

From: Freshwater Planning
Sent: 13 Sep 2017 10:54:00 +1000
To: Natacha Jones
Subject: FW: DEVELOPMENT APPLICATION - MCU(CAR WASH FACILITY) - MAISEL AG Pty
Ltd ATTF Chris Maisel Family Trust - 308 Byrnes Street, Mareeba
Attachments: 2017.09.12 Town Planning Application.pdf

MSC Planning Department,

Please find attached the Town Planning Application for a Material Change of Use – Car Wash for MAISEL AG Pty Ltd ATTF Chris Maisel Family Trust located at 308 Byrnes Street, Mareeba. The Town Planning Application comprises of the following:

Town Planning Letter
TMC Building Design Group – Proposal Plans
SmartMap
EcoAcoustics Pty Ltd – Environmental Noise Assessment Report
TMC Building Design Group - Stormwater Calculations
Con-Serv Water Recovery Systems Information
Landowner's Consent Forms
DA Form 1

Could you please provide an Invoice so that the applicant can BPAY the MSC Lodgement Fee.

Additionally, please do not hesitate to contact me to discuss should you require any additional information or have any questions or queries,

Thanks and Regards,

Matt Andrejic



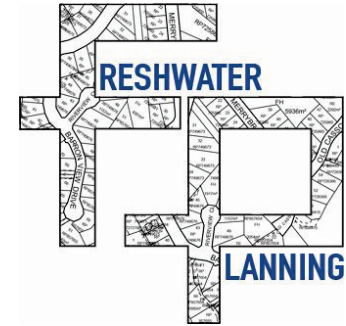
Matthew Andrejic
Director
Freshwater Planning Pty Ltd

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Your Ref:
Our Ref: F17/21

12 September, 2017

Chief Executive Officer
Mareeba Shire Council
PO Box 154
MAREEBA QLD 4880



Attention: Regional Planning Group

Dear Sir,

**RE: APPLICATION FOR A MATERIAL CHANGE OF USE – CAR WASH
LOT 2 ON M35663, 308 BYRNES STREET, MAREEBA.**

This application is for a Material Change of Use – Car Wash over land described as Lot 2 on M35663, situated at 308 Byrnes Street, Mareeba is submitted on behalf of MAISEL AG Pty Ltd ATTF Chris Maisel Family Trust the owners of the site.

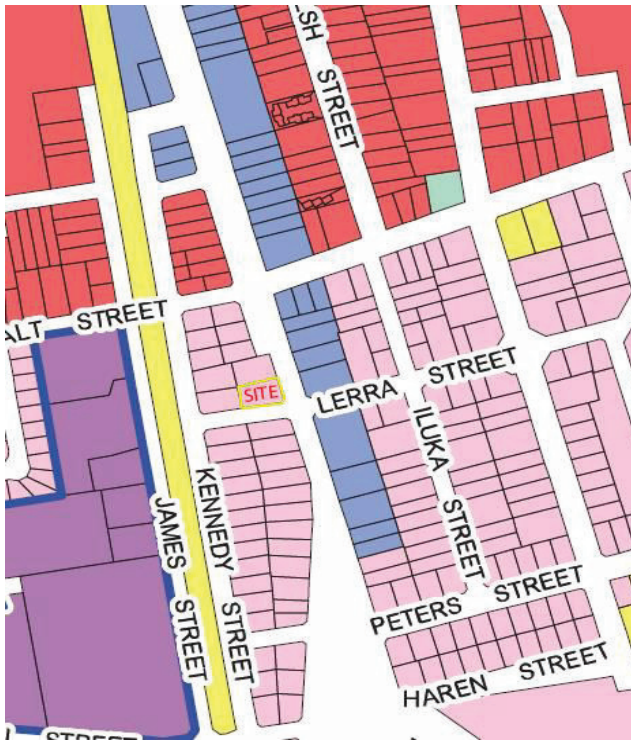
The application comprises of Application Forms, TMC Building Design Group – Proposal Plans, Con-Serv Water Recovery Systems Information, EcoAcoustics Pty Ltd – Environmental Noise Assessment Report, TMC Building Design Group - Stormwater Calculations, SmartMap and this Town Planning Submission. It is understood that a representative of Maisel AG Pty Ltd ATTF Chris Maisel Family Trust will provide payment of the Application Fee.

The Site

The subject land is described as Lot 2 on M35663, Locality of Mareeba and situated at 308 Byrnes Street, Mareeba. The site is owned by Maisel AG Pty Ltd ATTF Chris Maisel Family Trust who are also the applicants for the proposed development. The subject site comprises of a skewed rectangular block, has an area of 1,381 m² and contains frontages to the Byrnes and Lerra Streets. The site is currently vacant however, it recently contained an existing single storey weatherboard tin truss roof Dwelling House. Attached to this Submission is an Existing Conditions Plan that provides an existing site survey before the recent removal of the dwelling. The site is accessed from the existing Road Network with existing crossovers located on both Byrnes and Lerra Streets. The site contains a gentle slope and is provided with all urban services.

In relation to the current State Governmental Mapping the site is Not Mapped as containing Remnant Vegetation, Regrowth Vegetation and Essential Habitat nor is the site designated as including a Referable Wetland or Wetland Protection Area. The site is located within 25 metres of a State Controlled Road, being Byrnes Street and is not located within 25 metres of a Railway Corridor.

The Locality



The site is located along Byrnes Street which is the main southern entrance to Mareeba from Cairns and the southern Tablelands. This Byrnes Street entrance to Mareeba is characterised both Commercial and Residential Uses on either side of the road. While the Planning Scheme's Zoning Map, insert left, nominates that the Centre Zone and more likened Commercial Activities are predominately provided on the eastern side on Byrnes Street, there are also a number of Commercial Activities provided on the western side of Byrnes Street. The adjoining northern Residential Allotment, which contains a Commercial Use, is an example of this. Adjacent to the site is Mareeba Mazda and Mareeba Mitsubishi which is a large-scale contemporary Commercial Use similar to that proposed over the subject site, ensuring that comparable Uses are located in proximity. It is important to note that most of the Commercial Activities or Centre Zone Allotments along Byrnes Street adjoin Residential (Low and Medium) Zoned Allotments to the rear, similar to that proposed.

The site is located within a small Low Density Residential block of ten (10) allotments. Directly adjacent to the site on the eastern side on Byrnes Street contains allotments within the Centre Zone and Town Centre Fringe within the Mareeba Local Plan. These Zoned and Local Plan Allotments connect with the Mareeba Town Core, being the Mareeba Central Business District, via the State Controlled Road Byrnes Street (Southern Entrance to Mareeba). The site is surrounded by Commercial Activities ranging from Professional Offices to Car Sales Yards to Shops and Service Stations provided along Byrnes Street. The site is adjoined by a Low Density Residential Allotment to the north that is also used as Commercial Activities of Professional Offices for Mareeba Accounting and Tax. The adjacent Mareeba Mitsubishi and Mareeba Mazda comprises of a substantial Commercial Activity. While the site is located within the Low Density Residential Zone, the surrounding Commercial Activities and Centre Zone Planning Area demonstrate that Commercial Activities are appropriate and accepted along Byrnes Street and even within Residential or adjoining Low Density or Medium Density Residential Zones.

Referral Agencies








The site is located within 25 metres of a State Controlled Road, being Byrnes Street. It is understood that the Development Application requires Referral to the Department of Infrastructure, Local Government and Planning in relation to Main Road Concerns.

The Proposed Development

The proposed development is for a Material Change of Use – Car Wash in the Low Density Residential Zone within the Mareeba Shire Council's Planning Scheme. The site is located at 308 Byrnes Street, Mareeba and is more particularly described as Lot 2 on M35663. The site is generally regular in shape, has an area of 1,381 m² and is currently vacant.

A Development Permit for a Material Change of Use is sought to facilitate the construction of a Car Wash over the site on behalf of Maisel AG Pty Ltd ATTF Chris Maisel Family Trust. The proposed Car Wash facility includes:

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-  3 x Self-Serve Wash Bays
-  1 x Super Wash Bay
-  1 x Auto Wash Bay
-  4 x Vacuum Bays
-  2 x Dog Wash Bays
-  Plant Room, Office/Secure Storage, toilet and Vending & Change Area
-  Refuse Storage Area and Oil Separator

Additionally, integrated into the design is the provision of a Freestanding Sign, to replace the existing Freestanding Sign onsite, and the provision of Rainwater Tanks. It is further understood that the proponent proposes to install solar power infrastructure to further demonstrate the site's commitment to environmentally friendly development.

The operating hours for the proposed Car Wash have been determined by the Acoustic Investigations to ensure compliance with the Environmental Protection (Noise) Policy, 2008 and are 24 hours per day 7 days per week. However, it is noted that the vacuum bays will not operate during the night period, being 10 pm to 7 am. This will ensure that minimal impact is provided to adjoining Residential Allotments and compliance with Environmental Protection Noise Policy is achieved.

The proposed development is supported by a site based Stormwater Management Plan which demonstrates that all Stormwater can be accounted for and discharged to the lawful point of discharge. Waste effluent disposal for the site will be via gravity fed pipe/pit system to the appropriate sewer connection with the permission of the local Water Authority. The Car Wash is to be provided with Silt Pits for both the Automatic and Self-Serve Wash Bays and either connected to Reclaim Pits or Petrol/Oil Interceptors pits and then directed to a Holding Pit for the final treatment (further Oil Separator) prior to discharging to the sewerage system.

The Car Wash will operate as a five-star water rated Car Wash with the Car Wash equipment used at this facility rated under the Car Wash/State Government water rating scheme providing a much needed day-to-day environmentally friendly community facility in the local area catering for local residents and visitors of Mareeba and surrounds.

The individual areas of each on the abovementioned facilities are nominated on the Proposed Site Layout Plan with the total Roofed Area of the Car Wash Facility being 552.0 m² equating to a site coverage of 40% with the proposal containing a maximum Height of 6.2 metres above finished floor level of the Super Wash Bay.

A detailed Environmental Noise Assessment Report (attached) has been conducted for the site by EcoAcoustics Pty Ltd. The Acoustic Investigation and Report assumed mitigation measures listed in the Report's Recommendations have been complied with and integrated into the proposed Car Wash development ensuring compliance with the requirements for the Environmental Protection Noise Policy. All equipment used will comply with the EPA noise requirements, and meet or exceed those used during the calculations for the acoustic report analysis. Every step has been taken to minimise the acoustic impacts of the car washing equipment used within the site with the designed layout meeting or exceeding the appropriate noise regulations for the zoning of the subject property and adjoining properties, as the Use of the adjoining properties has been taken into account resulting in a lower permitted noise level, which the proposed design successfully achieves. The Environmental Noise Assessment Report concludes that *'the results of the noise predictions show that the proposed alterations to the site can comply with the noise criteria set out in EPP (Noise) for all time periods at nearby residential receivers with the inclusion of the attenuation measures.'*

The site contains dual frontages to the existing Road Network, being Byrnes and Lerra Streets with existing crossovers from both Byrnes Street and Lerra Street. The proposed development is also offering access via both Byrnes and Lerra Streets, replacing the existing crossovers with two concrete crossovers 6.0 metres in width, and relocating the Lerra Street access further away from the Byrnes Street intersection to improve siting and network connectivity.

The control of traffic flow patterns through any site is of great importance in order to maximise the sites potential including the customer experience and most importantly to create a safe passage for all vehicles to manoeuvre around the site. This site has been designed to achieve clear lines of sight, clear driveway locations, line and directional arrow markings (so customers know what lane to be in and the direction to travel), painted lane markings stating, "Auto Wash Bay Entry". These elements are demonstrated on the Proposed Site Layout Plan from TMC Building Design Group.

Currently there are no published generation rates for Car Wash facilities located in this area in Far North Queensland. However, based on traffic generation rates of other similar Car Wash facilities and Car Wash facilities existing in the surrounding local areas, it is expected that the site will generate an average of 50 to 70 VPD (vehicle movements per day). During the busiest times, it could be expected that the site will generate 80 to 100 VPD. Throughout the busiest hours of operation, it is expected that the Car Wash could generate 6 to 10 VPH (vehicles movements per hour), i.e.: 1 car entering/exiting the site every 6-10 minutes. The existing traffic volumes along Byrnes and Lerra Streets are considered to be appropriately designed to easily cope with this rate of traffic movement.

The potential for traffic queueing on the site is plentiful, as demonstrated on the Proposed Site Layout Plan, with customers wanting to wash their vehicle are directed (via the directional signs) to the far north-east driveway (6 m wide) along Byrnes Street where they enter the site. Once on the site customers are guided by line/lane markings to direct them to the specific car wash area which they intend to go. Customers can easily manoeuvre to their desired wash bay via the minimum 14 m wide (Super Wash Bay) or 18.2 m wide (Self-Serve and Auto Wash Bays) driveway/queueing area which is more than adequate to turn and queue all vehicles. In the dedicated car wash lane and queueing areas the site can have a minimum of 13 vehicles queued prior to entry into the wash bays. Customers can use the wash bays and then proceed to turn into the Vacuum Bays or exit the site onto Lerra Street. Refer to the swept path diagrams, general car parking layout and SU Truck (largest expected rubbish vehicle to enter the site) on Sheet 7 of the TMC Building Design Groups Proposal Plans.

As a corner site; the proposed buildings are well set back from the actual corner of the intersection, thus maintaining the existing good visibility that drivers currently experience. Landscaping is also an important feature of a corner site; The proposed landscaping has been sourced from a local plant nursery to ensure that readily available and suitable plant species are planted. Plantings of various species, colour scheme, densities and heights have been selected to create a visually attractive site. The proposed landscaping will create a formal strategic landscaping approach for the developed site instead of randomly located vegetation of varying species.

Site lighting will be connected to a light sensing device that will only operate once the natural light falls below the required level. All site lighting will be directed into the site and baffles will be fitted to avoid light spill onto the adjoining properties.

Air-borne emissions are mitigated by the actual design and layout of the buildings, positioning the roller door at the entry and exit of the Automatic Wash Bay, the acoustic fence, the proposed site landscaping, the height/depth of the fascia's and roof design; will all combine to reduce the wind tunnel effect and hence will minimise water any overspray from the Wash Bays.

The proposed Car Wash development is not envisaged to encompass any significant negative impacts on the adjoining land and is not considered to affect how the adjoining properties currently operate. The overall development will be an improvement on the current vacant block providing an attractive streetscape enhancing the visual aesthetics of the immediate vicinity. Additionally, the proposal is not considered to negatively impact the existing nature and amenity of the area, instead enhancing the amenity and character as the Material Change of Use provides an attractive (additional) local service to support the Residential population within the immediate vicinity and surrounding environs of Mareeba.

The site is located in the Low Density Residential Zone within the Mareeba Shire Council's Planning Scheme. A Material Change of Use for a Car Wash is an Impact Assessable Use within this Zone. The application is Impact Assessable.

This Submission provides a comprehensive assessment of the relevant planning instruments and site context for the proposed Car Wash Use. This is supported by the attached architectural Proposal Plans, professional Consultants Reports and the assessment against the relevant aspects of the Mareeba Shire Council's Planning Scheme. It is considered that the proposed development is an appropriate land Use for the site, immediate vicinity and surrounding environs providing a supporting Use to the surrounding local residents of Mareeba.

Far North Queensland Regional Plan 2009-2031

Lot 2 on M35663 is identified as being in the Urban Footprint designation of the FNQ Regional Plan Mapping.

The proposal is for the further development of the Urban Areas of Mareeba, providing necessary services to cater for and support the ever-growing population.

It is considered that the proposed Material Change of Use is not in conflict with the Objectives and Intent for Urban Footprint in the FNQ Regional Plan 2009-2031.

Mareeba Local Plan Code

The site is not located within the Mareeba Local Plan as demonstrated on the Mareeba Shire Council's Planning Scheme Mapping however, it is noted that the site is immediately adjacent (eastern side of Byrnes Street) to the Town Centre Fringe which stretches past the site. The proposal, while outside of this Local Plan Area, is considered to enhance the amenity of the Town Centre Fringe providing additional Commercial Activities along Byrnes Street resulting in a more visually pleasing and aesthetical streetscape for the main entrance to Mareeba. The proposed development is considered appropriate and compliments the Town Centre Fringe of the Mareeba Local Plan Code.

Low Density Residential Zone Code

The site is designed in the Low Density Residential Zone of the Mareeba Shire Planning Scheme. The proposed development is considered to generally comply with the Code achieving the Acceptable Outcomes and where not able to be met, or are available, meet the Performance Outcomes of the Code. The proposed development is considered appropriate and not in conflict with the Low Density Residential Zone Code as it provides for a supporting Use to service the immediate and surrounding residential neighbourhoods.

Performance Outcomes	Acceptable Outcomes	Comment
Height		
PO1 Building height takes into consideration	AO1 Development has a maximum building	Complies, The maximum height of any building or

Performance Outcomes	Acceptable Outcomes	Comment
<p>and respects the following:</p> <ul style="list-style-type: none"> (a) the height of existing buildings on adjoining premises; (b) the development potential, with respect to height, on adjoining premises; (c) the height of buildings in the vicinity of the site; (d) access to sunlight and daylight for the site and adjoining sites; (e) privacy and overlooking; and (f) site area and street frontage length. 	<p>height of:</p> <ul style="list-style-type: none"> (a) 8.5 metres; and (b) 2 storeys above ground level. 	<p>structure is 6.2 metres from the finished floor level (Super Wash Bay). All structures are of single storey, except for the Plant Room having an internal Mezzanine Floor level over the top of the Secure Storage room (predominately for security measures).</p>
Outbuildings and residential scale		
<p>PO2</p> <p>Domestic outbuildings:</p> <ul style="list-style-type: none"> (a) do not dominate the lot on which they are located; and (b) are consistent with the scale and character of development in the Low-density residential zone. 	<p>AO2</p> <p>Domestic outbuildings do not exceed:</p> <ul style="list-style-type: none"> (a) 100m² in gross floor area; and (b) 5.5 metres in height above natural ground level. 	<p>Not Applicable. No domestic outbuildings proposed.</p>
<p>Siting, where not involving a Dwelling house</p> <p>Note—Where for Dwelling house, the setbacks of the Queensland Development Code apply.</p>		
<p>PO3</p> <p>Development is sited in a manner that considers and respects:</p> <ul style="list-style-type: none"> (a) the siting and use of adjoining premises; (b) access to sunlight and daylight for the site and adjoining sites; (c) privacy and overlooking; (d) opportunities for casual surveillance of adjoining public spaces; (e) air circulation and access to natural breezes; and (f) appearance of building bulk; and (g) relationship with road corridors. 	<p>AO3.1</p> <p>Buildings and structures include a minimum setback of:</p> <ul style="list-style-type: none"> (a) 6 metres from the primary road frontage; and (b) 3 metres from any secondary road frontage. <p>AO3.2</p> <p>Buildings and structures include a minimum setback of 2 metres from side and rear boundaries.</p>	<p>See Comment Below.</p>
Accommodation density		
<p>PO4</p> <p>The density of Accommodation activities:</p> <ul style="list-style-type: none"> (a) contributes to housing choice and affordability; (b) respects the nature and density of surrounding land use; (c) does not cause amenity impacts beyond the reasonable expectation of accommodation density for the zone; and (d) is commensurate to the scale and frontage of the site. 	<p>AO4</p> <p>Development provides a maximum density for Accommodation activities in compliance with Table 6.2.6.3B.</p>	<p>Not Applicable. No Accommodation Use proposed.</p>

Performance Outcomes	Acceptable Outcomes	Comment
Gross floor area		
PO5 Buildings and structures occupy the site in a manner that: <ul style="list-style-type: none"> (a) makes efficient use of land; (b) is consistent with the bulk and scale of surrounding buildings; and (c) appropriately balances built and natural features. 	AO5 Gross floor area does not exceed 600m ² .	Complies, The Gross Floor Area or in this instance Roofed Area of the site is 552 m ² which is less than 600 m ² . The structures are considered to make the most efficient use of the land and are consistent with other developments along Byrnes Street. The open nature of the buildings (except the Plant Room) reduces the perception of visual bulk as the buildings are open end to end and can be seen through.
For assessable development		
Building design		
PO6 Building facades are appropriately designed to: <ul style="list-style-type: none"> (a) include visual interest and architectural variation; (b) maintain and enhance the character of the surrounds; (c) provide opportunities for casual surveillance; (d) include a human scale; and (e) encourage occupation of outdoor space. 	AO6 Buildings include habitable space, pedestrian entrances and recreation space facing the primary road frontage.	Complies, The site has been designed to ensure appropriate pedestrian entrances with the proposal addressing the primary street frontage, being Byrnes Street. The proposal is considered to be appropriately designed ensuring visual interest and architectural variation while encouraging occupation of outdoor space. The proposed Car Wash open plan layout ensures that casual surveillance is always provided.
PO7 Development complements and integrates with the established built character of the Low density residential zone, having regard to: <ul style="list-style-type: none"> (a) roof form and pitch; (b) eaves and awnings; (c) building materials, colours and textures; and window and door size and location.	AO7 No acceptable outcome is provided.	The proposal is considered to enhance the visual amenity of the area through building materials and colours. While the proposal is for a Commercial Use, the building and colours are appropriate for the immediate vicinity and surrounding area and will complement the adjacent Commercial Buildings. It is considered that the proposed development will continue to compliment the established commercial development along Byrnes Street and will also complement the existing Low Density Residential Zone. Whilst complementing the existing colour scheme of many of the existing residential/commercial buildings in the general area.
Non-residential development		
PO8 Non-residential development is only located in new residential areas and: <ul style="list-style-type: none"> (a) is consistent with the scale of existing development; (b) does not detract from the amenity of nearby residential 	AO8 No acceptable outcome is provided.	Complies, The proposal is consistent with the scale of existing development within the immediate vicinity of the site, being along Byrnes Street. As the proposal fronts the main entrance to Mareeba, it is considered to enhance the visual

Performance Outcomes	Acceptable Outcomes	Comment
<p>uses;</p> <p>(c) directly supports the day to day needs of the immediate residential community; and</p> <p>(d) does not impact on the orderly provision of non-residential development in other locations in the shire.</p>		<p>amenity and streetscape. The proposal is not considered to significantly detract from the amenity of nearby residences and provides a Use that directly supports the day to day needs of not only the immediate Residential Community but also the wider Residential Community of Mareeba.</p> <p>The proposal will not impact on the orderly provision of non-residential developments in other locations of the Shire as the proposal is considered to fit in with the Commercial Uses provided along Byrnes Street, linking those adjacent to and opposite the site.</p>
Amenity		
<p>PO9</p> <p>Development must not detract from the amenity of the local area, having regard to:</p> <p>(a) noise;</p> <p>(b) hours of operation;</p> <p>(c) traffic;</p> <p>(d) advertising devices;</p> <p>(e) visual amenity;</p> <p>(f) privacy;</p> <p>(g) lighting;</p> <p>(h) odour; and</p> <p>(i) emissions.</p>	<p>AO9</p> <p>No acceptable outcome is provided.</p>	<p>Complies,</p> <p>The proposal is for the facilitation of a Car Wash. It is not considered that the proposed Car Wash will detract from the local amenity and is expected to enhance the visual amenity by providing a state-of-the-art car washing facility that is visually appealing. It is considered that the proposal will complement the township of Mareeba while providing a Use supporting the needs of the Mareeba Residents.</p>
<p>PO10</p> <p>Development must take into account and seek to ameliorate any existing negative environmental impacts, having regard to:</p> <p>(a) noise;</p> <p>(b) hours of operation;</p> <p>(c) traffic;</p> <p>(d) advertising devices;</p> <p>(e) visual amenity;</p> <p>(f) privacy;</p> <p>(g) lighting;</p> <p>(h) odour; and</p> <p>(i) emissions.</p>	<p>AO10</p> <p>No acceptable outcome is provided.</p>	<p>Complies,</p> <p>The proposal is for a Material Change of Use for a Car Wash. It is not considered that the proposed development will detract or negatively impact on the existing environment. The proposal will enhance the amenity along Byrnes Street and takes into consideration and seek to ameliorate the existing environment as demonstrated by the proposed layout. The supporting material to the proposed development demonstrates that the proposal takes into account and negates all possible impacts that are considered relevant and could cause negative effects over the site.</p>

Setbacks

The site contains dual frontages to both Byrnes and Lerra Streets. The structures are setback a minimum of 12.5 metres (average of 14.9 metres) from Byrnes Street which is substantially greater than the required 6 metres. However, the proposal provides setbacks fronting Lerra Street ranging from 0.775 metres to 2.1 metres with an average setback of 1.54 metres. While this is understood to be less than the minimum 3 metre setback to the secondary road frontage the proposal is considered to meet the Performance Outcome as the

buildings/structures allow the access to sunlight and daylight for the site and adjoining site from the secondary frontage as the structures are open-ended and are not fully enclosed which also ensures that air circulation and the access to natural breezes are obtained. Due to the irregular angled shaped rectangular block (along the Lerra Street frontage) and the rectangular nature of the wash bays; it is inevitable that one edge of the wash bays would be closer to the side boundary of the site (i.e. Lerra Street) than the other. The wash bay widths have been reduced where practical to maximise this minimum offset distance and ensures that an appropriate level of privacy is provided while guaranteeing opportunities for casual surveillance of any adjoining public spaces. The layout of the site and proposed Use of the structures ensure to mitigate against any bulky amenity of the proposed structures. It is noted that while the structures are located within 3 metres of the secondary road frontage, the provision of landscaping and pleasing colour scheme additionally lessens the bulky amenity of the site and allows for an acceptable relationship with the road corridor of Lerra Street.

