PLANNING AND REGULATORY COMMITTEE MEETING

AGENDA

28 FEBRUARY 2017

Your attendance is required at a meeting of the Planning and Regulatory Committee to be held in the Council Chambers, 232 Bolsover Street, Rockhampton on 28 February 2017 commencing at 9.00am for transaction of the enclosed business.

ACTING CHIEF EXECUTIVE OFFICER
21 February 2017
Please note:

In accordance with the *Local Government Regulation 2012*, please be advised that all discussion held during the meeting is recorded for the purpose of verifying the minutes. This will include any discussion involving a Councillor, staff member or a member of the public.
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1 OPENING

2 PRESENT

Members Present:
- Councillor C E Smith (Chairperson)
- The Mayor, Councillor M F Strelow
- Councillor N K Fisher
- Councillor C R Rutherford
- Councillor M D Wickerson

In Attendance:
- Mr R Cheesman – Acting Chief Executive Officer

3 APOLOGIES AND LEAVE OF ABSENCE

4 CONFIRMATION OF MINUTES

Minutes of the Planning and Regulatory Committee held 14 February 2017

5 DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA
6 BUSINESS OUTSTANDING

Nil
7 PUBLIC FORUMS/DEPUTATIONS

7.1 D/141-2016 - DEPUTATION - DEVELOPMENT APPLICATION FOR A MATERIAL CHANGE OF USE FOR A MULTIPLE DWELLING (THIRTEEN UNITS)

File No: D/141-2016
Attachments: Nil
Authorising Officer: Tarnya Fitzgibbon - Coordinator Development Assessment
Steven Gatt - Manager Planning & Regulatory Services
Michael Rowe - General Manager Community Services
Author: Amanda O'Mara - Senior Planning Officer

SUMMARY
Development Application Number: D/141-2016
Applicant: Aeon Projects Pty Ltd Tte
Real Property Address: Lot 20 on SP262830, Parish of Rockhampton
Common Property Address: 37 Alma Street, Rockhampton City
Approval Sought: Development Permit for a Material Change of Use for a Multiple Dwelling (thirteen units)

Council in receipt of an application for a Development Application for a Material Change of Use for a Multiple Dwelling (thirteen units), made by GSPC, on behalf of Aeon Projects Pty Ltd Tte, on land described as Lot 20 on SP262830, Parish of Rockhampton, located at 37 Alma Street, Rockhampton City.

The application is to be presented to the Planning and Regulatory Committee meeting on 28 February 2017.

Don Close (Applicant) and Sunil Govind (GSPC) have requested the opportunity to have a deputation with the Council at the Planning and Regulatory Committee meeting to provide justification to support the proposed development.

OFFICER'S RECOMMENDATION
THAT the deputation by Don Close and Sunil Govind be ‘received’
8 OFFICERS' REPORTS

8.1 D/141-2016 - DEVELOPMENT APPLICATION FOR A MATERIAL CHANGE OF USE FOR A MULTIPLE DWELLING (THIRTEEN UNITS)

File No: D/141-2016
Attachments: 1. Locality Plan
2. Site Plan
3. Elevations
4. Floor Plans

Authorising Officer: Tarnya Fitzgibbon - Coordinator Development Assessment
Steven Gatt - Manager Planning & Regulatory Services
Michael Rowe - General Manager Community Services

Author: Amanda O'Mara - Senior Planning Officer

SUMMARY
Development Application Number: D/141-2016
Applicant: Aeon Projects Pty Ltd Tte
Real Property Address: Lot 20 on SP262830, Parish of Rockhampton
Common Property Address: 37 Alma Street, Rockhampton City
Area of Site: 2,529 square metres
Planning Scheme: Rockhampton Region Planning Scheme 2015
Planning Scheme Zone: High Density Residential Zone
Planning Scheme Overlays: Nil
Existing Development: Vacant Land
Existing Approvals: Nil
Approval Sought: Development Permit for a Material Change of Use for a Multiple Dwelling (thirteen units)
Level of Assessment: Code Assessable
Submissions: Not Applicable
Referral Agency(s): Department of Infrastructure, Local Government and Planning
Infrastructure Charges Area: Charge Area 2

