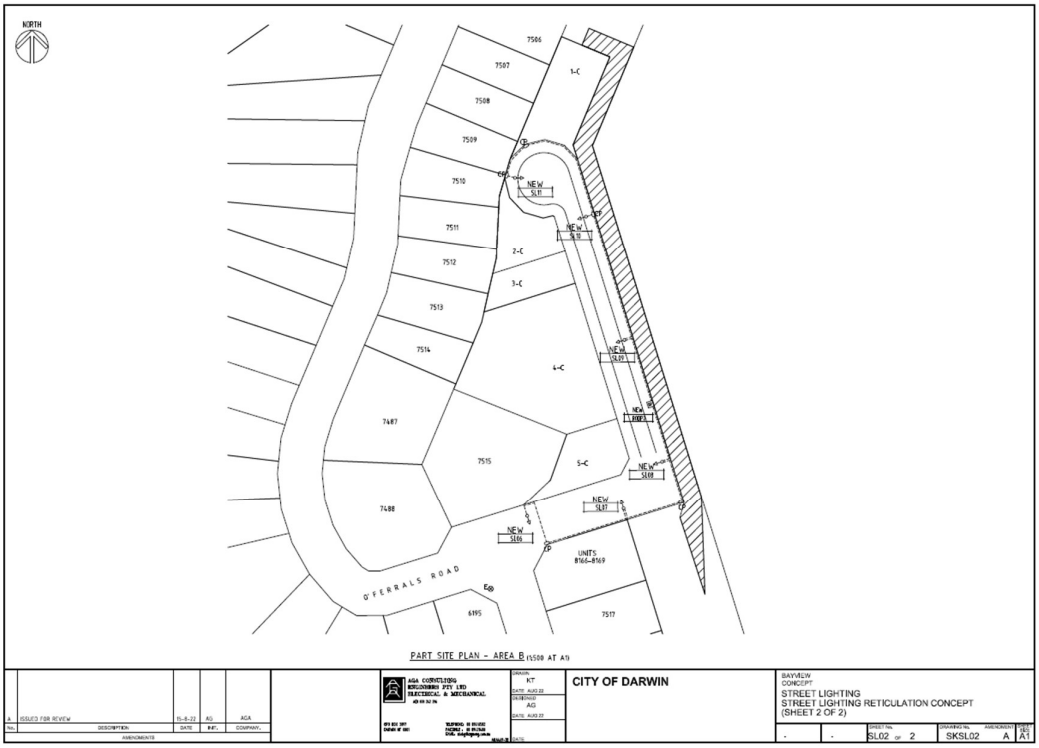
Concept electrical plans prepared by electrical consultant AGA Consulting Engineers:





Concept streetlighting plans prepared by AGA Consulting Engineers:

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UNITS 8164-8169
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6195
O'FERRALS ROAD
PART SITE PLAN - AREA B (1:500 AT A1)
A ISSUED FOR REVIEW 15-8-22 AG AGA
No. DESCRIPTION DATE INIT. COMPANY
AMENDMENTS
AGA CONSULTING ENGINEERS PTY LTD
ELECTRICAL & MECHANICAL
DRAWN KT DATE AUG 22
DESIGNED AG DATE AUG 22
CITY OF DARWIN
BAYVIEW
CONCEPT
STREET LIGHTING
STREET LIGHTING RETICULATION CONCEPT
(SHEET 2 OF 2)
SHEET No. SL02 OF 2
DRAWING No. SKSL02
AMENDMENT A
SIZE A1

Part of the extensive public walkway network through Bayview

Stormwater

The stormwater drainage design prepared by Byrne has been designed in accordance with COD standards and the Northern Territory Subdivision Development Guidelines.

Internal Stormwater Strategy:

The intent of the internal development stormwater strategy is to direct all stormwater flows from the proposed lots toward the road reserve where it will be collected via kerb and channel along the roadway and captured via stormwater inlet pits into the proposed stormwater pipe network. The sites shall discharge stormwater into the existing mangrove creek in accordance with the current stormwater management philosophy for the development.