The proposal is for a Commercial Use within a Low Density Residential Zoned Area with the site adjoining Low Density Residential Allotments to the north and west. It is noted that the adjoining allotment to the north is currently being used commercially as Professional Offices for Mareeba Accounting and Tax. The proposed Car Wash is provided with a zero metre setback to both the North and West boundaries which is less than the required 2.0 metre setback. However, the Car Wash site has been specifically designed and incorporated to ensure the greatest amenity while ensuring the least amount of disturbance to the adjoining allotments. The provision of an acoustic fence and concrete panel walling along the boundary achieves the Performance Outcomes nominated within P03 – Siting (above) and will ensure that an acceptable level of amenity is provided with the proposed Car Wash. This is further supported by the EcoAcoustics Report that concludes that the site can comply with the Noise Criteria set out in the EPP for all time periods at nearby residential receivers. It is noted that as an additional aspect of visual amenity, the adjoining concrete panel walls will be painted/finished by the owners of the Car Wash with colours selected by the respective adjoining landowners.

It is not considered that the proposed development is in conflict with the Intent and Purpose of the Low Density Residential Zone Code and the proposal is considered acceptable.

Commercial Activities Code

9.3.2.3 Criteria for assessment

Table 9.3.2.3—Commercial activities code – For self-assessable and assessable development

Performance outcomes	Acceptable outcomes	Comments
For self-assessable and assessable development		
PO1 Buildings are finished with high quality materials, selected for their durability and contribution to the character of the area.	AO1 Building design does not incorporate: <ul style="list-style-type: none"> (a) highly reflective materials such as high performance glass or untreated galvanised metals; or (b) unrelieved, unpainted or un-rendered finishes; or (c) unarticulated concrete finishes; or (d) unarticulated cladding systems; or (e) fluorescent or iridescent paints; or (f) use of single colour or surface treatment. 	Complies, The proposal development, as demonstrated on the TMC Building Design Group's Plans, ensures that a high level of finish is provided to all structures. The proposal is considered to be durable and of high quality contributing to the character of the area and in particular along Byrnes Street.

Performance outcomes	Acceptable outcomes	Comments
If for Sales office		
PO2 A Sales office is compatible with the built form, character and amenity of the surrounding area, having regard to: <ul style="list-style-type: none"> (a) duration of use; (b) size and scale; (c) intensity and nature of use; (d) number of employees; and (e) hours of operation. 	AO2.1 The Sales office is limited in its duration to a period not greater than: <ul style="list-style-type: none"> (a) 2 years, where involving selling or displaying land or buildings (including a dwelling house, multiple dwelling, commercial or industrial buildings); or (b) 6 months, where involving land or buildings that can be won as a prize. AO2.2 The Sales office does not exceed 100m ² gross floor area. Note—The Sales office may be located within part of a Dwelling house, Dual occupancy or Multiple dwelling for sale or that can be won as a prize. AO2.3 No more than 3 employees work within the sales office at any one time. AO2.4 The Sales office does not operate outside the hours of 8.00am to 6.00pm.	Not Applicable. No Sales Office proposed.
PO3 A Sales office is located to be accessible to visitors.	PO3 The Sales office is established at the entrance to: <ul style="list-style-type: none"> (a) the estate or stage of the estate where involving multiple properties or dwellings; or (b) the building or land where involving a single property or dwelling. 	Not Applicable. No Sales Office proposed.
For assessable development		
Visual amenity and character		
PO4 Commercial activities protect and enhance the character and amenity of the locality and streetscape through the appropriate location and screening of: <ul style="list-style-type: none"> (a) air conditioning; (b) refrigeration plant; (c) mechanical plant; and (d) refuse bin storage areas. 	AO4 No acceptable outcome is provided.	Complies, Appropriate screening and refuse storage areas are provided within the proposed development of the site and is located in the rear north-eastern corner of the site.
Location and size		
PO5 Commercial activities are located and designed: <ul style="list-style-type: none"> (a) to be commensurate to the scale and nature of land uses located and intended to be located in the immediate vicinity; and 	AO5 No acceptable outcome is provided.	Complies, The proposed Commercial Activity is located along Byrnes Street which contains a number of Commercial Activities with the proposed Car Wash of an appropriate scale and nature that is provided consistent with the intent of

Performance outcomes	Acceptable outcomes	Comments
(b) consistent with the intent of the activity centre hierarchy for Mareeba Shire.		the activity centre and the Mareeba Central Business District. The proposal is similar of scale and is considered to compliment the immediate and adjoining Commercial Activities along Byrnes Street.
If for Service station or Car wash		
PO6 The site is of a suitable size, shape and configuration to accommodate all aspects of the use, such as: (a) the building/s and associated storage areas; (b) any ancillary activities; (c) fuel delivery and service vehicles; (d) vehicle access and on site manoeuvrability; and (e) landscaping.	AO6.1 The site has a: (a) minimum area of 1500m ² ; and (b) minimum frontage of: (i) 30 metres to each road where the site is a corner site; or (ii) 40 metres otherwise. AO6.2 Bulk fuel storage tanks are situated on the site no closer than 8 metres to any road frontage. AO6.3 Bulk fuel storage tanks are situated on the site: (a) so that fuel delivery vehicles are standing wholly within the site when discharging fuel into the tanks; and (b) ensuring that the movement of other vehicles on the site is not restricted when fuel delivery occurs. AO6.4 Fuel pumps, car wash bays and facilities including air and water points are: (a) orientated to minimise vehicle conflicts associated with manoeuvring on site; and (b) located so that vehicles using or waiting to use the facilities are standing wholly within the site and in locations which do not restrict the movement of other vehicles on the site.	Complies, The proposal is for a Car Wash on the corner of Byrnes and Lerra Streets containing a combined frontage of 77 metres. The site has an area of 1,381 m ² which is slightly smaller than the required 1,500 m ² but is considered more than large enough and suitably sized and shaped for the proposed Car Wash Use. The proposal is not for a Service Station nor will any bulk fuels be stored onsite. The site contains the provision of Landscaping of approximately 10% as nominated on the Proposed Plans. The Plans also demonstrate that vehicle access and manoeuvrability is accommodated with each vehicle able to enter and exit the site in a forward gear. The proposal is not considered to be in conflict with the Car Wash requirements of the Commercial Activities Codes and is considered appropriate and acceptable.
PO7 The use must provide for the collection, treatment and disposal of all solid and liquid wastes such that: (a) the off-site release of contaminants does not occur; and (b) there are no significant adverse impacts on the quality of surface water or ground water resources.	A07 No acceptable outcome is provided.	See Comment Below.

In relation to Waste Effluent Disposal, Freshwater Planning Pty Ltd has been provided with the following from the TMC Building Design Group:

Waste effluent disposal for the site will be via gravity feed pipe/pit system to the appropriate sewer connection with the permission of the local Water Authority.

Silt pits will be installed in each Self-Serve Wash Bay, then ran through a Petrol/Oil Interceptor Pit, then ran into the Holding Pit prior to passing through the final Oil Separator and being discharged to the site's sewer connection point at the relevant location. Recycling of waste water from the Self-Serve Wash Bays is not encouraged or actually achievable since the effluent water that is being produced from these bays is not bacteria free; this is the common practice in car wash developments.

A Silt pit will be installed in the Automatic Wash Bay which is connected into a series (three in total) of twin Reclaim Pits, and then directed into the future recycling system located in the Plant Room. Overflow effluent from the final Reclaim Pit and waste from the future recycle system will be connected into the Holding Pit, and ran through the final Oil Separator prior to being discharged from site to the approved sewerage connection point.

For the effluent recycling from the Automatic Wash Bay to occur allowance for the "Con-Serv Water Recovery System" equipment (or other similar approved recycling equipment) has been made (refer attached brochure). The brochure outlines the primary filtration system and Ozone re-circulation system used during the effluent recycling process.

The Car Wash will operate as a five-star water rated Car Wash. The Car Wash equipment used at this facility is rated under the Car Wash/State Government water rating scheme.

Silt pits between all Self-Serve Wash Bays are interconnected with pipes to prevent any overflow of effluent water escaping from the wash bays. Particular attention has been given so that no effluent escapes from the wash bay areas and discharges into the stormwater system; achieved by giving all wash bays a 100-150mm minimum fall from outside of the bay to the central silt pit in the centre of the respective bay.

A trade waste discharge licence will be obtained from the responsible Authority after the Development Application has been granted and we ask that this application be issued with a condition of obtaining this Trade Waste Discharge Licence. It is impractical to apply for this licence at this stage since the proposed development (i.e.: the actual number of Automatic/Self-Serve Car Wash Bays) has not been approved and the application relies on knowing the actual breakdown of Automatic/Self-Serve Car Wash Bays as their discharge rate varies.

The proposed design of this Car Wash development represents a small-scale development that has mitigated all possible negative effects of acoustics, traffic, stormwater/effluent disposal, visual bulk, etc. that is achievable. The development has been sighted as best as practical to minimise building areas, maximise traffic queuing areas, create safe flow paths of vehicles/pedestrians around the site whilst maintaining the functionality of the Car/Dog Wash practice. The site is very open, giving customers good visibility throughout and reducing the visual bulk of the overall structure.

The proposed development for a Car Wash is not in conflict with the Commercial Activities Code and is considered to meet the Intent and Purpose of the Code in particular the Car Wash requirements. The proposed development is considered to be acceptable and appropriate.

Airports Environs Overlay Code

The site is located inside of the 8km Bird and Bat Zone of the Bird and Bat Strike Zones and outside the 6 km Light Intensity and OLS on the Mareeba Overlay Mapping. The proposal is not considered to contribute to the potentially serious hazard from wildlife (bird or bat) strike and will ensure that potential food and waste sources are covered and collected so that they are not accessible to wildlife. It is considered that the Airports Environs Overlay Code is Not Applicable to the proposed Material Change of Use for a Car Wash as the site is located outside the OLS and 6 km Light Intensity and will not affect the Bird and Bat Strike Zone.

Advertising Devices Code

The proposed development is for the provision of a Car Wash including a Freestanding Sign located along Byrnes Street, Mareeba. The existing site was provided with an Advertising Device (Freestanding Sign) fronting Byrnes Street with the adjoining northern Low Density Residential Allotment also containing an Advertising Device in the form of a Freestanding Sign. The proposed Material Change of Use proposes an Advertising Device (Freestanding Sign) that is 4.15 metres in height and located fronting Byrnes Street. The Advertising Device is not internally illuminated nor does it contain flashing lights or moving text. The proposed device is as per nominated on the Proposed Site Layout and will be of a steel panel fixed construction with wording on both sides. The Device is designed and sited to maintain the efficient function of Byrnes Street and is not considered to impede safe vehicle and pedestrian movements. The proposed Advertising Device has been designed to avoid visual clutter, while allowing for the identification of the premises and Use. The Freestanding Sign is similar to Advertising Devices within the immediate and surrounding vicinity, in particular to that of Mareeba Mitsubishi and Mazda, BP Service Station, Roofing and Shed company and the adjoining Mareeba Accounting and Tax. The proposed Advertising Device is a replacement of the existing Freestanding Device located onsite and while is located within an immediate vicinity of Advertising Devices provided along Byrnes Street, a State Controlled Road, the Device is not considered to impact on the safety and efficiency of the existing Road Network and is appropriate and acceptable.

Landscaping Code

The proposed development is for the facilitation of a Car Wash located at 308 Byrnes Street, Mareeba. The proposal provides for Landscaping totalling in area of 134 m² which equates to 9.7%. The approximate 10% Landscaping is provided along the frontages of the site and ranges from 1.0 metre to 11.5 metres in width with an average width of 5.55 metres (generally average of 2.57 metres) and 2.37 metres to Byrnes and Lerra Streets, respectively. The Landscaping Plan nominates the preferred plant species which is understood to comply with the requirements of the Planning Scheme Policy. Landscaping is an important feature of a corner site, the proposed landscaping has been sourced from a local plant nursery to ensure that readily available and suitable plant species are planted. Plantings of various species, colour scheme, densities and heights have been selected to create a visually attractive site. The development will require a number of existing trees to be removed, but the proposed landscaping will create a formal strategic landscaping approach for the developed site instead of randomly located vegetation of varying species. The nominated Landscaping is considered to contribute to the Landscaping character of the Shire, complimenting the immediate surrounds and surrounding vicinity. The Landscaping provides for an attractive streetscape and assists in breaking up and softening the built form of the proposed Car Wash. Appropriate Acoustic Fencing is also provided where necessary to the adjoining allotments. It is considered that the nominated plants have been purposely provided to ensure suitability of the intended Car Wash Use and does not include the provision of invasive weeds. The proposed Landscaping is considered appropriate for the proposed Car Wash Use ensuring that these areas are easily maintained while allowing for casual surveillance and enhance the safety of pedestrians through the Crime Preventions Through Environmental Design (CPTED) principles.

The TMC Building Design Plans include a Landscaping and Lighting Plan depicting the selected plant species and appropriate spacings along with any mulching, soils, garden beds and weeding requirements for the proposed development. It is noted that the planting of large trees on Car Wash sites is not encouraged due to the dropping of leaves and also reducing the visibility into the site from the surrounding streets. All proposed in bay and site lighting has been shown on the Proposed Landscaping & Lighting Plan, with the Lighting Schedule specifying the light type and wattage. All wall lights will be fitted with suitable baffle devices that prevent light from spilling into the adjoining properties; this practice is common in all Car Washing facilities. All external lighting will be fitted with a light sensing device that will only operate once the natural light falls below a certain level. For non-operating hours only necessary security lighting will remain on.

The proposed Landscaping will ensure to enhance the visual appeal and aspect of the proposed development. It is considered that the proposed development complies with the Purpose and Intent of the Landscaping Code.

Parking and Access Code

The site contains dual frontages to the existing Road Network, being Byrnes and Lerra Streets with existing crossovers provided from both Byrnes Street and Lerra Street. The proposed development also offers access via both Byrnes and Lerra Streets, replacing the existing crossovers with two concrete crossovers 6.0 metres in width, and relocating the Lerra Street access further away from the Byrnes Street intersection to improve siting and network connectivity. It is understood from the internal layout that the general traffic flow is designed that vehicles enter the site from Byrnes Street and exit via Lerra Street as demonstrated by lined and directional arrow markings (so customers know what lane to be in and the direction to travel), painted lane markings stating "Auto Wash Bay Entry". The proposal has been designed that Byrnes Street is to be provided as Entry Only and Lerra Street comprises of ingress and egress (Entry/Exit) with Entry only to the Vacuum Bays/Dog Wash access, and Exit from all bays. Attached to this Submission are Plans demonstrating swept paths, traffic queuing and parking that clearly establishes that particular attention has been provided in designing the proposed Use. The Site Analysis provided on the Proposed Site Layout Plan nominates that an Employee Car Park is provided onsite with five (5) spaces provided within the Car Wash Bays along with a minimum of queuing for thirteen (13) vehicles in addition to the four (4) spaces provided in the Vacuum/Dog Wash Bays.

The dimensions of existing car parking spaces within the structures can satisfy the requirements of Australian Standard AS2890.1 and all parking spaces/driveway areas are appropriately sealed. It is considered that the proposed development is not in conflict with the Purpose or Intent of the Parking and Access Code and is acceptable.

Works, Services and Infrastructure Code

The proposal is for a Material Change of Use for the facilitate the construction of a Car Wash in the Low Density Residential Zone of the Mareeba Shire Council's Planning Scheme. The site is connected to all available urban services with no change to the servicing currently proposed however, the proposal does integrate the provision of Rainwater Tanks and it is further understood that the owner proposes to install solar power infrastructure to further demonstrate the site's commitment to environmentally friendly development.

The proposed development will have suitable stormwater drainage facilities installed (i.e. box and eaves gutters, down pipes, pipes, strip drains, pits etc). The on-site drainage system has been designed for a pre-development storm of 1 in 10 years for a 5 minute duration, and a post-development storm of 1 in 10 years for a 10 minute duration (critical duration storm event). There is a series of three (3) 5,000L rainwater tanks that will capture the majority of the roof water from the buildings on the site (can be re-used in the car washing process) which will restrict the post site discharge to the pre-development 1 in 10 year storm event flows. The site will discharge in accordance with Council's nominated point of legal discharge (i.e.: to the existing kerb and channel along Byrnes and Lerra Streets). Due to the site's natural slope, multiple discharge points are required

(as shown on the proposed plans) unless additional fill is placed over the site to gain more fall to reduce the amount of discharge locations. By having the three discharge locations the number of required drainage pipes on-site is reduced and stormwater discharge volumes and flows are divided which will reduce in minimising any impact to the surrounding streets. This and further details are provided on Sheet 6 – Stormwater and Sewerage Plan of the TMC Building Design Group Proposal Plans and attached computations.

The proposed development is considered to contain suitable stormwater drainage facilities installed as mentioned above reducing the sites stormwater discharge considerably. The site will discharge in accordance with Council's nominated point of legal discharge.

The site is provided with a gentle slope as demonstrated on the Existing Conditions Plan and Excavation and Filling will be required onsite but will be limited to site preparation, levels and internal servicing. It is understood that any Excavation or Filling onsite require for the proposal to achieve the required Finished Surface Levels (FSL) of the driveway payment from the Natural Ground Levels (NGL) is depicted on the Elevations Plans provided on Sheets 3 and 4 of the TMC Building Design Group Proposal Plans.

The proposed development proposes access via both Byrnes and Lerra Streets, replacing the existing crossovers with two concrete crossovers 6.0 metres in widths, and relocating the Lerra Street access further away from the Byrnes Street intersection to improve siting and network connectivity.

It is considered that the proposed Car Wash is not in conflict with the Purposes of the Works, Services and Infrastructure Code. The proposal is considered acceptable and appropriate.

Conclusion

It is considered that the proposed development being a Material Change of Use to facilitate the construction of a Car Wash over land described as Lot 2 on M35663 is appropriate. The proposed design of this Car Wash development represents a small-scale development that has mitigated all possible negative effects of acoustics, traffic, stormwater/effluent disposal, visual bulk, etc that is achievable. The development has been sighted as best as practical to minimise building areas, maximise traffic queuing areas, create safe flow paths of vehicles/pedestrians around the site whilst maintaining the functionality of the Car/Dog Wash practice. The site is very open, giving customers good visibility throughout and reducing the visual bulk of the overall structure. In particular, the proposed development:

- Is not in conflict with the Intent or Purposes for land designated in the Low Density Residential Zone;
- Will encompass no significant negative impacts to the existing nature and amenity of the area, instead enhancing the amenity and character as the Material Change of Use provides an attractive (additional) local service to support the Residential population within the immediate vicinity, surrounding environs of Mareeba;
- Can meet the Performance Outcomes and the Purpose of the Commercial Activities Code, in particular the Car Wash requirements, for the proposed Use;
- The Material Change of Use is for the construction of a Car Wash along Byrnes Street ensuring additional Commercial Activities that supports the surrounding Mareeba Township and environs. This helps to cement Mareeba as a Major Urban Area and Regional Centre of the Tablelands;

- Provides for appropriate and acceptable level of servicing without compromising the environmental values of the Shire and Mareeba with the proposed development integrating best water practices and the provision of solar power to further demonstrate the site's commitment to environmentally friendly development;
- Meets the Objective of the Land Use Policies relating to of Urban Development for Urban Uses within the Urban Footprint Designation of the FNQ Regional Plan 2009-2031, providing necessary services to cater for and support the ever-growing population; and
- Provides for a five-star Car Wash Facility that is environmentally friendly supporting and serving as a much needed day-to-day community facility in the local area catering for local residents and visitors to Mareeba.

Freshwater Planning Pty Ltd request that Council provide a copy of the Draft Conditions with sufficient time for review prior to issuing a Decision Notice over the site, or tabulating and Item on the Agenda. If you have any queries please do not hesitate to contact Freshwater Planning Pty Ltd.