OFFICER’S RECOMMENDATION

THAT in relation to the application for a Development Permit for a Material Change of Use for a Multiple Dwelling (thirteen units), made by GSPC on behalf of Aeon Projects Pty Ltd Tte, on Lot 20 on SP262830, Parish of Rockhampton, located at 37 Alma Street, Rockhampton City, Council resolves to Refuse the application for the following reasons:

a) The proposal is inconsistent with the purpose of the High Density Residential Zone as it is not designed at an appropriate scale and size that reflects the purpose of the Zone. The proposed development density, building height and design is reflective of the Low Density Residential Zone not the High Density Residential Zone.

b) The proposed development is for thirteen (13) units when the High Density Residential Zone Code calls for approximately 125 units for the site.

c) This development is suited in scale, design and amenity, to a low density residential
area. The amenity of the Central Business District will be compromised by allowing low density development to infiltrate into an area zoned particularly for, and designed to cater for, high density residential living.

d) The proposal conflicts with both the strategic framework and purpose of the High Density Residential Zone under the Rockhampton Region Planning Scheme 2015.

e) The proposal conflicts with the various codes it is being assessed against, particularly the High Density Residential Zone Code.

BACKGROUND

PROPOSAL IN DETAIL

The proposal is for a Multiple Dwelling incorporating single and double storey units comprising of eight (8) two (2) bedroom units and five (5) one (1) bedroom units. Each unit will have a single enclosed garage accessible from the internal driveway. In addition, the development provides seven (7) parallel car parks for visitors along the northern side of the site. The main access will be via Alma Street.

SITE AND LOCALITY

The subject site is within the High Density Residential Zone and is currently vacant land with total area of 2,529 square metres. The site is relatively flat with no vegetation. The site has two street frontages to Alma Street and to Bolsover Lane.

The immediate surrounding area of the subject site consists of a range of uses from one or two-storey residential uses, commercial uses and short-term accommodation.

PLANNING ASSESSMENT

MATTERS FOR CONSIDERATION

This application has been assessed by relevant Council planning, engineering, environmental health, and other technical officers as required. The assessment has been in accordance with the Integrated Development Assessment System provisions of the Sustainable Planning Act 2009, based on consideration of the relevant State Planning Policy; State Government guidelines; the Council’s Town Planning Scheme, Planning Policies and other general policies and procedures, as well as other documents as considered relevant.

Development Engineering Comments – 25 January 2017
Support, subject to conditions.

Public and Environmental Health Comments – 29 August 2016
Support, subject to conditions.

TOWN PLANNING COMMENTS

Central Queensland Regional Plan 2013

The Central Queensland Regional Plan 2013 is a statutory document which came into effect on 18 October 2013. The development is not required to be assessed against the regional plan if this document is appropriately reflected in the local planning scheme. It is considered that the regional plan is appropriately reflected in the current local planning scheme.

State Planning Policy 2014

This policy came into effect in July 2014 and replaced all former State Planning Policies. This policy is appropriately reflected in the planning scheme.

Rockhampton Region Planning Scheme 2015

Strategic framework

This application is situated within the Urban Infill and Intensification designation under the scheme’s strategic framework map. The strategic framework themes and their strategic
outcomes, as identified within Part 3 of the Rockhampton Region Planning Scheme 2015 are applicable:

(i) Settlement pattern

(1) The pattern of settlement is reinforced in accordance with the Strategic framework – settlement pattern maps (SFM-1 to SFM-4) and as defined in Table 3.3.2.2 – Strategic map designations and descriptions. Sufficient land has been allocated for residential, commercial, industrial and community uses to meet the needs of the region for at least twenty-five (25) years.