Area A

The proposed lawful point of discharge for the development of Lot A is into the mangroves and creek area east of Latrobe Street. An existing 525mm diameter RCP which discharges to the area shall be extended and upsized to account for the additional development catchment area of Lot A.

Area B

All stormwater from Lot B is collected by the existing stormwater network (pit and pipes) on O'Ferrals Road which is directed via the trunk underground drainage network to a drainage easement through Lot 7502 before discharging into the adjacent mangroves area. No upgrades to the existing drainage system are proposed to service Lot B.

Area C

The proposed lawful point of discharge for the development of Lot C shall be via the existing underground stormwater network and 1200mm diameter RCP outlet which discharges to the mangroves area through Lot PT8169. The existing 1200mm RCP discharge pipe shall be extended and upsized to account for the additional development catchment area of Lot C.

External Stormwater Strategy:

It is anticipated that the proposed internal stormwater strategy design will cause no worsening effects of existing upstream conditions due to the proposed stormwater network being sized sufficiently to convey the upstream inflows. No worsening of the downstream flows is expected due to discharge into the existing tidal mangrove creek.

Traffic Assessment

Byrne has carried out a traffic impact assessment with the full results contained in the attached servicing the report.

Following are the conclusions extracted from the report:

- *Intersection 1 (Stoddard Dr / Tiger Brennan Dr / Woolner Rd) exhibited minor changes in the intersection performance due to the development traffic generation (no notable change). The intersection performance with respect to degree of saturation, average delay and queue length lowered during the 2027 and 2032 scenarios due to the applied background growth factors on Tiger Brennan Drive and Woolner Road, not the development traffic. It is beyond the scope of this TIA to suggest any upgrades to this intersection and impact by the proposed development is minimal.*

- *Intersection 2 (Stoddard Dr / Tiger Brennan Dr) exhibited a LoS of B and DoS <=0.6 during the 2032 growth scenario (AM / PM) due to growth rates applied to Tiger Brennan Drive. This intersection performs satisfactorily with the proposed development traffic.*

- *Intersection 3 (Stoddard Dr / Fanning Dr) and Intersection 4 (Stoddard Dr / Bayview Blvd) exhibited a LoS of A and a DoS <=0.2 for all growth scenarios performing satisfactorily with the proposed development traffic.*