Yours faithfully,



MATTHEW ANDREJIC

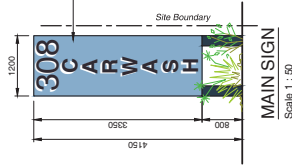
FRESHWATER PLANNING PTY LTD

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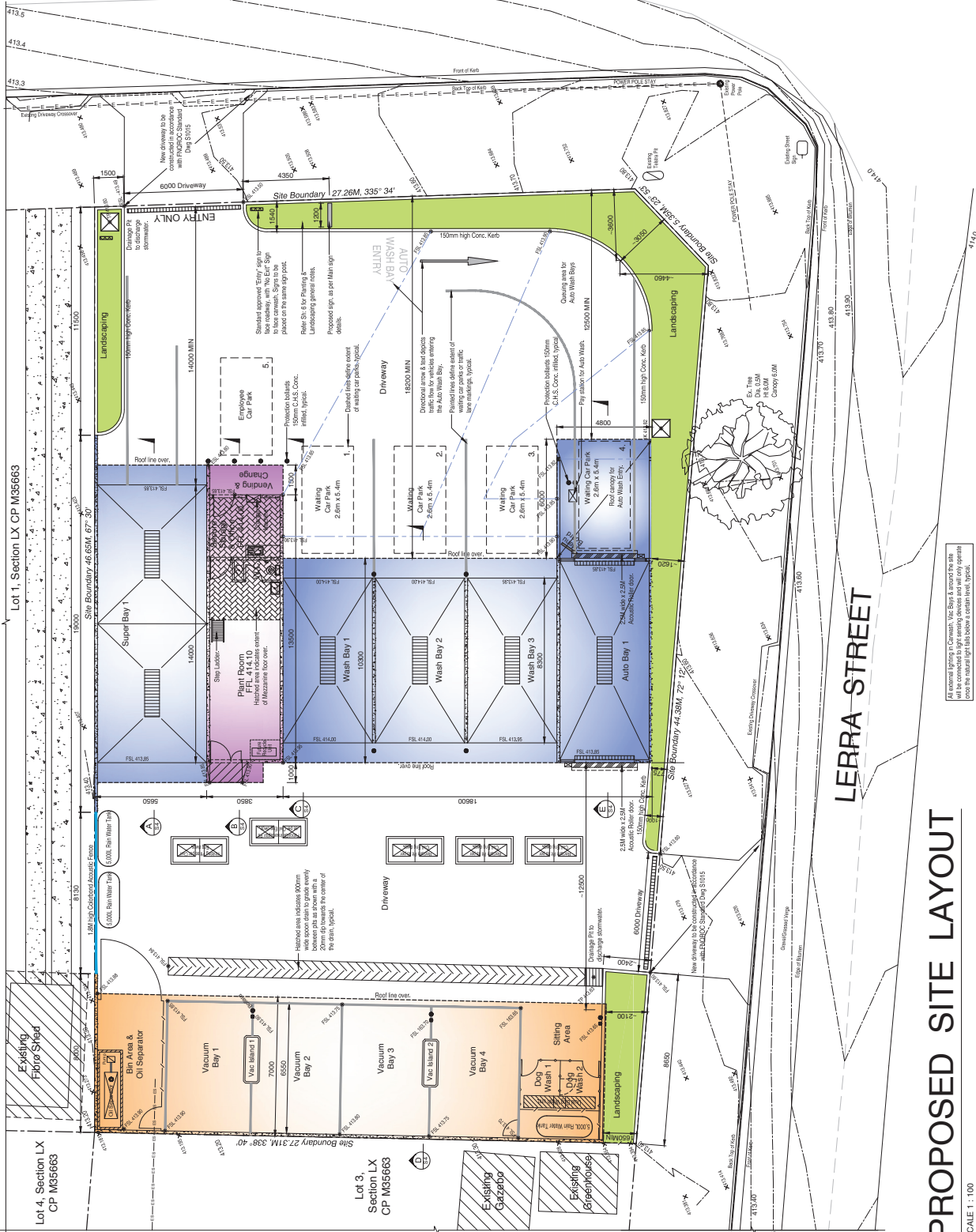
E: FreshwaterPlanning@outlook.com

17 Barron View Drive, FRESHWATER QLD 4870

SITE ANALYSIS	
BUILDING TYPE - CAR WASH	ROOF AREA
Wash Bay Roof Area	282 M ²
Auto Wash Entry Canopy Roofed Area	29 M ²
Secure Storage/Plant Room Roofed Area	52 M ²
Plant Room Entry Door Roofed Area	3 M ²
Vending Change Roofed Area	6 M ²
Vacuum Bay Dog Wash Roofed Area	110 M ²
Landscaped Area	134 M ²
5 Car Spaces	5 Car Spaces
Car spaces provided in Carwash Bays	13 Car Spaces
Car spaces provided in Vacuum/Dog Wash Bays	4 Car Spaces
Car space provided for Employee	1 Car Space
Trailer Roofed Area	552 M ²
Site Area	1,300.4 M ²
Percentage Site Coverage - Car Wash	40%
Percentage Site Coverage - Landscaping	9.7%
CARWASH & VACUUM BAY AREA MATERIALS SCHEDULE	
Walls	Concrete panels with painted finish
Floor	Steel deck roof placed between 2" - 5" for all buildings. To drain into suitable sized gutters.
Facades	Steel panel cladding (or similar) to all facade trusses.
Doors	Commercial Security door + Solid core metal Car Security door to Secure Storage room. Security doors to Plant Room.
Roofing	Coloured zinc/alume
Ground	Coloured concrete in all Wash Bays & Vac Bays. Concrete in all Driveway areas.



BYRNES STREET



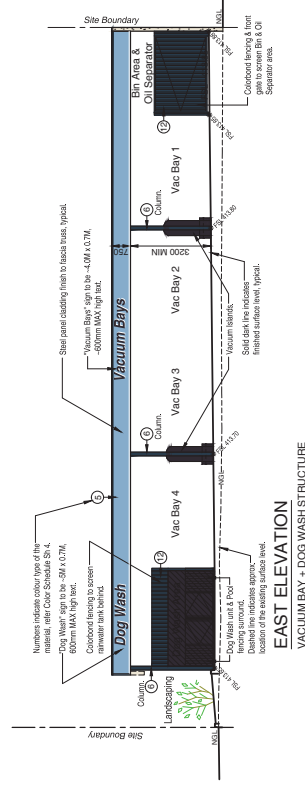
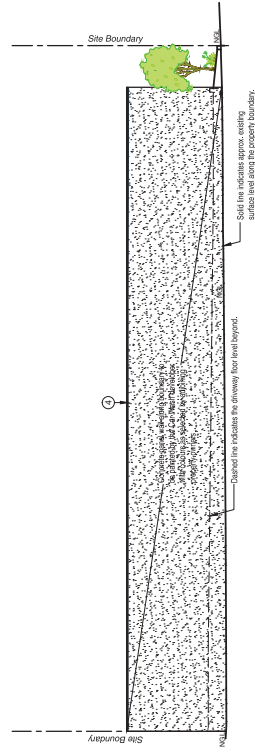
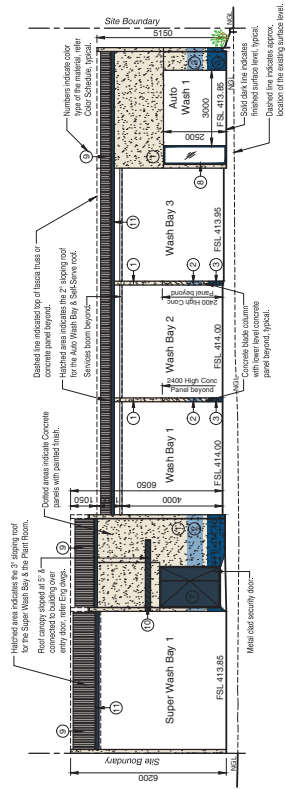
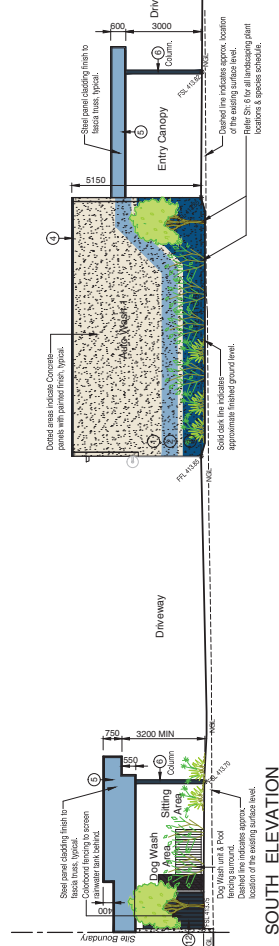
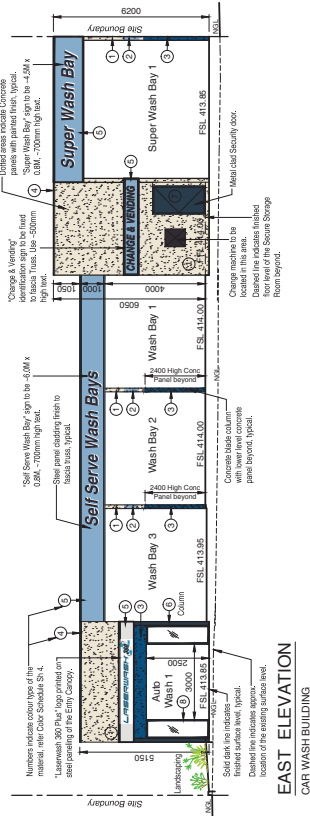
Existing layout of Carwash Vac Bay 1, around the site will be connected to light venting devices and will only operate once the natural light falls below a certain level, typical.

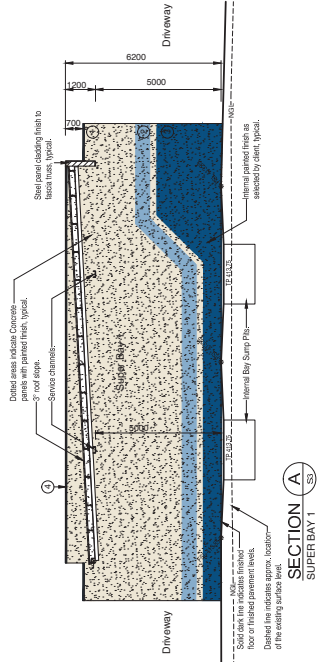
LERRA STREET

PROPOSED SITE LAYOUT

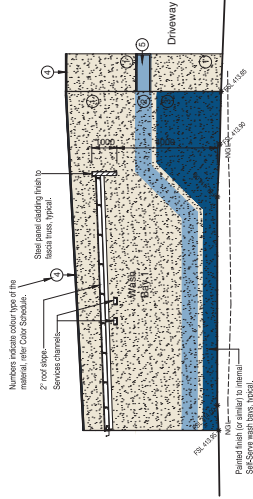
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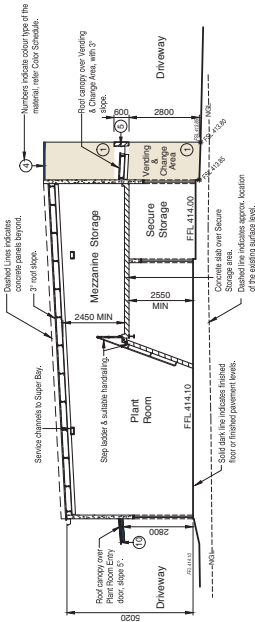
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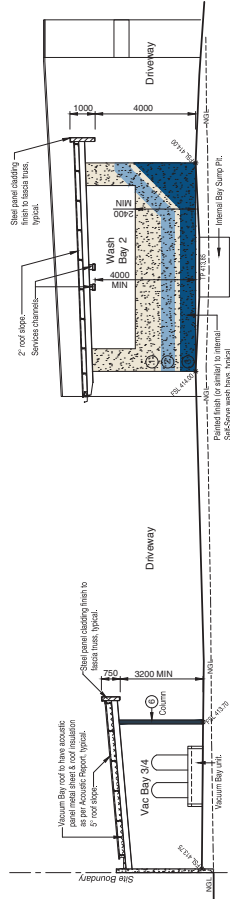
SECTION A
SUPER BAY 1



SECTION C
WASH BAY 1



SECTION B
PLANT ROOM



SECTION D
VACUUM BAYS 3/4 & WASH BAY 2

CAR WASH COLOUR SCHEDULE	
Concrete Panels	1. Off White/Cream
	2. Light Blue
	3. Dark Blue
Concrete Panel Capping	4. Dark Blue "Deep Ocean Blue" #
Fascia Truss Cladding	5. Cream "Surfmist" # - Top Capping
Columns	6. Cream "Surfmist" # - Side/Bottom Capping
Doors	7. Cream "Surfmist" # - Steel Flat Panel Cladding
Windows Framing	8. Dark Blue "Deep Ocean Blue" #
Roofing Sheeting	9. Cream "Surfmist" #
Gutters & Fascia Purlin	10. Dark Blue "Deep Ocean Blue" #
Wall/Fence cladding	11. Cream "Surfmist" # - Gutter
Blame/Purlins/Roof Sheeting	12. Dark Blue "Deep Ocean Blue" # - Fascia Purlin
	13. Cream "Surfmist" #
	14. Non-visible (Galvanised Steel)

Colour has been taken from the Colorbond steel range.

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PROPOSED
CAR WASH
DEVELOPMENT

AT: 308 BYRNES STREET,
MAREEBA, QLD, 4880
FOR: MAISEL AG PTY LTD ATTF
CHRIS MAISEL FAMILY TRUST

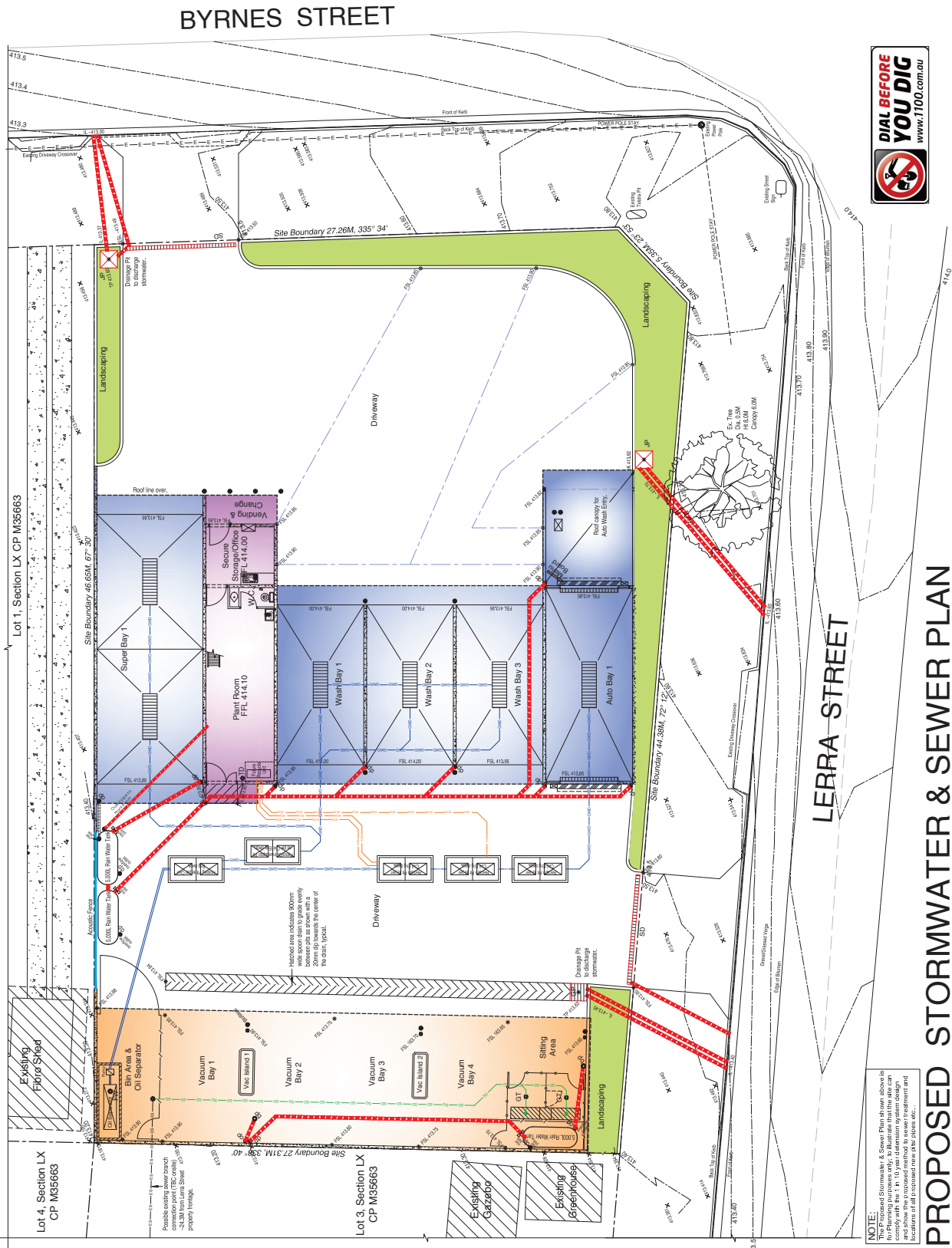
Drawn: T. MICHAELS
Designed: T. MICHAELS

TMC Building Design Group
P.O. Box 448, Mareeba, QLD 4880
Scale: 1:100 (A1) | Date: AUGUST 2017
Sheet No. 4 of 7 | Job No: 17-025 DA | A

LEGEND	
	New Stormwater Drainage
	Existing above ground Power
	Sanitary Drainage
	Grease Waste Drainage
	Recycled Water Pipe
	Existing Authority Sewer Pipe
	Pipe up
	Flow direction
	Gully Trap
	Turndown
	Floor Waste Grate
	Trap & Waste
	150mm Ø Down Pipe
	Authority Sewer Connection
	Existed location TBC
	Existing surface levels
	Finished surface levels
	300mm wide x 200mm MIN deep concrete strip drain
	SD
	Damage pits (Grated Pit/ Joints Pits)

WARNING:
The existing services shown on the plan have been derived from field survey or plotted from records of this nature and the responsibility of the contractor to verify on site the location of all services prior to the commencement of works.

EXISTING SURFACE LEVELS NOTE:
Existing site levels have been taken from documentation of this nature and the responsibility of the contractor to verify on site the location of all services prior to the commencement of works. This survey is to Meridian Level Datum PM95034-12.531

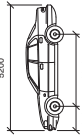


PROPOSED STORMWATER & SEWER PLAN

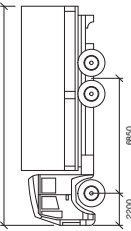
SCALE 1 : 100		© TMC Building Design Group 2017 This design is Copyright and may not be copied in whole or in part without the written consent of TMC Building Design Group. It is to be used for the purposes only as stated in the title block. Any other use without the written consent of TMC Building Design Group is prohibited. The client agrees to indemnify and hold TMC Building Design Group harmless from all claims, damages, costs and expenses, including reasonable legal fees, in connection with the use of this design for any purpose other than that for which it was intended. The client agrees to keep TMC Building Design Group informed of any changes to the design and to obtain the necessary approvals for any changes to be implemented.		<div>ISSUED FOR PLANNING APPROVAL</div> <div>NOT TO BE USED FOR CONSTRUCTION PURPOSES</div>				<div>PROPOSED</div> <div>CAR WASH</div> <div>DEVELOPMENT</div>		AT: 308 BYRNES STREET, MAREEBA, QLD, 4880 FOR: MAISEL AG PTY LTD ATF CHRIS MAISEL FAMILY TRUST		 TMC Building Design Group P.O. Box 564, Mareeba, QLD 4880 Scale: 1:100 (A1) Date: AUGUST 2017 Issue: 1	
Issued for Planning Approval	25-08-2017	DATE	22 AUG 2017 3:43 PM - T:\TMC\2017\17-025 DA Rev A.dwg	17-025 DA Rev A.dwg		Drawn: T. MICHAELS		Designed: T. MICHAELS		Sheet No: 17-025 DA A			
REVISIONS													

NOTE:
The Proposed Stormwater & Sewer Plan shown above is for information only and does not constitute a contract. It is the responsibility of the client to ensure that the plan is used in accordance with the relevant planning and building codes and to obtain the necessary approvals for any changes to be implemented.

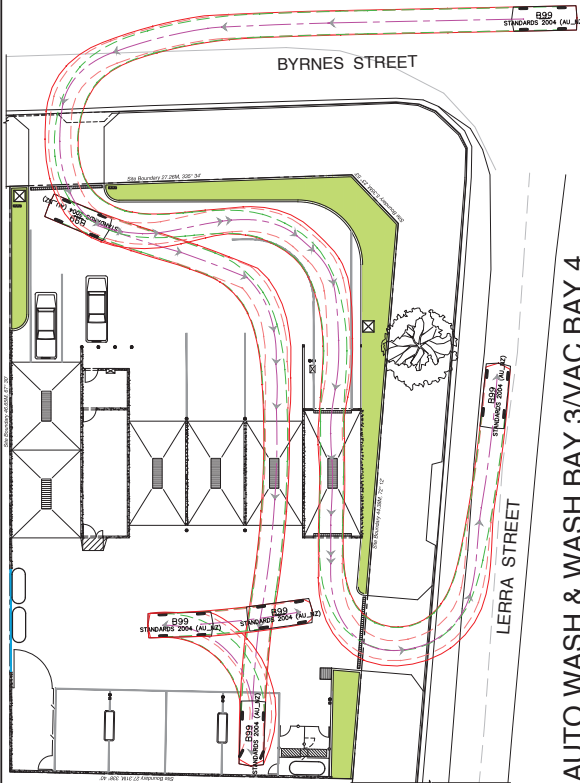
VEHICLE SWEEP PATH LEGEND	
	Path centreline
	Path of vehicle body
	Path of vehicle body envelope
	Vehicle body envelope
	Front tyre envelope
	Rear tyre envelope



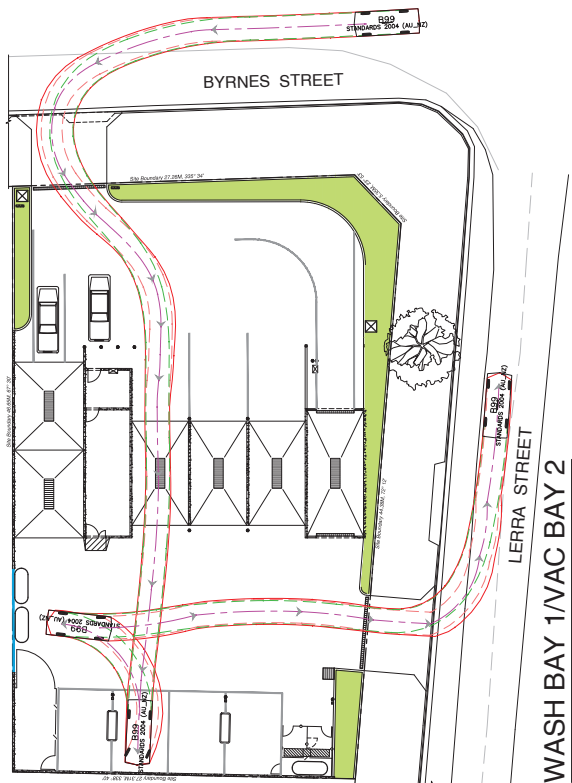
CAR - B99 Vehicle
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 Track : 1540mm
 Lock to Lock Time : 6.0 sec
 Steering Angle : 33.9°



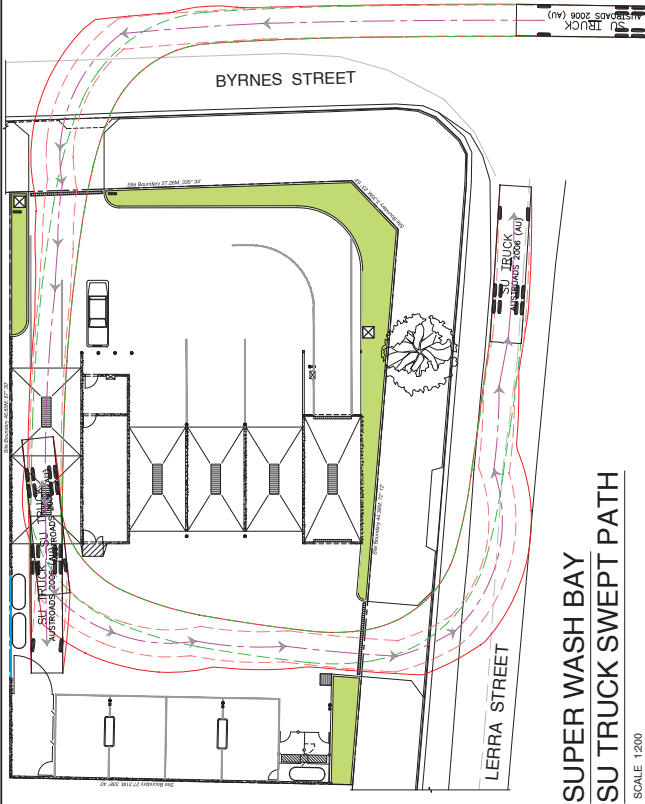
SU TRUCK
 Width : 2500mm
 Track : 2500mm
 Lock to Lock Time : 6.0 sec
 Steering Angle : 33.9°



**AUTO WASH & WASH BAY 3/VAC BAY 4
CAR SWEEP PATHS**
 SCALE 1:200



**WASH BAY 1/VAC BAY 2
CAR SWEEP PATHS**
 SCALE 1:200



**SUPER WASH BAY
SU TRUCK SWEEP PATH**
 SCALE 1:200



GENERAL CAR PARKING LAYOUT
 SCALE 1:200

NOTE:
 Vehicles shown parked in Bay 1 and driveway area are the 9th Floor vehicles (SU TRUCK 2006 (AU) long vehicle).