(2) Residential development within Rockhampton and Gracemere will occur in urban areas, urban infill and intensification areas and new urban areas (greenfield areas). These areas are shown on the strategic framework maps SFM-2 to SFM-3.

(3) Urban development in Mount Morgan will only occur within the urban area and local centre as shown on strategic framework map SFM-4.

(4) Residential development is compact, encourages strong neighbourhoods with attractive places for residents, makes efficient use of land and optimises the delivery and use of infrastructure and services. Expansion beyond these identified areas will not occur to ensure a focus on urban infill and intensification areas and to avoid further encroachment on natural assets and ecologically vulnerable areas.

(5) Sufficient land for employment growth has been identified in industrial areas, new industrial areas and centres (including proposed centres) at locations that can be most efficiently serviced with infrastructure and facilities.

(6) Future urban areas and future industrial areas are the preferred location for greenfield development beyond 2026.

(7) The settlement pattern provides for a diverse range of housing to meet changing demographic needs, and creates opportunities for more affordable living close to services and facilities. These housing options will help stimulate centres and community focal points, and assist in making the most efficient use of infrastructure and other public investment.

(8) Higher density development is focussed around centres and public transport nodes and corridors. Increased residential densities will be encouraged in the urban infill and intensification areas in a range of dwelling types that are located to make public transport, walking and cycling more convenient, safe and viable.

(9) The design of the built environment (including buildings, streets and public spaces) is consistent with the existing or desired character of the area and buildings are oriented to the street and public places. Development is undertaken in accordance with urban design principles.

(10) Centres provide for employment, retail, accommodation, entertainment and community services that meet the needs of residential communities that are well connected by the public transport network.

(11) Centres are based on a hierarchy that ensures the scale and form of development is appropriate to the location, and that the centres’ roles and functions are appropriate within the wider planning scheme area.

(12) Centres are consolidated within designated areas, and expansion does not occur into adjoining residential areas.

(13) An integrated and high quality public open space network caters for the needs of residents, particularly in and around centres and higher density areas.
(14) The continuing viability of areas that provide for economic development such as industrial and specific use areas is protected from incompatible land uses.

(15) Limited rural residential areas provide for semi-rural living; however, these areas do not expand beyond the areas designated.

(16) The productive capacity of all rural land is protected.

(17) Rural lands and natural areas are maintained for their rural and landscape values.

(18) The scenic and environmental values of areas identified as nature conservation or natural corridor link are protected.

(19) The cultural heritage of Rockhampton is conserved for present and future communities.

(20) Development responds to natural hazards (flooding, bushfire, steep land, storm tide inundation and coastal erosion) by avoiding, mitigating, adapting and building resilience to natural hazards in areas mapped as being susceptible.

**Does not comply.** The strategic framework identifies this area for urban infill development, whereby the focus is for high density residential development. The proposed development density, building height and design is reflective of the Low Density Residential Zone not the High Density Residential Zone.

(ii) **Natural environment and hazards**

(1) The natural environment and landscape are highly valued by the community for their contribution to the planning scheme area’s biodiversity, economic prosperity, culture, character and sense of place. These areas are to be protected from incompatible development.

(2) Development does not create unsustainable impacts on:

(a) the natural functioning of floodplains;

(b) environmentally significant areas, including areas of state and locally significant vegetation, which provide fauna habitat and support biodiversity; and

(c) the quality of water entering waterways, wetlands and local catchments.

(3) Development does not increase the risk to human life and property in areas that are affected, or potentially affected, by storm-surge, erosion, sea-level rise or other coastal processes, flooding, bushfire, or landslide. This occurs through the avoidance of natural hazards in new development areas, particularly greenfield areas and the mitigation of risks in existing built up areas.

(4) Strategic and iconic scenic and landscape values are protected from potential adverse impacts of development.

**Not applicable.** The site is not located in an environmentally significant area and is not affected by any natural hazard overlays.