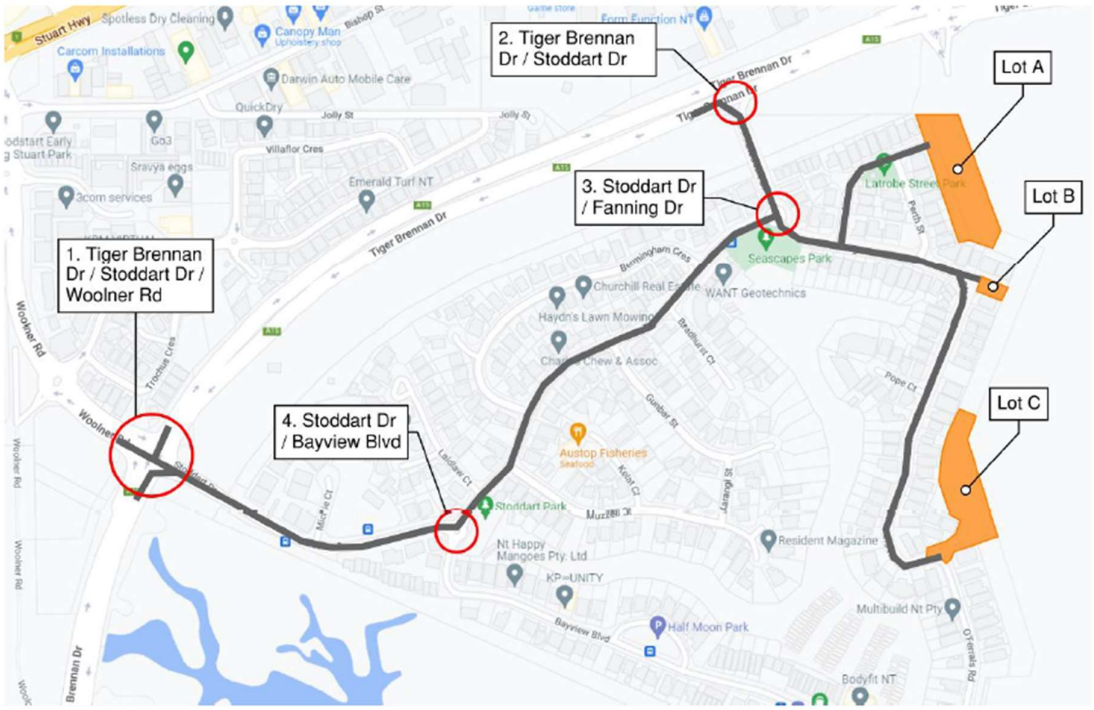

Figure 1.1 – Site Overview ***(source: Google)***

46(3)(b) – Compliance with an Interim Development Control Order

The Applicant is not aware of any Interim Development Control Orders applying to the subject land.

46(3)(c) – Referral to the NT EPA

The developer appreciates that prior to the commencement of any site works, detail earthworks plan will be required and these will be prepared by Douglas Partners in conjunction with Byrne Consultants and an environmental consultant.

These plans will detail all the various stages of the works including any initial site clearing, materials to be used, surcharge program and monitoring, final surface preparation and the associated erosion and sediment control measures.

All design plans and the ESCP (to be prepared by a certified Professional in Erosion and Sediment Control – CPESC) will be presented for assessment and approval prior to the commencement of any works.

46(3)(d) – Merits of the proposed development

The Bayview Marina development is a master planned development that has provided a variety of housing options for the Darwin market over many years and also comprised an Estate Development, unit title component that comprised the lots fronting the marina and the associated marina berths.

The land currently being proposed for development is part of the balance of Crown lease issued by the NT Government. The purpose of these Crown leases is for residential subdivisional purposes and the subdivisions now being proposed are consistent with the purpose of the leases that the Government has issued.

The proposed subdivisions will be the final subdivisions form the Crown leases and will complete the Bayview Marina development.

The design and construction of the proposed, new allotments will benefit the NT economy and will provide prime housing options that are sure to be well sought after in the market.

The range of lots sizes being proposed will provide an opportunity for people with varying financial capabilities to secure an allotment and develop a home in close proximity to the Darwin CBD.

46(3)(e) – The physical characteristics of the land

As previously addressed in this report and the associated attachments, the physical characteristics of the land have bene assessed by engineering consultants and siteworks will render the subject areas suitable for the intended use.

46(3)(f) – Public facilities or open space

The housing lots being proposed by the current application will be able to utilise the existing public facilities and open space within Bayview and the adjoining areas.

An existing neighbourhood park in close proximity to the areas being proposed for development

46(3)(g) – Public utilities and infrastructure

Significant design and consultation work has already been undertaken to ensure that the proposed lots can be serviced with power, water, sewer and telecommunication.

All lots will have direct access onto a public road network and stormwater management has been considered to ensure that the lots will all have appropriate drainage measures in place.

46(3)(h) – Potential impact on the existing and future amenity of the area

As with any staged development, each progressive stage of the Bayview Marina development has had some impact on the preceding stages.

The current application deals with the final stage of the development of the existing Crown leases and the lots now being proposed are for residential uses which is consistent with the existing uses in the existing, adjacent stages.

Given that the uses are consistent, the impact on the amenity of the area will be minimal.

46(3)(j) – Benefit or detriment to the public interest

The proposal will have significant economic benefit in not only the design and construction of the subdivisions, but also the ongoing benefits to a wide range of design and trades people during the construction of new dwellings on the lots.

Apart from the clear economic benefits, the creation of new housing options will benefit the wider community by providing the opportunity for more people to reside in this unique residential precinct.

46(3)(k) – Compliance with the Building Act

There are no buildings on the subject areas.