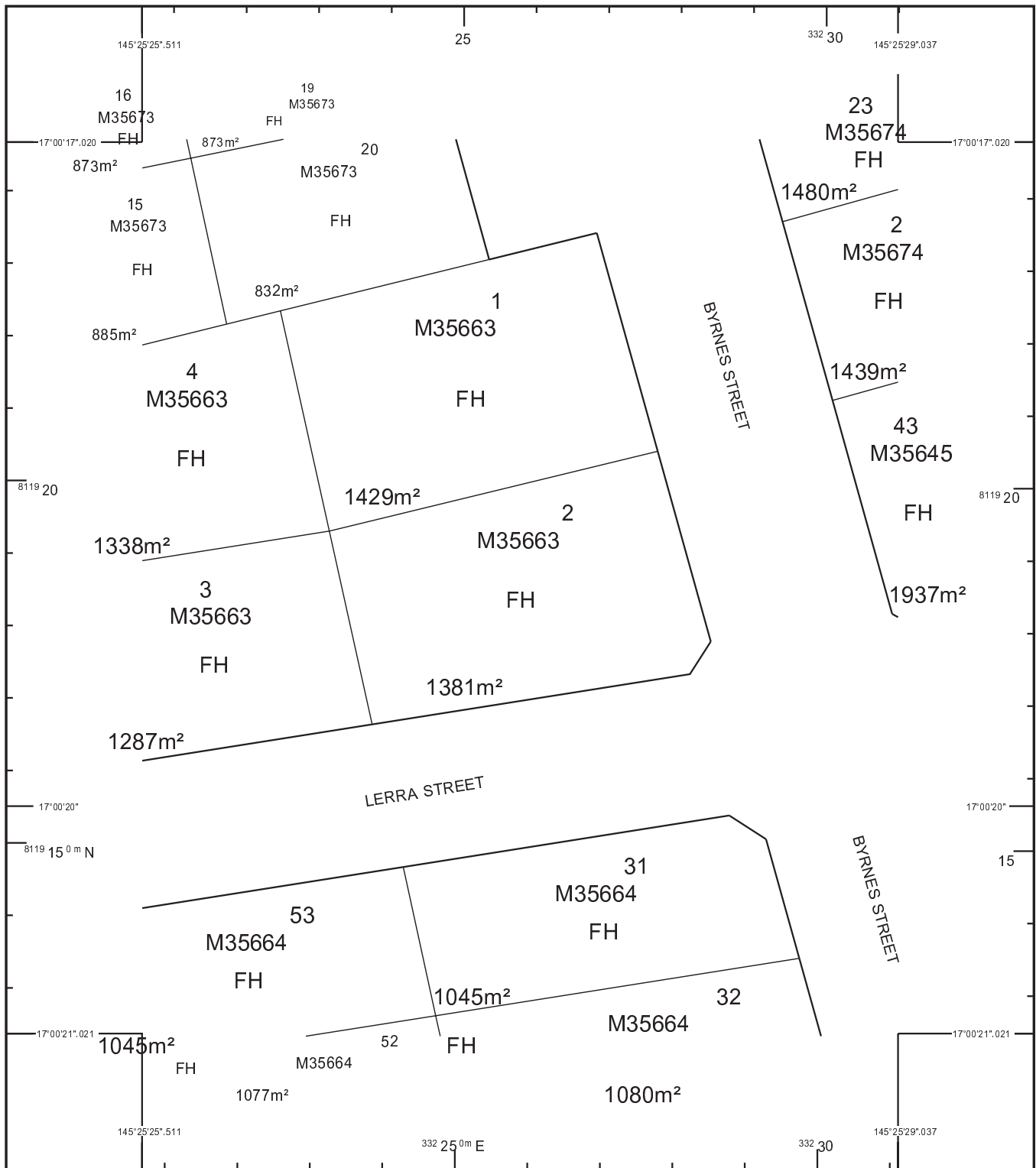
ISSUE	DESCRIPTION	DATE	REVISIONS
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**PROPOSED
CAR WASH
DEVELOPMENT**

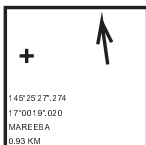
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 MAREEBA, QLD, 4880
 FOR: MAISEL AG PTY LTD ATTF
 CHRIS MAISEL FAMILY TRUST

Drawn: T. MICHAELS
 Designed: T. MICHAELS



STANDARD MAP NUMBER
7963-11411

MAP WINDOW POSITION &
NEAREST LOCATION



SUBJECT PARCEL DESCRIPTION

DCDB
Lot/Plan 2/M35663
Area/Volume 1381m²
Tenure FREEHOLD
Local Government MAREEBA SHIRE
Locality MAREEBA
Segment/Parcel 9087/21

CLIENT SERVICE STANDARDS

PRINTED (dd/mm/yyyy) 15/08/2017

DCDB 14/08/2017

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EcoAcoustics

Proposed Car Wash

308 Byrnes Street, Mareeba

Environmental Noise Assessment

6 September 2017

Report Number: 17060451 - 01a

www.ecoacoustics.com.au

ACN 135 697 095
4/47 Monash Ave
Como Western Australia 6152
Telephone: (08) 9367 1555





Report: 17060451 - 01a

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Document Information			
Author:	Rebecca Ireland	Verified:	Francis Prendergast
Position:	Company Director	Position:	Senior Consultant
Signature:		Signature	
Date of Issue:	6 September 2017		

Revision History				
Revision	Description	Date	Author	Checked



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Executive Summary

EcoAcoustics Pty Ltd was commissioned by Maisel AG Pty Ltd to conduct a noise impact assessment of a proposed car wash located at 308 Byrnes Street, Mareeba. This noise impact assessment report has been completed to support the proposal, as part of the development application. The purpose of this report is to assess the noise emissions from the site in accordance with the prescribed standards contained in the *Environmental Protection (Noise) Policy 2008*.

To ensure compliance with the EPP (Noise), the following recommendations are required to be incorporated into the proposed carwash:

- The proposed automatic car wash will be fitted with an automatic roller door on both the entry and exit, providing equivalent performance to the RAPID series 3500 (clear 2.5mm thick PVC) which provides a minimum R_w 23;
- All vacuum bays are required to be fitted with sound absorption in the vacuum “end cap”;
- Vacuum bays are required to be shut down from 10pm until 7am daily;
- The roof structure above the vacuum bays is proposed to be metal deck or similar, to minimise reverberation in this area, it is recommended that this be lined with insulation;
- The predictions include a 1.8 metre high acoustic barrier located along the property boundary between vacuum bays and superwash bay. This height is based on the finished ground height of the proposed car wash.

The results of the noise predictions show that the proposed alterations to the site can comply with the noise criteria set out in EPP (Noise) for all time periods at nearby residential receivers with the inclusion of the attenuation measures discussed in Section 6.



1 Introduction

EcoAcoustics Pty Ltd was commissioned by Maisel AG Pty Ltd to conduct a noise impact assessment of a proposed car wash located at 308 Byrnes Street, Mareeba. This noise impact assessment report has been completed to support the proposal, as part of the development application. The purpose of this report is to assess the noise emissions from the site in accordance with the prescribed standards contained in the *Environmental Protection (Noise) Policy 2008*.

Appendix A contains a description of some of the terminology used throughout this report.

1.1 Site Locality & Surroundings

The site and surroundings are shown in an aerial photo in *Figure 1.1*. The site is located at 308 Byrnes Street in Mareeba within the Mareeba Shire Council. The proposed site is currently an existing residential premises, with noise sensitive premises located to the east, south and west of the property. To the north of the site is a commercial premises. The nearest noise affected premises are denoted on *Figure 1.1* as R1 to R6.



Figure 1.1: Site and Surroundings (Source: Google Earth)

1.2 Site Layout

The proposed layout is shown on *Figure 1.2*. *Figures 1.3 & 1.4* present the site elevations.

The proposed site will comprise

- an automatic laser wash bay and associated mechanical plant;



- three standard manual wash bays;
- one superwash bay suitable for manually washing large vehicles;
- two small dog wash bays;
- four covered vacuum bays located on the western property boundary; and
- mechanical plant room located between the superbay and wash bay 1.

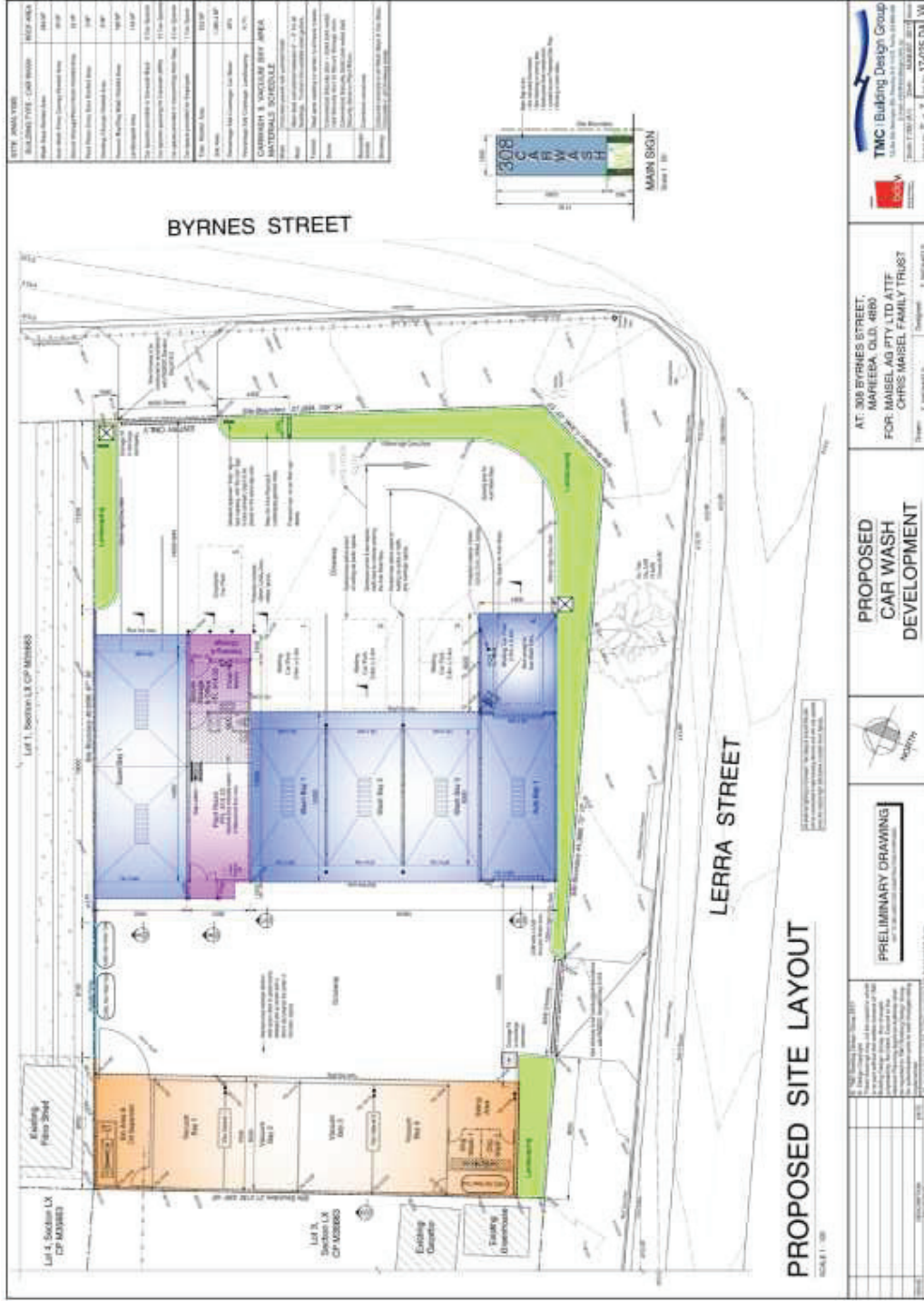
It is understood that the hours of operation for the site will operate from 24 hours per day 7 days per week however the vacuum bays will not operate during the night period.

The noise impacts associated with the site include:

- The automatic wash bay;
- The mechanical plant associated with the site;
- The vacuum bays;
- Manual wash bays (including super wash bay).

The following percentage breakdown of usage has been applied to determine the appropriate noise levels during the daytime and evening.

- Automatic wash bay – Daytime: 60% Evening: 25% Night 15%;
- Vacuum bays – Daytime: 70% Evening: 30% Night 0%;
- Superwash bay - Daytime: 60% Evening: 25% Night 15%;
- Manual wash bays - Daytime: 70% Evening: 30% Night 0%;



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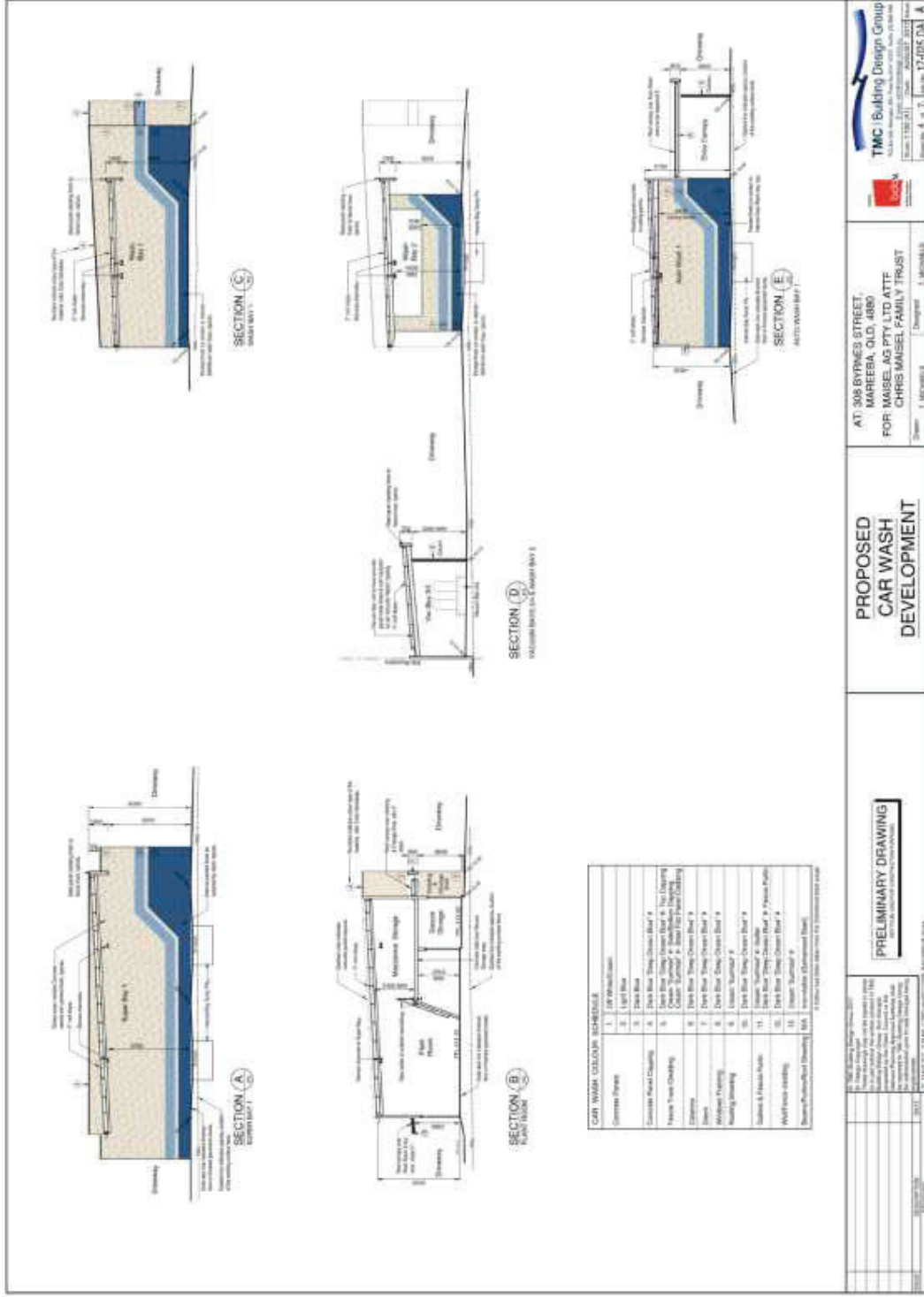


Figure 1.4: Proposed Elevations (source: TMC Design)



2 Noise Monitoring

2.1 Noise Measurement Methodology

Noise measurements were taken continuously over a six day period commencing Monday 19th June 2017. The following information was detailed:

- Measurements were completed on the site using a Type 2 Sound Level Meter, Rion NL21.
- The sound level meter holds current laboratory certificate of calibration, available upon request;
- The meter was calibrated before and after the measurements and was found to be within 0.1dB of the reference signal;
- The meter records both slow and fast time weighted sound levels, along with statistics throughout the measurement period, allowing relevant data to be collected;
- The microphone was fitted with a standard wind screen;
- During the measurements, the microphone was located at a height of 1.4 metres above the ground level and at least 3 metres from reflecting facades (other than the ground plane); as such no adjustments have been applied for reflected noise.

Average meteorological conditions at the time, recorded at the Bureau of Meteorology's Mareeba site, were:

- Temperature: 13.8 – 25.7°C
- Relative Humidity (avg): 72%

2.2 Ambient Noise Monitoring

The results of the noise logging is summarised in *Table 2.1*. *Figure 2.1* presents a chart of the measured noise levels.



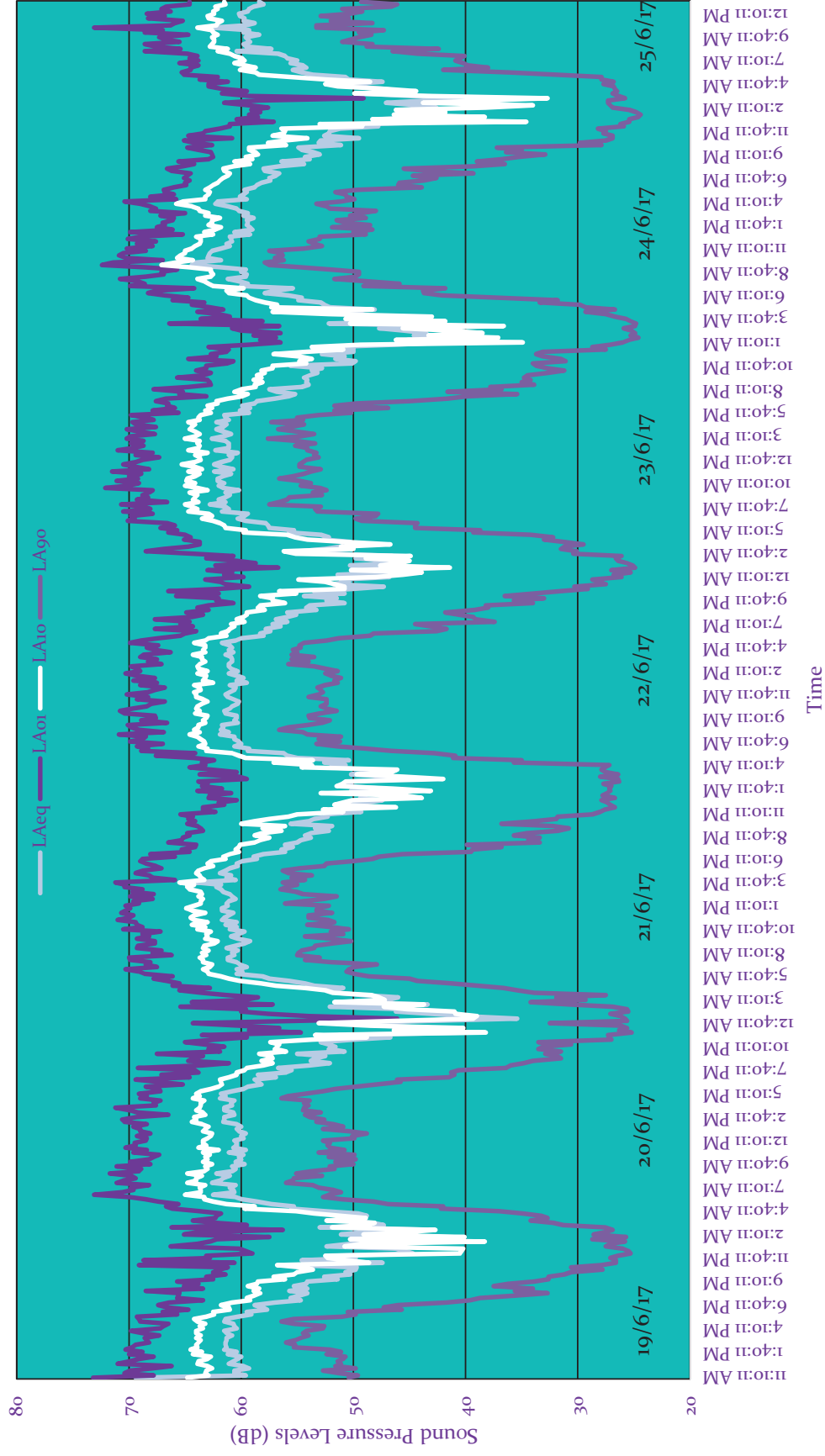
Table 2.1: Measured Average Noise Levels Noise Logging

Time of day	Measured Noise Level, dB (A)		
	L_{eq}	L_{10}	L_{90}
Day 7am to 6pm	61	63	51
Evening 6pm to 10pm	56	60	40
Night 10pm to 7am	52	51	30
Early Morning 5am to 7am	57	61	42

The noise logging includes road traffic noise from Byrnes Street, noise from the nearby car sales yard, residential noise including dogs barking and noise from other fauna. Owing to the climate in Far North Queensland, as a general rule of thumb, majority of businesses start earlier than other parts of the country, so that they can finish earlier to minimise the impact of the hot weather during the summer months. This is reflected in the noise levels measured during the 5am to 7am period, which has recorded average noise levels similar to the daytime period.



Figure 2.1 - Ambient Noise Monitoring Results, Byrnes Street, Mareeba
19th June to 25th June 2017





3 Criteria

3.1 Environmental Protection (Noise) Policy 2008

The Environmental Protection Act 1994 provides a framework for the management of noise in Queensland. The Environmental Protection (Noise) Policy 2008, EPP (Noise), specifically identifies the acoustic environmental values that are to be enhanced or protected. These values include:

- The protection of human health and wellbeing by ensuring a suitable acoustic environment for individuals;
- The protection of the amenity of the community;
- The protection of health and biodiversity of ecosystems.

There are two main considerations when assessing noise from sources such as car washes, namely

- The acoustic quality objective – noise levels that are conducive to human health and wellbeing, ensuring a suitable acoustic environment for individuals to sleep, study or learn, be involved in recreation, including relaxation and conversation; and preserve the qualities of the acoustic environment that are conducive to protecting the amenity of the community;
- Controlling background creep.

3.1.1 Acoustic Quality Objectives

The EPP (Noise) defines the acoustic quality objective as seeking to protect the amenity of an acoustic environment. The indoor night-time goals address sleep disturbances and sleep awakenings, while during the day it protects the ability to have a conversation.

The acoustic quality objectives are expressed as indoor noise level goals for dwellings during the night period, from 10pm to 7am, and outdoor noise level goals during the day and evening periods, 7am to 6pm and 6pm to 10pm respectively. The EHP EcoAccess Guideline “Planning for Noise Control” proposes that a typical residential building façade reduction is between 5-10dB(A) with windows open for ventilation. EcoAcoustics understands that based on this noise reduction range, EHP applies a reduction of 7dB(A) from outside a house to inside a house with windows fully open. *Table 3.1* provides a summary of the acoustic quality objectives.



Table 3.1: EPP (Noise) Acoustic Quality Objectives

Sensitive Receptor	Time of Day	Acoustic Quality Objectives at Noise Sensitive Receptors, dB(A)			Environmental Values
		$L_{Aeq, adj, 1hr}$	$L_{A10, adj, 1hr}$	$L_{A1, adj, 1hr}$	
Dwelling Outdoors	Daytime 7am to 6pm & Evening 6pm to 10pm	50	55	65	Health & wellbeing
Dwelling Indoors	Daytime 7am to 6pm & Evening 6pm to 10pm	35	40	45	Health & wellbeing
Dwelling Indoors	Night time 10pm to 7am	30	35	40	Health & wellbeing in relation to the ability to sleep

Table 3.2 shows the adjustments that are to be added to the measured noise levels at a receptor location to derive the adjusted level (adj) if the noise is subjectively assessed to be tonal or impulsive in character.

Table 3.2: Noise Character Adjustments at Sensitive Receptors

Noise Characteristic	Adjustment to Noise Level
Tonal characteristic is just audible	+2dB(A)
Tonal characteristic is clearly audible	+5dB(A)
Impulsive characteristic is just audible	+2dB(A)
Impulsive characteristic is clearly audible	+5dB(A)

3.1.2 Background Creep

Background creep is defined as the cumulative increase in minimum noise levels generated by continuously operating noise sources. Controlling background creep seeks to avoid intrusiveness. To the extent that it is reasonable to do so, noise from an activity must not be:

- For noise that is continuous, the noise must not be greater than the existing acoustic environment; or
- For noise that varies over time, the noise must not be more than 5 dB(A) greater than the existing acoustic environment.

The EPP (Noise) does not define “continuous noise” but by definition, “continuous noise” would be required to occur for at least 90% of the measurement period (typically 15 minutes or 60 minutes).



Based on the measured noise levels discussed in Section 2, *Table 3.3* sets out the applicable noise limits to control background creep. Note that the author has included the time period from 5am to 7am to account for the early start time in Far North Queensland.

Table 3.3: Background Creep Noise Limits

Time of day	Measured Background	Continuous Noise Limit	Variable Noise Limit
Daytime 7am to 6pm	51	51	56
Evening 6pm to 10pm	40	40	45
Night 10pm to 7am	30	30	35
Early morning 5am to 7am	42	42	47



4 Noise Modelling

4.1 Methodology

Computer modelling has been used to calculate the noise levels at nearby residences. Noise modelling is used as it is not affected by background noise sources and can provide the noise level for various weather conditions.

The software incorporates the CONCAWE algorithms enabling the modelling to include the influence of wind and atmospheric stability. Input data required in the model are:

- Topographical data;
- Ground Absorption; and
- Source sound power levels.

4.1.1 Topographical Data

Topographical data was based on information provided by the client, and obtained from Intramaps.

4.1.2 Ground Absorption

Ground absorption varies from a value of 0 to 1, with 0 being for an acoustically reflective ground (e.g. water or bitumen) and 1 for acoustically absorbent ground (e.g. grass). In this instance value of 0.6 has been used for the surrounding area, and 0 has been used for the site.

4.1.3 Source Sound Levels

Table 4.2 shows the sound power levels used in the modelling. The sound power levels have been determined based on file data and manufacturer's data provided by the client, along with the measurements of the existing site.

Table 4.2: Source Sound Power Levels

Description	Octave Band Centre Frequency, dB (Hz)							Overall dB(A)
	63	125	250	500	1k	2k	4k	
Automated Carwash Tunnel entry/exit	82	83	84	85	87	86	85	92
Hand wash bay	79	80	80	82	83	83	80	88
Vacuum (unattenuated)	85	80	82	80	81	82	85	92



5 Noise Impact Assessment

The noise level predictions for the car wash assume the following:

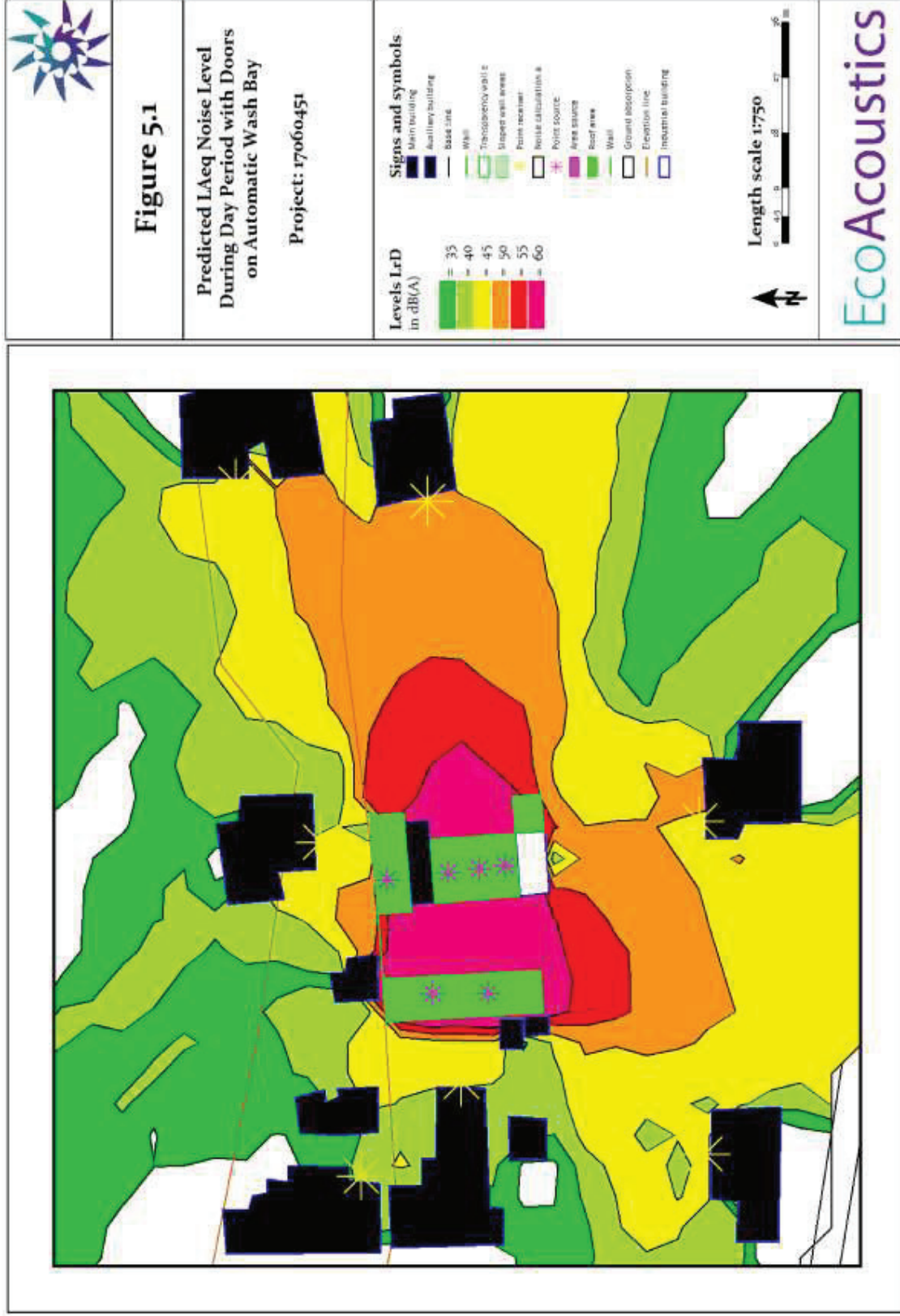
- The proposed automatic car wash will be fitted with an automatic door on the entry and exit equivalent to a PVC clear 2.5 mm door blade (which provides a minimum R_w 23);
- Based on the sound power data provided, the noise associated with the automatic car wash has no tonal, impulsive or modulating characteristics therefore no penalty adjustment is applicable;
- A +2dB tonality adjustment has been applied for the predicted vacuum noise levels;
- The predictions include roof and concrete wall structure around the vacuum bays;
- The predictions include a 1.8 metre high acoustic barrier located along the property boundary between vacuum bays and superwash bay. The height is based on the finished ground height of the proposed car wash;
- During the night time period, it has been assumed that there will be only the Autowash bay, superwash bay and one hand wash bay operating simultaneously, the vacuum bays will not operate between 10pm and 7am.

Table 5.1 presents the predicted noise levels associated with both the automatic car wash tunnel, the hand wash bays and the vacuum bays and compares the results to the criteria from EPP (Noise). Please note that predictions include the noise attenuation requirements discussed in Section 6 of this report. Figure 5.1 presents the noise contours for the proposed carwash.

Table 5.1: Predicted Noise from Proposed Site Alterations

Location (ref Figure 1.1)	Predicted Day Noise Level, L_{eq} dB(A)	Complies with Day Period Noise Limit of 50dB(A)	Predicted Evening Noise Level, L_{eq} dB(A)	Complies with Background creep evening limit of 45dB(A)	Predicted Night Noise Level, L_{eq} dB(A)	Complies with Background creep night limit of 35dB(A)
Rec R1	45	Complies	41	Complies	31	Complies
Rec R2	50	Complies	45	Complies	29	Complies
Rec R3	47	Complies	42	Complies	29	Complies
Rec R4	48	Complies	44	Complies	35	Complies
Rec R5	45	Complies	41	Complies	35	Complies
Rec R6	39	Complies	35	Complies	27	Complies

The results presented in Table 5.1 show that the predicted noise levels comply with the most stringent criteria, namely the night time period.





6 Recommendations and Discussion

To ensure compliance with the EPP (Noise), the following recommendations are required to be incorporated into the proposed carwash:

- The proposed automatic car wash will be fitted with an automatic roller door on both the entry and exit, providing equivalent performance to the RAPID series 3500 (clear 2.5mm thick PVC) which provides a minimum R_w 23;
- All vacuum bays are required to be fitted with sound absorption in the vacuum “end cap”;
- Vacuum bays are required to be shut down from 10pm until 7am daily;
- The roof structure above the vacuum bays is proposed to be metal deck or similar, to minimise reverberation in this area, it is recommended that this be lined with insulation;
- The predictions include a 1.8 metre high acoustic barrier located along the property boundary between vacuum bays and superwash bay. This height is based on the finished ground height of the proposed car wash.



7 Conclusion

The results of the noise predictions show that the proposed alterations to the site can comply with the noise criteria set out in EPP (Noise) for all time periods at nearby residential receivers with the inclusion of the attenuation measures discussed in Section 6.



Appendix A

Terminology



Terminology

Ambient Noise

Ambient noise refers to the level of noise from all sources, including background noise as well as the source of interest.

A-Weighting

An A-weighted noise level is a noise level that has been filtered as to represent the way in which the human ear distinguishes sound. This weighting indicates the human ear is more sensitive to higher frequencies than lower frequencies. The A-weighted sound level is described as L_A dB.

Background Noise

Background noise is the noise level from sources other than the source of interest. Background may originate from such things as traffic noise, wind induced noise, industrial noise etc.

Decibel (dB)

The decibel is the unit that characterises the sound power levels and sound pressure of a noise source. It is a logarithmic scale with regard to the threshold of hearing.

Impulsive Noise

An impulsive noise source is a short-term impact noise which may originate from such things as banging, clunking or explosive sound.

Influencing factor

$$= 1/10 (\% \text{ Type } A_{100} + \% \text{ Type } A_{450}) + 1/20 (\% \text{ Type } B_{100} + \% \text{ Type } B_{450})$$

Where:

% Type A_{100} = The percentage of industrial land within a 100m radius of the premises receiving noise

% Type A_{450} = The percentage of industrial land within a 450m radius of the premises receiving noise

% Type B_{100} = The percentage of commercial land within a 100m radius of the premises receiving noise

% Type B_{450} = The percentage of commercial land within a 450m radius of the premises receiving noise

+ Traffic factor (maximum 6 dB)

= 2 for each secondary road within 100m

= 2 for each major road within 450m

= 6 for each major road within 450m



L_{A1}

An L_{A1} level is the A-weighted noise level which is overreached for one percent of a measurement period. It represents the average of the maximum noise levels measured.

L_{A1} assigned level

An assigned L_{A1} level which is not to be exceeded for more than 1% of a delegated assessment period.

L_{A10} assigned level

An assigned L_{A10} level which is not to be exceeded for more than 10% of a delegated assessment period.

L_{A10}

An L_{A10} level is the A-weighted noise level which is exceeded for 10 percent of the measurement period and is considered to represent the “intrusive” noise level.

L_{A90}

An L_{A90} level is the A-weighted noise level which is overreached for 90 percent of the measurement period. It represents the “background” noise level.

L_{Aeq}

L_{Aeq} refers to the comparable steady state of an A-weighted sound which, over a specified time period, contains the same acoustic energy as the time-varying level during the specified time period. It represents the “average” noise level.

L_{AFast}

The noise level in decibels, obtained using the A frequency weighting and the F time weighting as specified in AS1259.1-1990. L_{AFast} is used when examining the presence of modulation.

L_{Amax}

The L_{Amax} level is the maximum A-weighted noise level throughout a specified measurement.

L_{Amax} assigned level

The L_{Amax} assigned level describes a level which is not to be exceeded at any time.

L_{APeak}

The L_{APeak} level is the maximum reading (measured in decibels) during a measurement period, using the A frequency weighting and P time weighting AS1259.1-1990.



L_{ASlow}

A L_{ASlow} level is the noise level (measured in decibels) obtained using the A frequency weighting and S time weighting as specified in AS1259.1-1990

Major Road

A Major road has an estimated average daily traffic count of more than 15,000 vehicles.

Maximum Design Sound Level

Maximum Design Sound Level is the level of noise beyond hearing range of most people occupying the space start, become dissatisfied with the level of noise.

Modulating Noise

A modulating source is an audible, cyclic and regular source. It is present for at least 10% of a measurement period. The quantitative definition of tonality is:

a fluctuation in the discharge of noise which;

- a) is more than 3 dB $L_{A Fast}$ or is more than 3 dB $L_{A Fast}$ in any one-third octave band;
- b) is present for at least 10% of the representative

One-Third-Octave Band

One-Third-Octave-Band are frequencies that span one-third of an octave which have a centre frequency between 25 Hz and 20 000 Hz inclusive.

Representative Assessment Period

Representative Assessment Period describes a period of time not less than 15 minutes, and not surpassing four hours. It is determined by an inspector or authorised person to be suitable for the assessment of noise emissions.

Reverberation Time

Reverberation time refers to an enclosure for a sound of a specified frequency or frequency band as well as the time that would be necessary for the reverberantly decaying sound pressure level in the enclosure to decrease by 60 decibels.

RMS

The root mean square level is used to represent the average level of a wave form such as vibration.

Satisfactory Design Sound Level

Satisfactory Design Sound Level refers to the level of noise that has been found to be acceptable for the environment in question, which is also to be non-intrusive.



Secondary / Minor Road

A Secondary / Minor road has an estimated average daily traffic count of between 6,000 and 15,000 vehicles.

Sound Pressure Level (L_p)

Sound Pressure Level refers to a noise source which is dependent upon surroundings, and is influenced by meteorological conditions, topography, ground absorption; distance etc. Sound Pressure Level is what the human ear actually hears. Noise modelling predicts the sound pressure level from the sound power levels whilst taking into account the effect of relevant factors (meteorological conditions, topography, ground absorption; distance etc).

Sound Power Level (L_w)

A sound power level of a noise source cannot be directly measured using a sound level meter. It is calculated based on measured sound pressure levels at recognised distances. Noise modelling includes source sound power levels as part of the input data.

Specific Noise

Specific Noise relates to the component of the ambient noise of interest. It can be specified as the noise of interest or the noise of concern.

Tonal Noise

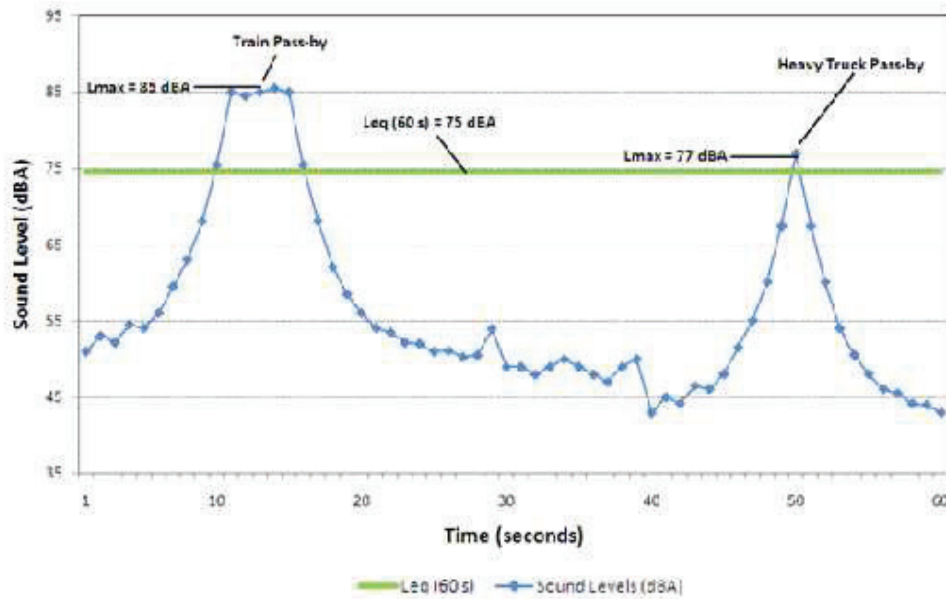
A tonal noise source can be designated as a source that has a specific noise emission over one or several frequencies, such as droning. The quantitative definition of tonality is:

the presence in the noise emission of tonal characteristics where the difference between —

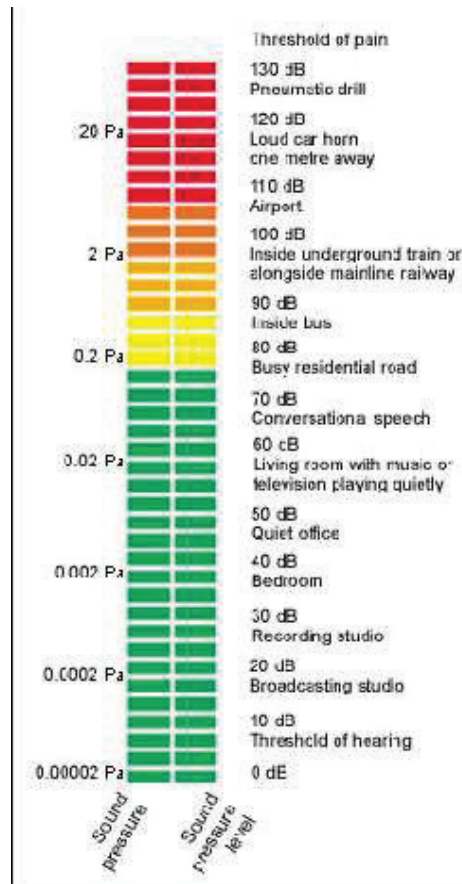
- a) the A-weighted sound pressure level in any one-third octave band; and
- b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands, is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\ Slow}$ levels.



Chart of Noise Level Descriptors



Typical Noise Levels



JOB No: 17-025 Civil

Sheet: C1 of C11.

TMC | Building Design Group

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PROJECT

Project
Description:

Proposed Car Wash

FOR:

Maisel Ag P/L ATF; Chris Maisel Family Trust.

AT:

308 Byrnes St, Mareeba, QLD, 4880

CODES AND REFERENCES

National Construction Code
A.R.C. Design Handbook
A.I.S.C. Safe Load Tables
Steel Designer's Manual
Source Book AS 1250 - M Lay
~~Reinforced Concrete - 3rd Edition~~
~~R.C. Fundamentals - Ferguson~~
~~Timber Framing Manuals - T.P.C.~~
Foundation Analysis and Design - J.E. Bowles
Soil Mechanics - Copper & Cassie
Australian Rainfall & Runoff - 1987
Water Resources Engineering - Linsley & Franzini
Drainage Construction Standard Drawings - FNQROC
AS 1170 pt1&2, 1250, 4100, 1538, 1684, 1720.1, 3600, 3700 and 2870.1 & 3500

DATA AND FOUNDATIONS

CONCRETE:

$F'_c = 25 \text{ MPa}$, $F_{sy} = 400 \text{ MPa}$ & 450 MPa

STEEL:

$F_y = 300 \text{ MPa}$ or 350 MPa . All items of design to comply with AS 1250 or AS 4100 unless noted otherwise.

SOIL:

All footings are to bear on undisturbed natural soil of kPa and approved before concrete is poured.

OTHER:

LOADS AND FORCES (in KPa)

WIND:

REGION ____ RECURRENCE. 1: $M_z =$ ____ $M_s =$ ____ $M_t =$ ____

ROOF:

____ (DL), Greater of 0.25 or $(1.8/a) + 0.12$ (LL)

WALLS:

0.35 (stud), 2.1 (per skin of brick)

FLOORS:

0.5 (DL), timber 1.5 (LL)

STAIRS:

3.0 (LL)

BALCONY:

3.0 (LL)

FOOTINGS:

DL + 0.5 (LL)

OTHERS:

Project Design Engineer:

Tracey Michaels

Checking/Certifying Engineer:

B.Eng (Hon), M.Eng (Hon)

Zlatko Sagnovic - RPEQ 08567

of

Z.S. Consulting

Job No: 17-025 Civil Sheet No: C2
Designed By: T. Michaels Date: 7/8/2017
Project: Car wash



TMC Building Design Group

A.B.N. 81 142 867 114

P.O. Box 491, Port Melbourne, Vic, 3207

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Email: info@tmcdesign.com.au

Box Gutter #1 - Vacuum Bay Roof

$$I_s = 291 \text{ mm}^2/\text{hr}$$

$$A = \frac{180}{2} = 90 \text{ m}^2$$

$$A_c = 90 + \left(\frac{13 \times 0.1}{A_v} \right) = 91.3 \Rightarrow \text{say } 95 \text{ m}^2$$

Install gutter at 1:200 min slope, $Q = 7.6 \text{ l/sec}$

$$w_{bg} = 450 \text{ mm} \quad h_a = 110 \text{ mm}$$

$$\text{Sump} \Rightarrow h_s = 30 \text{ mm} \quad \text{150mm}$$

Overflow Provisions; $I_{oc} = 31 \text{ mm}$, $W_t = 88 \text{ mm}$
adopt high capacity overflow wter.

Depth Box Gutter

$$d_{bg} = 88 + 31 = 119 \text{ mm M.W.}$$

Adopt \rightarrow 450mm wide x 150mm deep box gutter

\rightarrow 150mm ϕ down pipes.

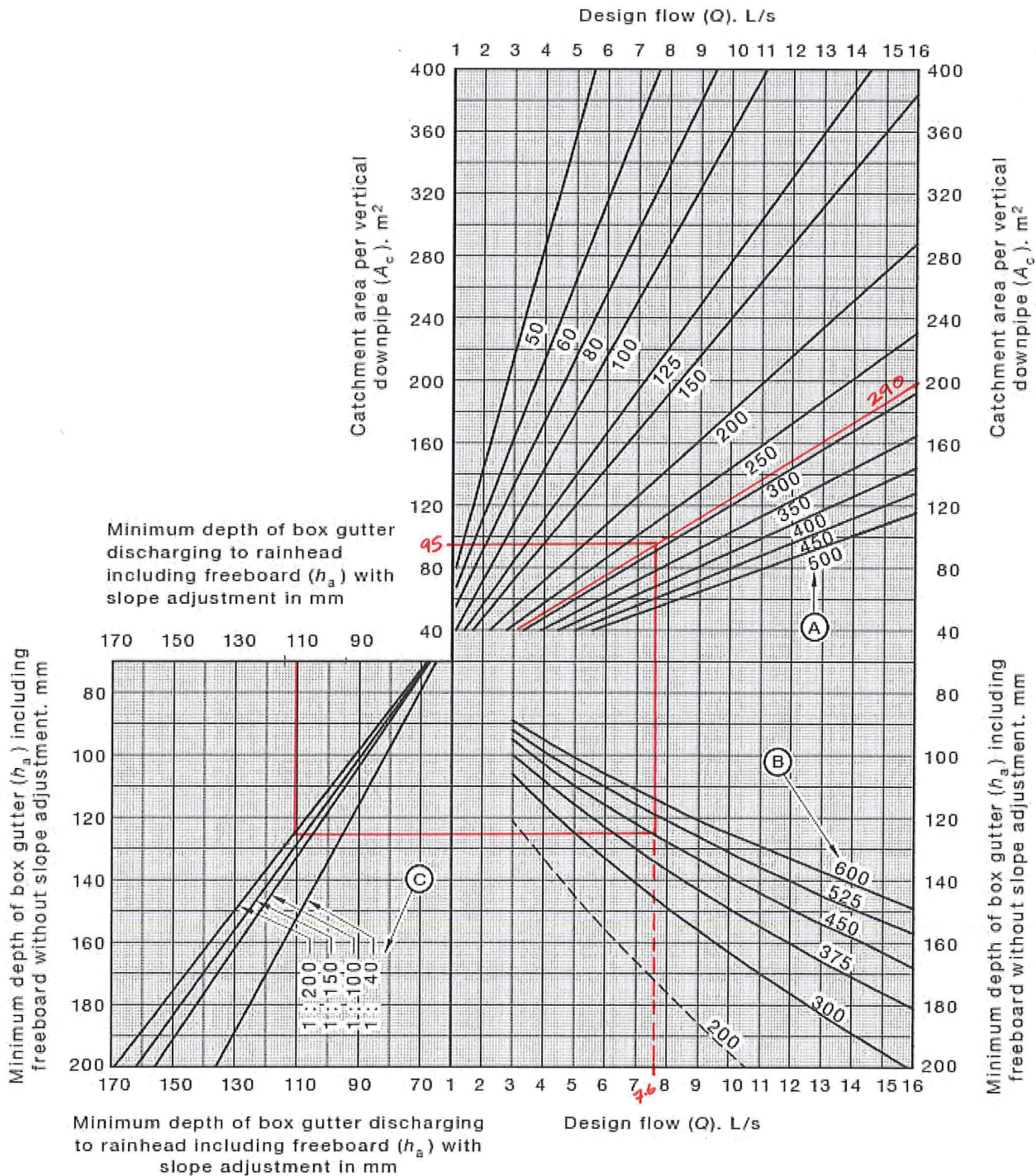
\rightarrow High capacity sump for overflow requirements.

\rightarrow Sump 150mm wide x 600mm long x 450mm wide

\rightarrow outlet downpipe set at base of sump.

\rightarrow overflow downpipe set 31mm above base of box gutter, refer pg. for details.

\rightarrow overflow downpipe = 150mm ϕ .



LEGEND:

- (A) = Design rainfall intensity ($^{100}I_5$) OR ($^{50}I_{10}$) in mm/h (typical)
- (B) = Width of box gutter (W_{bg}) in mm (typical)
- (C) = Gradient of box gutter (typical)

NOTE: Box gutters 200 mm wide may be used for domestic construction only. See Clause 3.7.1.

FIGURE 11 DESIGN GRAPH FOR A FREELY DISCHARGING BOX GUTTER

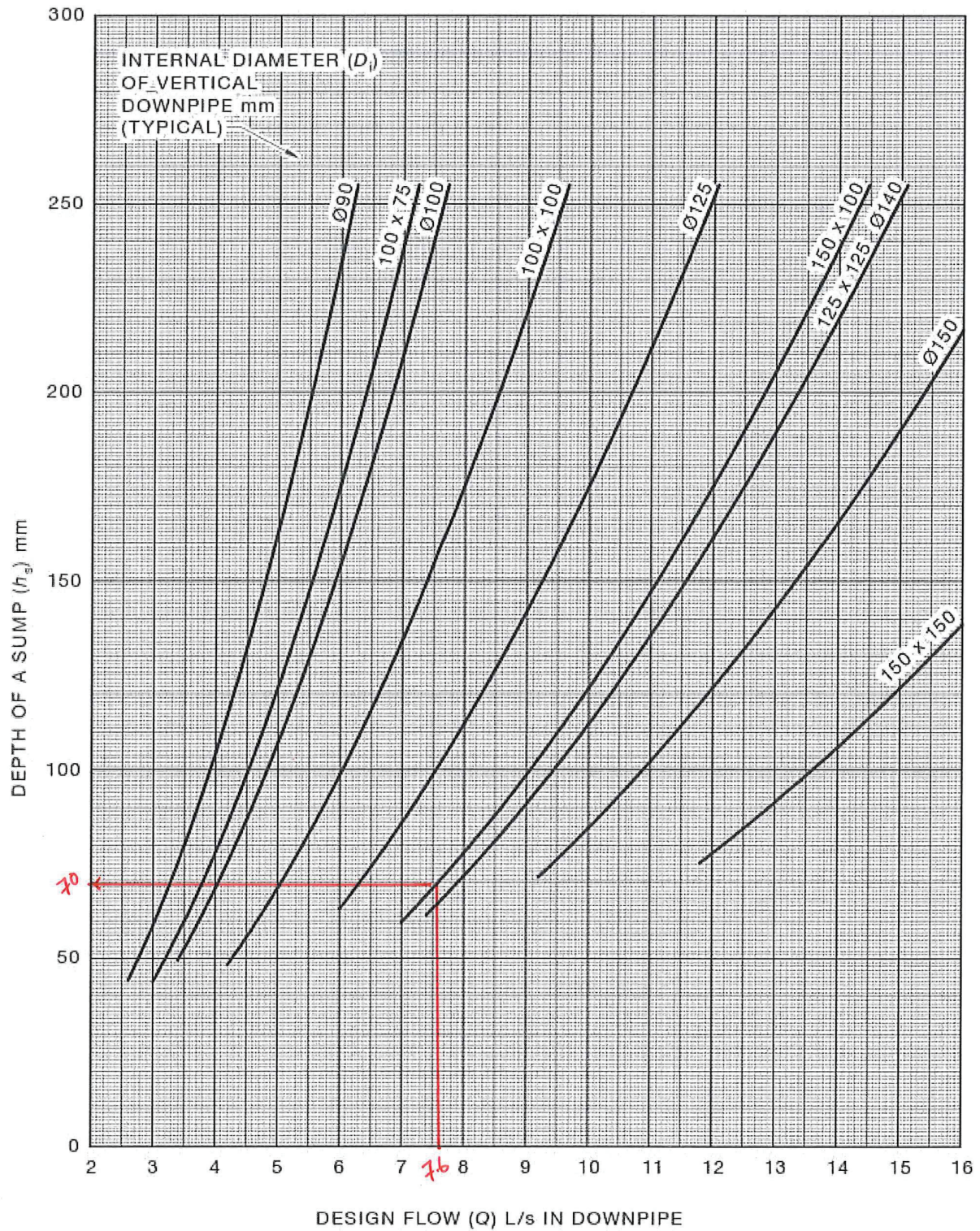
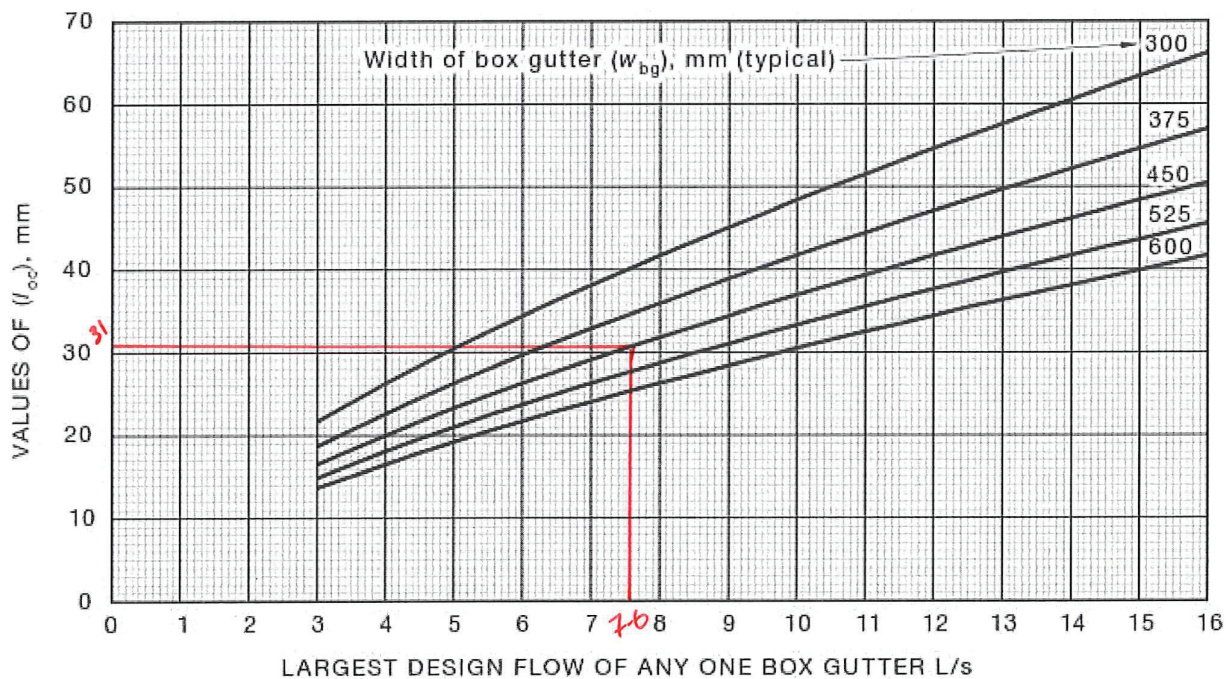
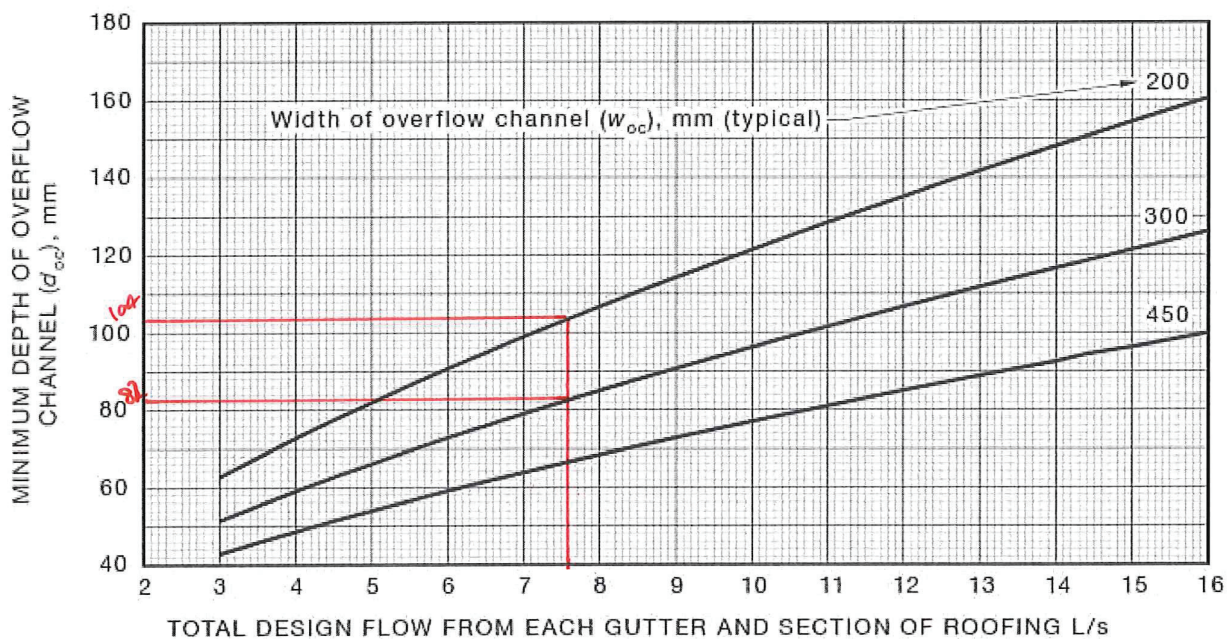


FIGURE 14 DESIGN GRAPH FOR SUMP

(a) Determination of values for l_{oc} (b) Determination of values for d_{oc}

NOTE: Graph (a) applies to both sump/side overflow device, and sump/high-capacity overflow device.

FIGURE 16 DESIGN GRAPH FOR SUMP/SIDE OVERFLOW DEVICE

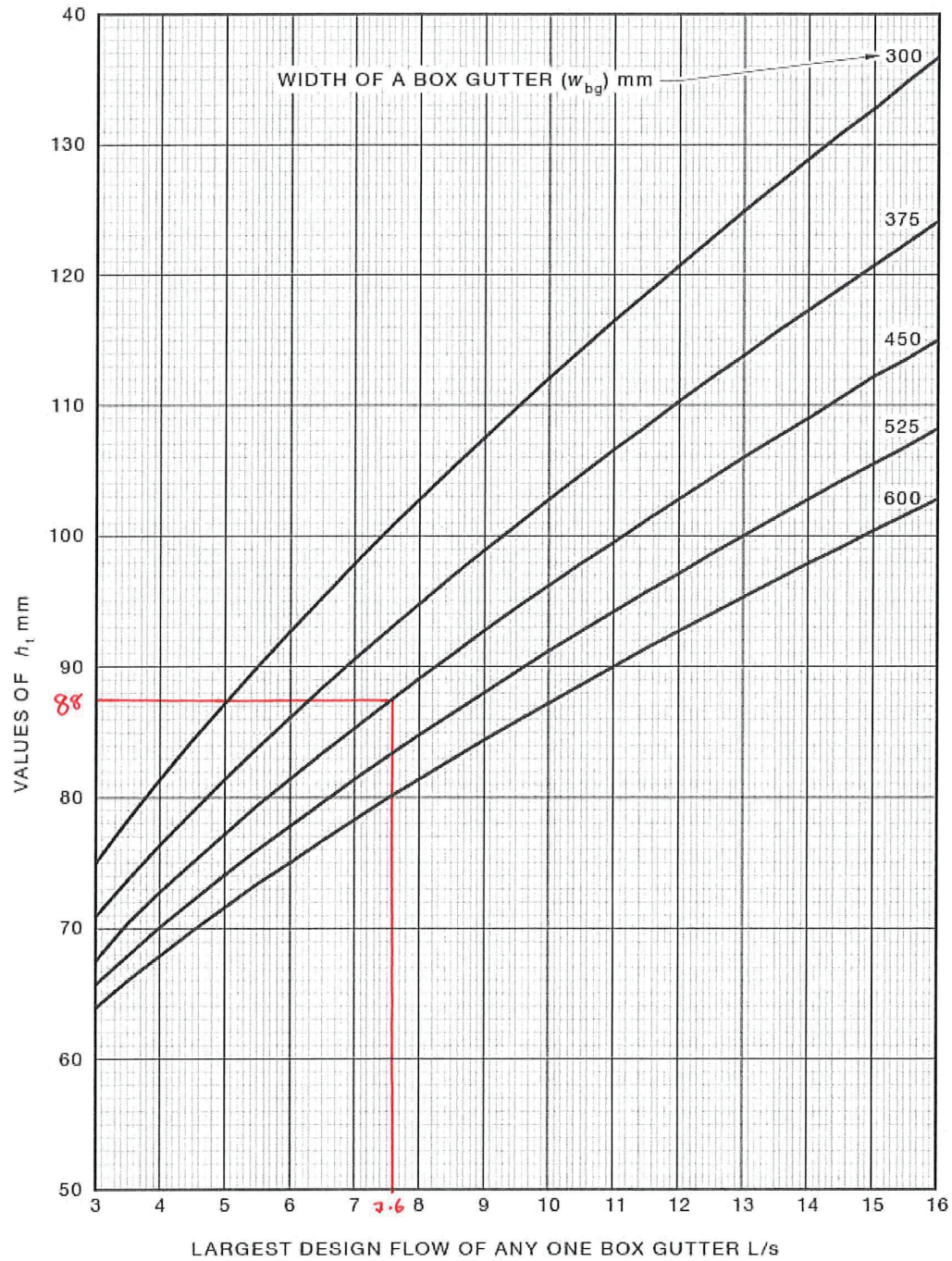
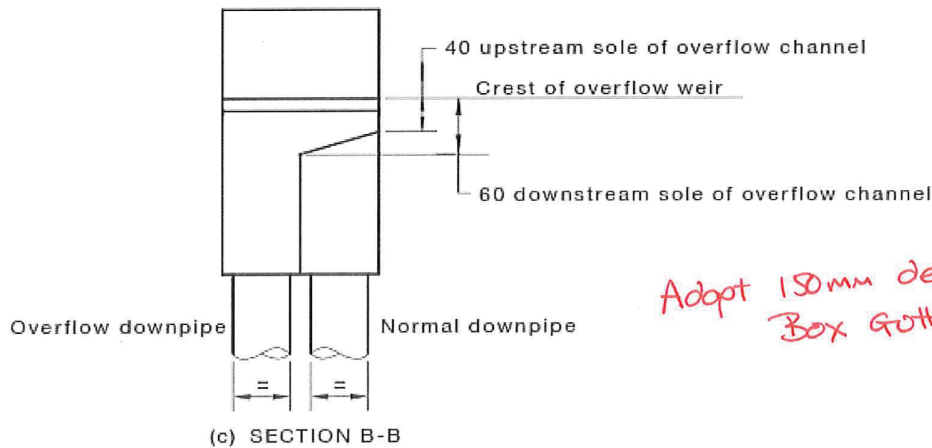
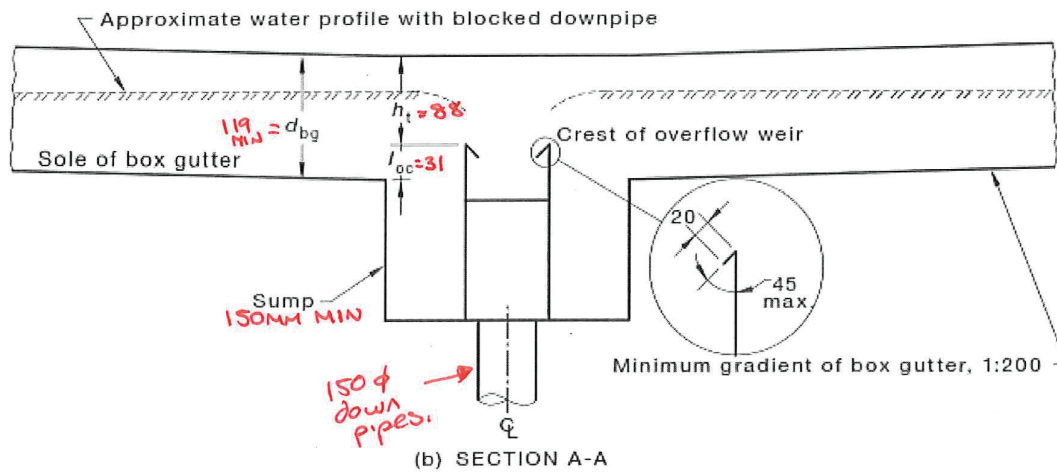
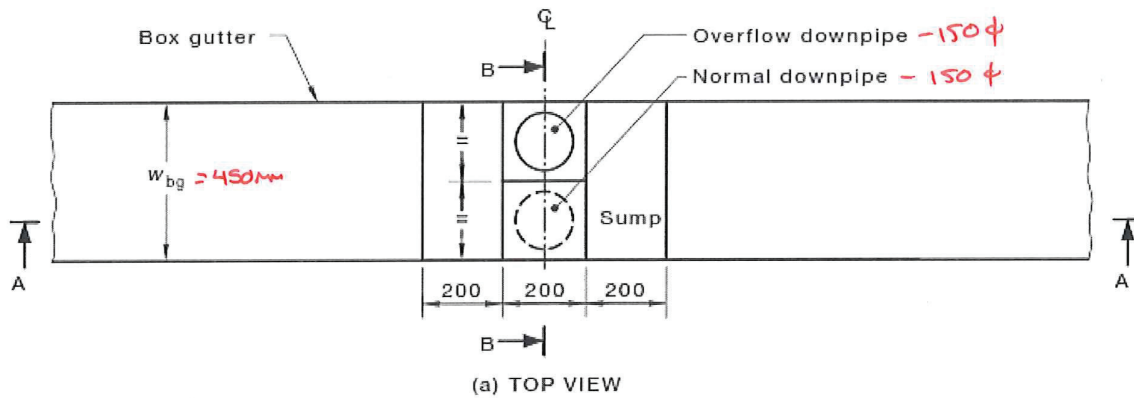


FIGURE 18 DESIGN GRAPH FOR SUMP/HIGH-CAPACITY OVERFLOW DEVICE



Adopt 150mm deep x 450mm wide
Box Gutter with 1:200 slope

NOTES:

- The depth of the sump (h_s) shall be measured— *Sump 150 deep x 450 wide x 600 long.*
~~(a) if $l_{oc} > 60$, from the sole of the box gutter at the sump; or~~
 (b) if $l_{oc} < 60$, the downstream sole of the overflow channel (i.e. $60 - l_{oc}$ below the sole of the box gutter at the sump).
- The sump shall be fully sealed to the box gutter.
- See Clause 3.7.5 for criteria for overflow devices.
- The normal outlet may be moved longitudinally to enable better inspection and maintenance access [see Clause 3.7.4 (f)].

DIMENSIONS IN MILLIMETRES

FIGURE 17 SUMP/HIGH-CAPACITY OVERFLOW DEVICE

Job No: 17-025 Civil Sheet No: C8

Designed By: T. Michaels Date: 7/8/2017

Project: Car wash

TMC Building Design Group

A.B.N. 81 142 867 114

P.O. Box 491, Port Melbourne, Vic, 3207

Ph: 0416 114 573 Fax: (03) 8669 4486

Email: info@tmcdesign.com.au

Eaves Gutter #1

$$^{20}I_s = 222 \text{ mm}^2/\text{hr}$$

$$A_c = 48 \times 1.03 = 50 \text{ m}^2$$

Install gutter at 1:500 MIN slope gradient.

$$A_e = 10,050 \text{ mm}^2 \text{ or greater}$$

$$Q = 3.1 \text{ l/sec}$$

Use 150 ϕ down pipes.

Area of roof / down pipe / meter of gutter

$$\rightarrow 16 \text{ m} \times \frac{^{20}I_s}{3600} = 0.99 \text{ l/sec/m}^2 \text{ of gutter}$$

Average flow / M length of gutter

$$\frac{3.1}{2.8} = 1.11 \text{ l/s / M of gutter}$$

ie- Adopt hf = 19mm. (table G1).

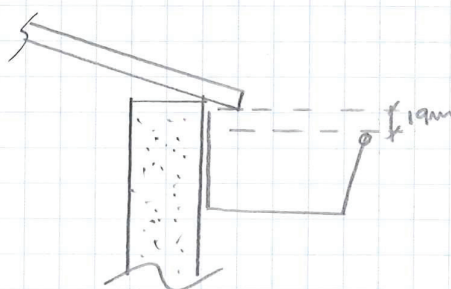
Adopt

Lysaght Quad 175 gutter ($A_e = 14,672 \text{ mm}^2$)

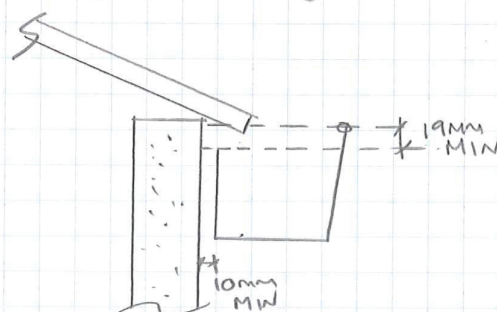
or similar gutter with min cross sectional area

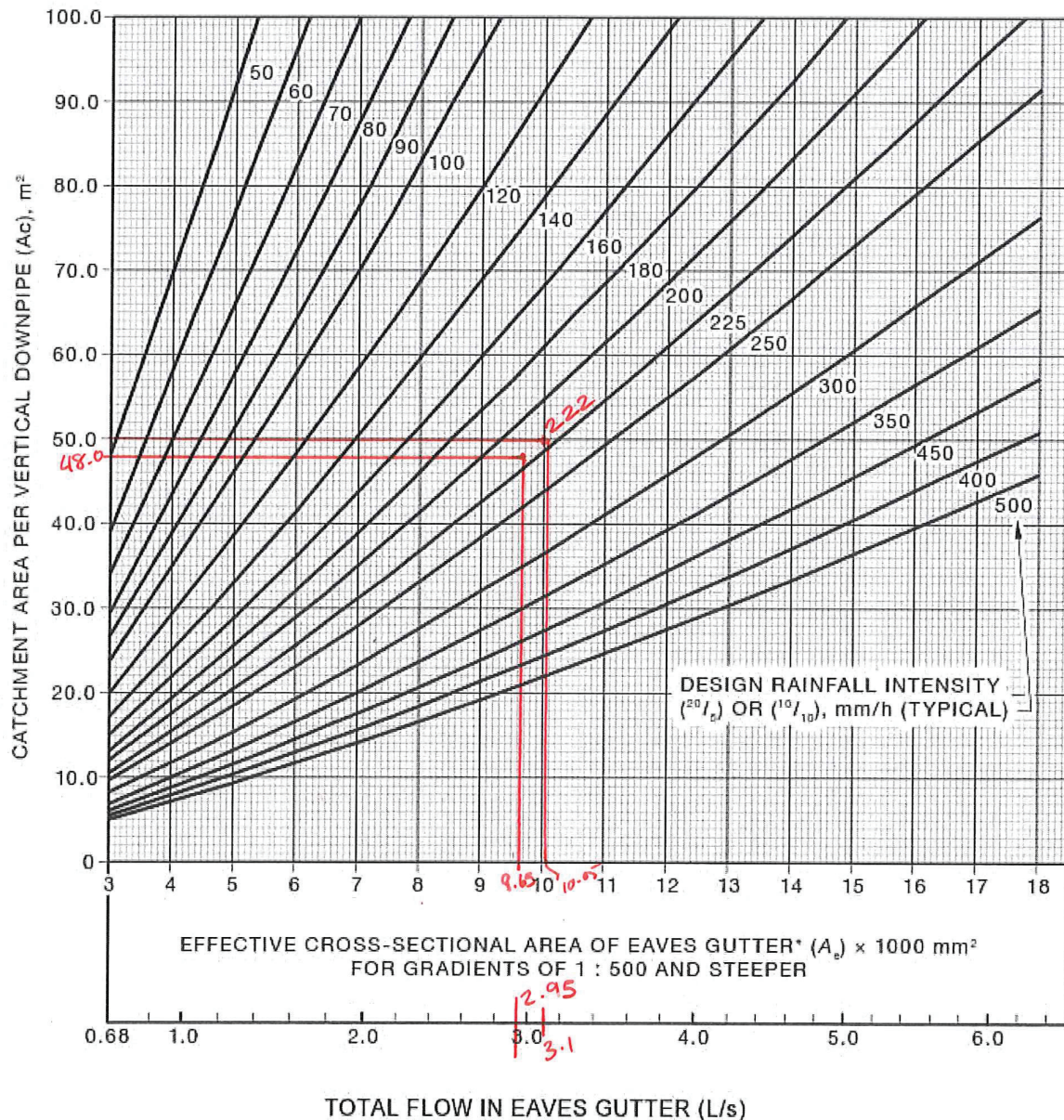
$$A_e \geq 10,050 \text{ mm}^2$$

Set down gutter 19mm MIN ϕ adopt 10mm MIN gap to conc. panel if a high fronted gutter is used.



-OR-





* See AS/NZS 2179.1.

NOTES:

- 1 This graph assumes—
 - (a) an effective width to depth is a ratio of about 2:1;
 - (b) a gradient in the direction of flow, 1:500 or steeper;
 - (c) the least favourable positioning of the downpipe and bends within the gutter length;
 - (d) a cross-section or half round, quad, ogee or square; and
 - (e) the outlet to a vertical downpipe is located centrally in the sole of the eaves gutter.
- 2 The required eaves gutter discharge areas do not allow for loss of waterway due to internal brackets.

FIGURE 3.5.2(B) REQUIRED SIZE OF EAVES GUTTERS FOR GRADIENTS FOR 1:500 AND STEEPER

Job No.:	17-025 Civil	Date :	27-Jul-17
Client :	Maisel AG Pty LTD ATTF Chris Maisel Family Trust		
Job address :	308 Brynes Street, Mareeba, QLD		

Location	Mareeba	y_{iD}	2	5	10	20	50	100	YEARS
$2i_{11}$	47.1	$2i_{6m}$	123.7			$50i_{6m}$	239.2		
$2i_{12}$	8.73	$2i_{11}$	47.1			$50i_{11}$	82.2		
$2i_{172}$	2.64	$2i_{12}$	8.73			$50i_{12}$	16.29		
$50i_{11}$	82.2	$2i_{172}$	2.64			$50i_{172}$	5.83		
$50i_{12}$	16.29	y_{KN}	0	0.8416	1.2816	1.6449	2.0537	2.3263	
$50i_{172}$	5.83	y_K	-0.017	0.836	1.292	1.673	2.107	2.400	
skewness (0.10	y_P	1.13	1.05	1.00	1.00	1.00	1.00	
F2	3.86	D hr	X_D	S_D					
F50	16.98	0.1	2.0391	0.1653					
(from AR&R 2001)		1	1.6199	0.1435					
		12	0.8879	0.1577					
		72	0.3685	0.1934					

		Y (YEARS)								P_D	N	PRE POST	
D (min)	D hr	y_{iD}	1	2	5	10	20	50	100				
5	0.083	I_{5m}	100.6	129.9	167.5	190.0	219.9	259.7	290.6		-0.058	190.0	190.0
8	0.133	I_{6m}	95.2	122.9	158.0	178.9	206.9	244.1	272.8	-0.792		178.9	178.9
10	0.167	I_{Dm}	86.6	111.6	142.8	161.4	186.3	219.3	244.7	-0.713	0.100	161.4	161.4
12	0.200	I_{Dm}	80.0	102.9	131.3	148.1	170.6	200.4	223.5	-0.646	0.184	148.1	148.1
20	0.333	I_{Dm}	63.5	81.3	102.6	115.1	132.0	154.3	171.4	-0.453	0.428	115.1	115.1
30	0.500	I_{Dm}	52.3	66.8	83.6	93.3	106.6	124.0	137.4	-0.291	0.632	93.3	93.3
20	0.333	I_{Dm}	63.5	81.3	102.6	115.1	132.0	154.3	171.4	-0.453	0.428	115.1	115.1
60	1.000	I_{30m}	36.9	46.8	57.7	63.9	72.4	83.6	92.1	0.000	1.000	63.9	63.9
1		I_1	36.9	46.8	57.7	63.9	72.4	83.6	92.1	0.000		63.9	63.9
12		I_{12}	6.8	8.7	11.0	12.4	14.2	16.6	18.5	1.192		12.4	12.4
72		I_{72}	2.0	2.6	3.6	4.2	4.9	6.0	6.8	2.190		4.2	4.2

DRAINAGE DISCHARGE- DRAINAGE RUN 1

PRE-DEVELOPEMENT			POST-DEVELOPEMENT				t_c (min)	I_{MAX}
ARI	10		ARI	10			10	161.4
t_c (min)=	5		t_c (min)=	5	8	10	12	20
SITE Width (m)			Roof Area (m2)	552	552	552	552	552
SITE Length (m)			Discharge Coefficient	1	1	1	1	1
SITE Area (m2)	1380.4		Conc. Drive Area (m2)	694.4	694.4	694.4	694.4	694.4
Discharge Coefficient	0.41		Discharge Coefficient	0.9	0.9	0.9	0.9	0.9
Rainfall Intensity (mm/hr)	190.0	Contributing Landscaping (m2)	134.0	134.0	134.0	134	134	134
Allowable Discharge Qpsd(l/s/ha)		Discharge Coefficient	0.3	0.3	0.3	0.3	0.3	0.3
		Rainfall Intensity (mm/hr)	190.0	178.9	161.4	148.1	115.1	
Allowable Discharge Qpsd(l/s)	29.94	Actual Discharge Qasd(l/s)	64.23	60.50	54.58	50.06	38.92	
Volume total (m3)	8.98	Storage Vol req'd (m3)	10.29	14.67	14.78	14.49	10.78	

Storage Location	Storage Vol (M3)	Remaining Vol (M3)
3 x 5,000L Rain Water Tanks	15000.00	-216.77

The proposed system will store slightly in excess of the required volume of rain water for a 1 in 10 year storm event

JOB NO: 17-025 Civil
PROJECT: Drainage Detention System Design
AT: 308 Byrnes Street, Mareeba, QLD
FOR: Maisel AG Pty LTD ATTF Chris Maisel Family Trust

DATE: 7-8-2017
BY: Tracey M
Sh: C11

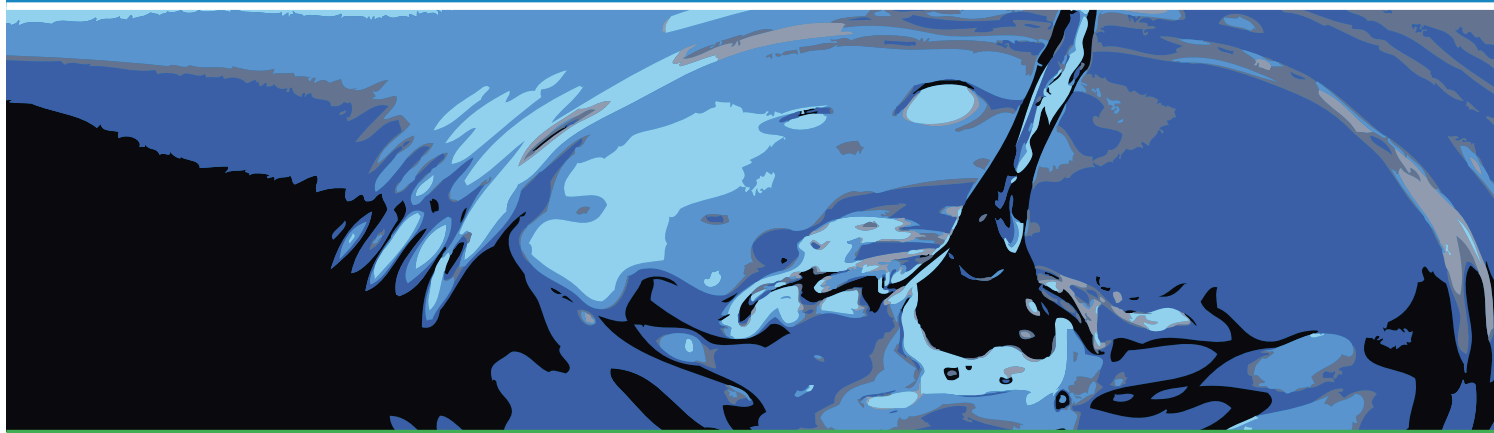
Direct Outlet into Stormwater system that enters pipes after the Detention Devices

Concrete Driveway Areas	Non-Permeable area =	694.4	M2
	C- non permeable =	0.9	
	Intensity =	161.4	mm2/hr
	Q=	28.02	L/sec
Allowable Discharge from the Site		29.94	L/sec

Therefore a flow restriction device is NOT required for this site.



CON-SERV WATER RECOVERY SYSTEMS



CON-SERV Water Recovery Systems consists of two (2) independent pumping systems:

- **The Primary Micro Pore Filtration System**
- **The Ozone Re-Circulation System**

The **Primary Filtration Systems** consists of a high volume process pump, with an associated filtration array designed for maximum water quality while providing a high volume of wash water to be reused in professional carwash equipment.

The system is designed to receive wastewater collected from the wash sump/holding tank system and to process this water to remove all particulate matter of greater than twentyfive (25) micron, the size of a single white blood cell.

In addition, the filtration system is designed to remove oils, road film, and waxes which causes deterioration in overall recovered water quality.

The **Ozone Re-Circulation System** is operated independently of the filtration systems on a continuous basis to treat all water held in system storage tanks. The **Re-Circulation System** utilizes a patent injector system, which provides a 99% transfer rate of ozone to stored water.

The powerful **Ozone Re-Circulation System** de-emulsifies waxes, and removes dyes from solution, so they may be easily captured by the micro pore filtration system described above.

The ozone in the water also acts as an oxidizing agent to kill bacteria and algae by limiting organic build-up, which is commonly associated with odours found in reclaimed water.

After the wastewater has been treated by these two synergistic systems, the water will be of a quality ready to wash another vehicle.

Free Standing Combination Series III



- Self-cleaning stainless steel filter element
- 3 HP / 5 HP process pump with strainer basket
- Ballast Pressure Control - 35 / 60 fibrewoven tank
- 25u absolute filtered water quality*
- U/L listed electrical control system
- 3/4 HP ozone re-circulation pump
- *Includes Pump Guard advisor*
- Flow rates up to 100 GPM

* 25 Micron equals 0.001, the size of a single white blood cell

Available Options

- Additional 12 gram ozone modules
- **Enzyme** dosing control
- **Oxine** dosing control
- Stainless steel housing & separator

Lifetime Warranty on stainless steel filter elements

Standard 2 micron (.001 the size of a single white blood cell)

Stainless steel platform, components & fittings

Model	FS Comb Series III 3	FS Comb Series III 5
*Flow Rate	65 GPM	100 GPM
Height	52"	
Width	36"	
Depth	34"	
Weight	306.82 Kgs	329.55 Kgs
Input Power	208/230/480 3 Phase 60 Cycle	
Control Power	115 Volt 1 Phase 15 Amp Max	
Primary Pump	3.0 HP	5.0 HP
Full Load Amps	8.5/8.0/4.0	13.0/12.2/6.1
Secondary Pump	.75 HP @ 3.1 / 1.55 Full Load Amp	
Suction Inlet	2" NPT	3" NPT
Filtered Outlet	1.5" NPT	2" NPT
Ozone Outlet	1" NPT	
Discharge Outlet	3" NPT	
Ozone Output	12 grams / Hour	
Oxygen	24 SCFH / 30 SCFH	

* GPM Ratings may vary due to Piping Layout that may change Pump Head Curve

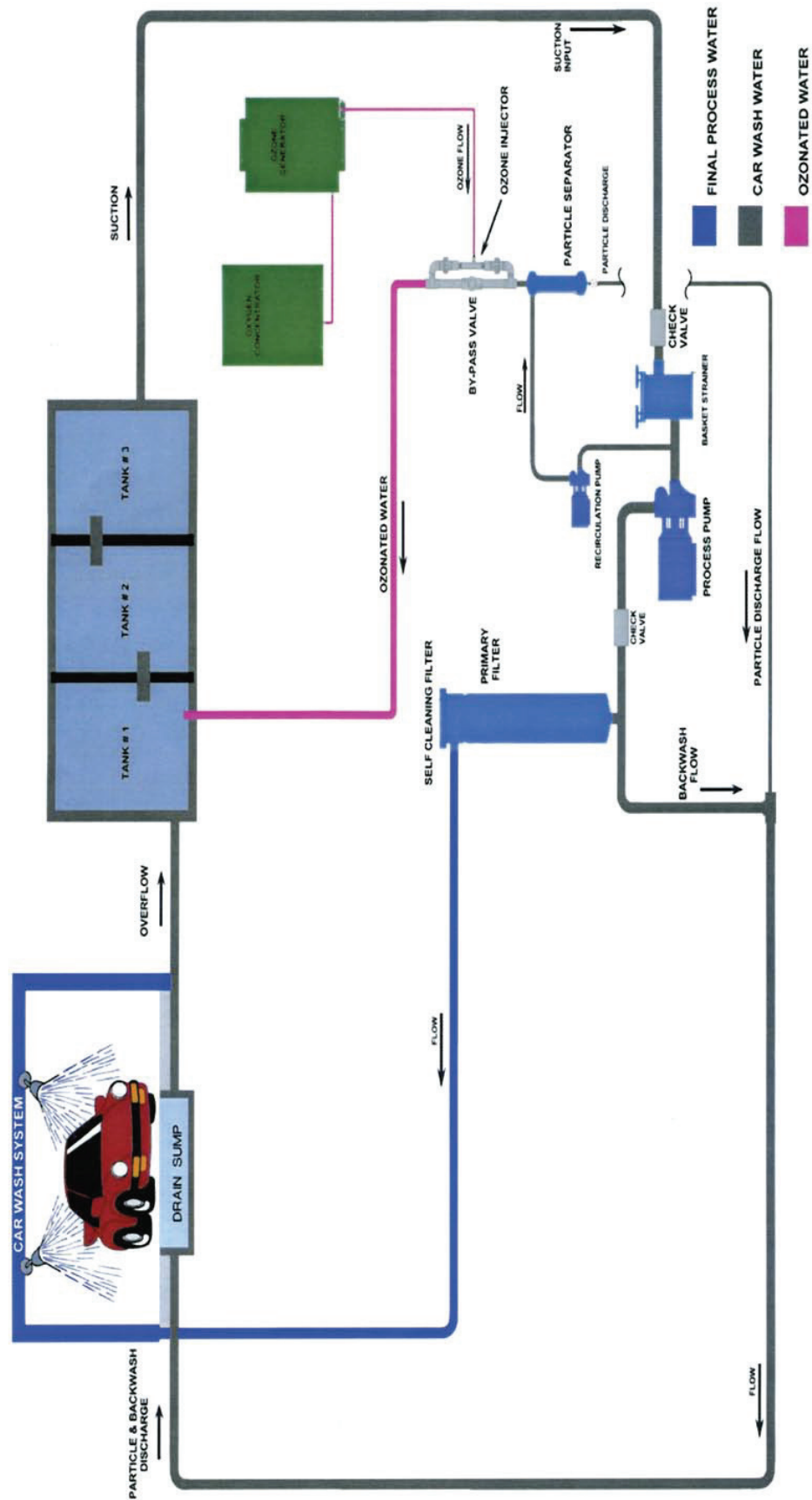


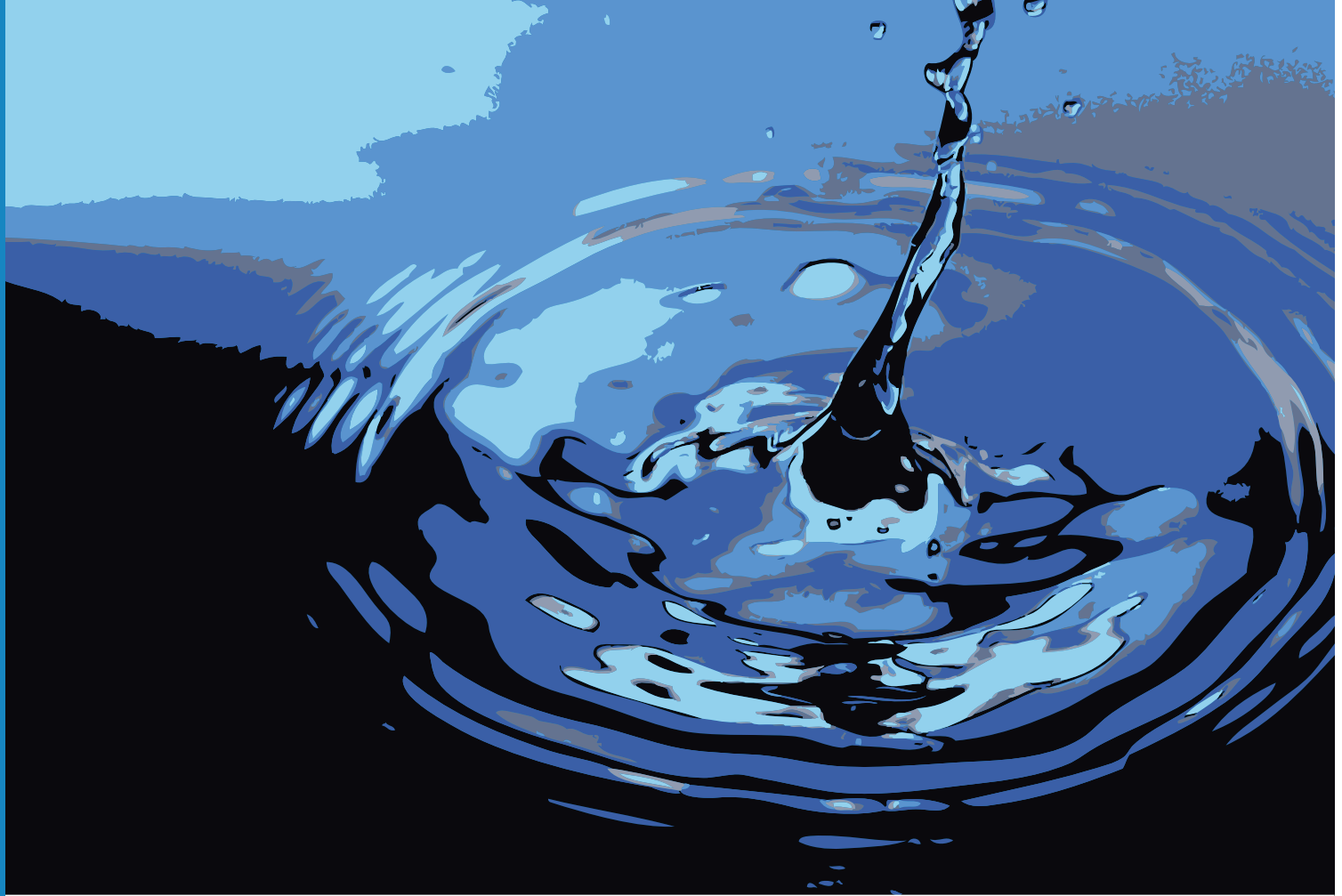
Back View
Inlets and Outlets



Front View
Oxygen Concentrator and
Ozone Generators

The CON-SERV Filtration Process





Con-Serv Manufacturing Water Usage Analysis

Application						Water Usage		
<i>PDQ Laser 4000</i>	GPM of Nozzles	Number Nozzles	Cycle Duration % Minute	Cycle Speed	Consumed Litres	Type Code (F or R)*	Fresh Litres	Reclaim Litres
Under Carriage & Rocker	2.5	12	0.33		42.57	R	0	42.57
Presoak	0.2	10	0.3	7	2.58	F	2.58	0
Presoak	0.2	10	0.3	7	2.58	F	2.58	0
High Pressure Wash	3.5	10	0.5	5	75.25	R	0	75.25
High Pressure Wash	3.5	10	0.5	5	75.25	R	0	75.25
Low Pressure Wax	1	10	0.3	7	2.58	F	2.58	0
Final Rinse	3.5	10	0.2	9	30.1	F	30.1	0
Total Water Used per Car (Litres)					230.91		37.84	193.07

* Fresh or Reclaim



Carwash World Pty Ltd ABN 80 114 098 387

Unit 8, 3 Packard Avenue PO Box 653 Castle Hill NSW 2154 Australia

T +61 2 8850 4490 F +61 2 8850 4464 E sales@carwashworld.com.au

22 August, 2017

Chief Executive Officer
Mareeba Shire Council
PO Box 154
MAREEBA QLD 4880

Dear Sir,

**RE: APPLICATION FOR MATERIAL CHANGE OF USE – CAR WASH
LOT 2 ON M35663, 308 BYRNES STREET, MAREEBA**

Under Section 51 of the *Planning Act 2016* it is mandatory for the owner of the land to which a Development Application relates to consents to the making of the Application.

We, MAISEL AG PTY LTD ATTF CHRIS MAISEL FAMILY TRUST as the registered owners of 308 Byrnes Street, Mareeba and more particularly described as Lot 2 on M35663, authorise Freshwater Planning Pty Ltd to lodge a Town Planning Application on our behalf.

A handwritten signature in black ink, appearing to read 'Ruth Maisel', with a stylized flourish at the end.

MAISEL AG PTY LTD
ATTF CHRIS MAISEL FAMILY TRUST

DA Form 1 – Development application details

Approved form (version 1.0 effective 3 July 2017) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development**, use this form (*DA Form 1*) **and** parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

Note: All terms used in this form have the meaning given under the Planning Act 2016, the Planning Regulation 2017, or the Development Assessment Rules (DA Rules).

PART 1 – APPLICANT DETAILS

1) Applicant details	
Applicant name(s) <i>(individual or company full name)</i>	MAISEL AG Pty Ltd ATTF Chris Maisel Family Trust
Contact name <i>(only applicable for companies)</i>	
Postal address <i>(P.O. Box or street address)</i>	C/- Freshwater Planning Pty Ltd 17 Barron View Drive
Suburb	Freshwater
State	Queensland
Postcode	4870
Country	Australia
Contact number	0402 729 004
Email address <i>(non-mandatory)</i>	FreshwaterPlanning@outlook.com
Mobile number <i>(non-mandatory)</i>	
Fax number <i>(non-mandatory)</i>	
Applicant's reference number(s) <i>(if applicable)</i>	F17/21

2) Owner's consent	
2.1) Is written consent of the owner required for this development application?	
<input checked="" type="checkbox"/> Yes – the written consent of the owner(s) is attached to this development application <input type="checkbox"/> No – proceed to 3)	

PART 2 – LOCATION DETAILS

3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

Note: Provide details below and attach a site plan for any or all premises part of the development application. For further information, see [DA Forms Guide: Relevant plans](#).

3.1) Street address and lot on plan

☒ Street address **AND** lot on plan (all lots must be listed), **or**

☐ Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon; all lots must be listed).

a)	Unit No.	Street No.	Street Name and Type	Suburb
		308	Byrnes Street	Mareeba
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)
	4880	2	M35663	Mareeba Shire Council
b)	Unit No.	Street No.	Street Name and Type	Suburb
	Postcode	Lot No.	Plan Type and Number (e.g. RP, SP)	Local Government Area(s)

3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)

Note: Place each set of coordinates in a separate row. Only one set of coordinates is required for this part.

☐ Coordinates of premises by longitude and latitude

Longitude(s)	Latitude(s)	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

☐ Coordinates of premises by easting and northing

Easting(s)	Northing(s)	Zone Ref.	Datum	Local Government Area(s) (if applicable)
		<input type="checkbox"/> 54 <input type="checkbox"/> 55 <input type="checkbox"/> 56	<input type="checkbox"/> WGS84 <input type="checkbox"/> GDA94 <input type="checkbox"/> Other:	

3.3) Additional premises

☐ Additional premises are relevant to this development application and their details have been attached in a schedule to this application

☒ Not required

4) Identify any of the following that apply to the premises and provide any relevant details

☐ In or adjacent to a water body or watercourse or in or above an aquifer

Name of water body, watercourse or aquifer:

☐ On strategic port land under the *Transport Infrastructure Act 1994*

Lot on plan description of strategic port land:

Name of port authority for the lot:

☐ In a tidal area

Name of local government for the tidal area (if applicable):

Name of port authority for tidal area (if applicable):

☐ On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*

Name of airport:

☐ Listed on the Environmental Management Register (EMR) under the *Environmental Protection Act 1994*

EMR site identification:

☐ Listed on the Contaminated Land Register (CLR) under the *Environmental Protection Act 1994*

CLR site identification:

5) Are there any existing easements over the premises?

Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see [DA Forms Guide](#).

☐ Yes – All easement locations, types and dimensions are included in plans submitted with this development application

☒ No

PART 3 – DEVELOPMENT DETAILS

Section 1 – Aspects of development

6.1) Provide details about the first development aspect

a) What is the type of development? *(tick only one box)*

☒ Material change of use

☐ Reconfiguring a lot

☐ Operational work

☐ Building work

b) What is the approval type? *(tick only one box)*

☒ Development permit

☐ Preliminary approval

☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☐ Code assessment

☒ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

Car Wash Facility

e) Relevant plans

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms guide: Relevant plans](#).

☒ Relevant plans of the proposed development are attached to the development application

6.2) Provide details about the second development aspect

a) What is the type of development? *(tick only one box)*

☐ Material change of use

☐ Reconfiguring a lot

☐ Operational work

☐ Building work

b) What is the approval type? *(tick only one box)*

☐ Development permit

☐ Preliminary approval

☐ Preliminary approval that includes a variation approval

c) What is the level of assessment?

☐ Code assessment

☐ Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots)*

e) Relevant plans

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).

☐ Relevant plans of the proposed development are attached to the development application

6.3) Additional aspects of development

☐ Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application

☒ Not required

Section 2 – Further development details

7) Does the proposed development application involve any of the following?

Material change of use	<input checked="" type="checkbox"/> Yes – complete division 1 if assessable against a local planning instrument
Reconfiguring a lot	<input type="checkbox"/> Yes – complete division 2
Operational work	<input type="checkbox"/> Yes – complete division 3
Building work	<input type="checkbox"/> Yes – complete <i>DA Form 2 – Building work details</i>

Division 1 – Material change of use

Note: This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

8.1) Describe the proposed material change of use

Provide a general description of the proposed use	Provide the planning scheme definition (include each definition in a new row)	Number of dwelling units (if applicable)	Gross floor area (m ²) (if applicable)
Car Wash Facility	Car Wash		

8.2) Does the proposed use involve the use of existing buildings on the premises?

<input type="checkbox"/> Yes		
<input checked="" type="checkbox"/> No		

Division 2 – Reconfiguring a lot

Note: This division is only required to be completed if any part of the development application involves reconfiguring a lot.

9.1) What is the total number of existing lots making up the premises?

--

9.2) What is the nature of the lot reconfiguration? (tick all applicable boxes)

<input type="checkbox"/> Subdivision (complete 10))	<input type="checkbox"/> Dividing land into parts by agreement (complete 11))
<input type="checkbox"/> Boundary realignment (complete 12))	<input type="checkbox"/> Creating or changing an easement giving access to a lot from a construction road (complete 13))

10) Subdivision

10.1) For this development, how many lots are being created and what is the intended use of those lots:

Intended use of lots created	Residential	Commercial	Industrial	Other, please specify:
Number of lots created				

10.2) Will the subdivision be staged?

<input type="checkbox"/> Yes – provide additional details below	
<input type="checkbox"/> No	
How many stages will the works include?	
What stage(s) will this development application apply to?	

11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts?

Intended use of parts created	Residential	Commercial	Industrial	Other, please specify:
Number of parts created				

12) Boundary realignment**12.1) What are the current and proposed areas for each lot comprising the premises?**

Current lot		Proposed lot	
Lot on plan description	Area (m ²)	Lot on plan description	Area (m ²)

12.2) What is the reason for the boundary realignment?

--

13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement? (attach schedule if there are more than two easements)

Existing or proposed?	Width (m)	Length (m)	Purpose of the easement? (e.g. pedestrian access)	Identify the land/lot(s) benefitted by the easement

Division 3 – Operational work

Note: This division is only required to be completed if any part of the development application involves operational work.

14.1) What is the nature of the operational work?

- | | | |
|--|-------------------------------------|--|
| <input type="checkbox"/> Road work | <input type="checkbox"/> Stormwater | <input type="checkbox"/> Water infrastructure |
| <input type="checkbox"/> Drainage work | <input type="checkbox"/> Earthworks | <input type="checkbox"/> Sewage infrastructure |
| <input type="checkbox"/> Landscaping | <input type="checkbox"/> Signage | <input type="checkbox"/> Clearing vegetation |
| <input type="checkbox"/> Other – please specify: <table border="1" style="display: inline-table; width: 400px; height: 20px;"></table> | | |

14.2) Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)
☐ Yes – specify number of new lots:

☐ No
14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)

\$

PART 4 – ASSESSMENT MANAGER DETAILS**15) Identify the assessment manager(s) who will be assessing this development application**

Mareeba Shire Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

- ☐ Yes – a copy of the decision notice is attached to this development application
- ☐ Local government is taken to have agreed to the superseded planning scheme request – relevant documents attached
- ☒ No

PART 5 – REFERRAL DETAILS**17) Do any aspects of the proposed development require referral for any referral requirements?**

Note: A development application will require referral if prescribed by the Planning Regulation 2017.

☐ No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

Matters requiring referral to the **chief executive of the Planning Regulation 2017**:

- ☐ Clearing native vegetation
- ☐ Contaminated land (unexploded ordnance)

<input type="checkbox"/> Environmentally relevant activities (ERA) <i>(only if the ERA have not been devolved to a local government)</i> <input type="checkbox"/> Fisheries – aquaculture <input type="checkbox"/> Fisheries – declared fish habitat area <input type="checkbox"/> Fisheries – marine plants <input type="checkbox"/> Fisheries – waterway barrier works <input type="checkbox"/> Hazardous chemical facilities <input type="checkbox"/> Queensland heritage place <i>(on or near a Queensland heritage place)</i> <input type="checkbox"/> Infrastructure – designated premises <input type="checkbox"/> Infrastructure – state transport infrastructure <input type="checkbox"/> Infrastructure – state transport corridors and future state transport corridors <input type="checkbox"/> Infrastructure – state-controlled transport tunnels and future state-controlled transport tunnels <input checked="" type="checkbox"/> Infrastructure – state-controlled roads <input type="checkbox"/> Land within Port of Brisbane's port limits <input type="checkbox"/> SEQ development area <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – community activity <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – indoor recreation <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – residential development <input type="checkbox"/> SEQ regional landscape and rural production area or SEQ Rural living area – urban activity <input type="checkbox"/> Tidal works or works in a coastal management district <input type="checkbox"/> Urban design <input type="checkbox"/> Water-related development – taking or interfering with water <input type="checkbox"/> Water-related development – removing quarry material <i>(from a watercourse or lake)</i> <input type="checkbox"/> Water-related development – referable dams <input type="checkbox"/> Water-related development – construction of new levees or modification of existing levees <i>(category 2 or 3 levees only)</i> <input type="checkbox"/> Wetland protection area
Matters requiring referral to the local government:
<input type="checkbox"/> Airport land <input type="checkbox"/> Environmentally relevant activities (ERA) <i>(only if the ERA have been devolved to local government)</i> <input type="checkbox"/> Local heritage places
Matters requiring referral to the chief executive of the distribution entity or transmission entity: <input type="checkbox"/> Electricity infrastructure
Matters requiring referral to: <ul style="list-style-type: none"> The chief executive of the holder of the licence, if not an individual The holder of the licence, if the holder of the licence is an individual <input type="checkbox"/> Oil and gas infrastructure
Matters requiring referral to the Brisbane City Council: <input type="checkbox"/> Brisbane core port land
Matters requiring referral to the Minister under the Transport Infrastructure Act 1994: <input type="checkbox"/> Brisbane core port land <input type="checkbox"/> Strategic port land
Matters requiring referral to the relevant port operator: <input type="checkbox"/> Brisbane core port land (below high-water mark and within port limits)
Matters requiring referral to the chief executive of the relevant port authority: <input type="checkbox"/> Land within limits of another port
Matters requiring referral to the Gold Coast Waterways Authority: <input type="checkbox"/> Tidal works, or development in a coastal management district in Gold Coast waters
Matters requiring referral to the Queensland Fire and Emergency Service: <input type="checkbox"/> Tidal works, or development in a coastal management district

18) Has any referral agency provided a referral response for this development application?

- ☐ Yes – referral response(s) received and listed below are attached to this development application
- ☒ No

Referral requirement	Referral agency	Date of referral response

Identify and describe any changes made to the proposed development application that was the subject of the referral response and the development application the subject of this form, or include details in a schedule to this development application (if applicable).

PART 6 – INFORMATION REQUEST**19) Information request under Part 3 of the DA Rules**

- ☒ I agree to receive an information request if determined necessary for this development application
- ☐ I do not agree to accept an information request for this development application

Note: By not agreeing to accept an information request I, the applicant, acknowledge:

- that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties
- Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.

Further advice about information requests is contained in the [DA Forms Guide](#).

PART 7 – FURTHER DETAILS**20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)**

- ☐ Yes – provide details below or include details in a schedule to this development application
- ☒ No

List of approval/development application references	Reference number	Date	Assessment manager
<input type="checkbox"/> Approval			
<input type="checkbox"/> Development application			
<input type="checkbox"/> Approval			
<input type="checkbox"/> Development application			

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

- ☐ Yes – the yellow local government/private certifier's copy of the receipted QLeave form is attached to this development application
- ☐ No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid
- ☒ Not applicable

Amount paid	Date paid (dd/mm/yy)	QLeave levy number (A, B or E)
\$		

22) Is this development application in response to a show cause notice or required as a result of an enforcement notice?

- ☐ Yes – show cause or enforcement notice is attached
- ☒ No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an **Environmentally Relevant Activity (ERA)** under section 115 of the *Environmental Protection Act 1994*?

☐ Yes – the required attachment (form EM941) for an application for an environmental authority accompanies this development application, and details are provided in the table below

☒ No

Note: Application for an environmental authority can be found by searching “EM941” at www.qld.gov.au. An ERA requires an environmental authority to operate. See www.business.qld.gov.au for further information.

Proposed ERA number:		Proposed ERA threshold:	
----------------------	--	-------------------------	--

Proposed ERA name:	
--------------------	--

☐ Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a **hazardous chemical facility**?

☐ Yes – Form 69: Notification of a facility exceeding 10% of schedule 15 threshold is attached to this development application

☒ No

Note: See www.justice.qld.gov.au for further information.

Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

☐ Yes – this development application is accompanied by written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)

☒ No

Note: See www.qld.gov.au for further information.

Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

☐ Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter

☒ No

Note: The environmental offset section of the Queensland Government's website can be accessed at www.qld.gov.au for further information on environmental offsets.

Koala conservation

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work within an assessable development area under Schedule 10, Part 10 of the Planning Regulation 2017?

☐ Yes

☒ No

Note: See guidance materials at www.ehp.qld.gov.au for further information.

Water resources

23.6) Does this development application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, taking overland flow water or waterway barrier works**?

☐ Yes – the relevant template is completed and attached to this development application

☒ No

Note: DA templates are available from www.dilgp.qld.gov.au.

23.7) Does this application involve **taking or interfering with artesian or sub artesian water, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water** under the *Water Act 2000*?

☐ Yes – I acknowledge that a relevant water authorisation under the *Water Act 2000* may be required prior to

commencing development

☒ No

Note: Contact the Department of Natural Resources and Mines at www.dnrm.qld.gov.au for further information.

Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants?**

☐ Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*

☒ No

Note: See guidance materials at www.daf.qld.gov.au for further information.

Quarry materials from a watercourse or lake

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000*?

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

Note: Contact the Department of Natural Resources and Mines at www.dnrm.qld.gov.au for further information.

Quarry materials from land under tidal waters

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995*?

☐ Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development

☒ No

Note: Contact the Department of Environment and Heritage Protection at www.ehp.qld.gov.au for further information.

Referable dams

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the *Water Supply Act*)?

☐ Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the *Water Supply Act* is attached to this development application

☒ No

Note: See guidance materials at www.dews.qld.gov.au for further information.

Tidal work or development within a coastal management district

23.12) Does this development application involve **tidal work or development in a coastal management district?**

☐ Yes – the following is included with this development application:

☐ Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)

☐ A certificate of title

☒ No

Note: See guidance materials at www.ehp.qld.gov.au for further information.

Queensland and local heritage places

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

☐ Yes – details of the heritage place are provided in the table below

☒ No

Note: See guidance materials at www.ehp.qld.gov.au for information requirements regarding development of Queensland heritage places.

Name of the heritage place:

Place ID:

Brothels

23.14) Does this development application involve a **material change of use for a brothel?**

☐ Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*

☒ No

Decision under section 62 of the *Transport Infrastructure Act 1994*

23.15) Does this development application involve new or changed access to a state-controlled road?

- ☒ Yes - this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)
- ☐ No

PART 8 – CHECKLIST AND APPLICANT DECLARATION**24) Development application checklist**

I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17

☒ Yes**Note:** See the *Planning Regulation 2017* for referral requirementsIf building work is associated with the proposed development, Parts 4 to 6 of *Form 2 – Building work details* have been completed and attached to this development application☐ Yes☒ Not applicable

Supporting information addressing any applicable assessment benchmarks is with development application

Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see [DA Forms Guide: Planning Report Template](#).☒ Yes

Relevant plans of the development are attached to this development application

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).☒ Yes

The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21))

☐ Yes☒ Not applicable**25) Applicant declaration**☒ By making this development application, I declare that all information in this development application is true and correct☒ Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the *Electronic Transactions Act 2001***Note:** It is unlawful to intentionally provide false or misleading information.

Privacy – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.

Personal information will not be disclosed for a purpose unrelated to the *Planning Act 2016*, *Planning Regulation 2017* and the *DA Rules* except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the *Planning Act 2016* and the *Planning Regulation 2017*, and the access rules made under the *Planning Act 2016* and *Planning Regulation 2017*; or
- required by other legislation (including the *Right to Information Act 2009*); or
- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the *Public Records Act 2002*.

PART 9 – FOR OFFICE USE ONLY

Date received: Reference number(s):

Notification of engagement of alternative assessment manager

Prescribed assessment manager	
Name of chosen assessment manager	
Date chosen assessment manager engaged	
Contact number of chosen assessment manager	
Relevant licence number(s) of chosen assessment manager	

QLeave notification and payment

Note: For completion by assessment manager if applicable

Description of the work	
QLeave project number	
Amount paid (\$)	
Date paid	
Date receipted form sighted by assessment manager	
Name of officer who sighted the form	

The *Planning Act 2016*, the *Planning Regulation 2017* and the *DA Rules* are administered by the Department of Infrastructure, Local Government and Planning. This form and all other required development application materials should be sent to the assessment manager.