(iii) **Community identity and diversity**

(1) The quality of life of residents is enhanced through equitable access to social infrastructure, community services and facilities necessary to support community health and well-being.

(2) The community is self-sufficient and does not rely on services and facilities located in other regions. Development contributes to the provision of new social infrastructure, including land.
(3) Cultural heritage including character housing and heritage buildings are conserved and enhanced.

(4) Public places are safe, functional, characterised by good urban design, and include a range of facilities to encourage healthy and active lifestyles.

(5) Crime prevention through environmental design is achieved in urban areas including public spaces to improve public safety.

**Complies.** The proposal provides for residential accommodation located within an area with close proximity to social infrastructure, community services and facilities.

(iv) **Access and mobility**

(1) Connectivity is achieved between residential uses, employment centres and services through the provision of active transport infrastructure integrated with efficient public transport services.

(2) The trunk transport network (as shown on the strategic framework maps SFM-9 to SFM-12 and in plans for trunk infrastructure in the local government infrastructure plan) supports the settlement pattern and the local economy by facilitating the efficient and safe movement of people and goods both within the planning scheme area (especially between the main urban centres of Rockhampton and Gracemere), and to and from other locations.

(3) The transport network encourages and supports active living in centres by providing for integrated walking, cycling, and public transport infrastructure to support a progressive reduction in car dependency.

(4) The safety and efficiency of transport infrastructure, including the Bruce and Capricorn highways and other state and local roads, rail, airport and seaports, are not compromised by development.

**Complies.** The proposal is urban infill development adjoining the Central Business District area with infrastructure offering connectivity to services and centres.

(v) **Infrastructure and services**

(1) Infrastructure and services are planned and delivered in a logical and cost efficient manner in support of the planned settlement pattern. It is fit for purpose and is sensitive to cultural and environmental values. In particular:
   
   (a) efficient, affordable, reliable, timely and lasting infrastructure makes best use of public resources;

   (b) the long-term needs of the community, industry and business are met; and

   (c) the desired standards of service in Part 4 — Local government infrastructure plan are achieved.

**Complies.** The proposal is for urban infill development, therefore the site is already connected to the necessary infrastructure and services.

(vi) **Natural resources and economic development**

(1) The economy of the planning scheme area continues to grow and provides the community with diverse and new employment opportunities. Rockhampton continues to strengthen as the retail, service, cultural and administrative centre for both the planning scheme area and the wider Central Queensland region.

(2) The strategic importance of Rockhampton for transport and logistics industries is fostered, given its central location at the junction of the Bruce Highway, the Capricorn Highway (through to the Landsborough Highway) and the Burnett Highway (through to the Leichhardt Highway).
The local community continues to value its traditional economic assets and natural resources and protects and conserves them and the contribution they make to maintaining and growing the region’s economic prosperity, culture, character and sense of place. The region’s traditional economic sectors of tourism and agriculture (including the iconic beef industry) continue to strengthen.

Development protects and, where possible, leverages the intrinsic economic value of the region’s natural resources, including productive grazing, agricultural and forestry land, extractive and mineral resources, marine and coastal resources, and existing and planned water resources, including watercourses, water bodies and groundwater.

Natural assets identified by this planning scheme are protected as they underpin current and emerging tourism opportunities and important lifestyle values for residents.

Does not comply. The proposal for low density development in an area zoned particularly for, and designed to cater for, high density residential living close to the Central Business District. The success of the Central Business District relies on building critical mass. This can be achieved by providing higher density residential living opportunities in close proximity to the Central Business District boundaries. The flow on effects of creating attractive inner city living options are increases in centre activity and in the viability of commercial and retail uses.

The performance assessment of the proposal demonstrates that the development will compromise the Rockhampton Region Planning Scheme 2015 strategic outcomes.

High Density Residential Zone

The subject site is situated within the High Density Residential Zone under the Rockhampton Region Planning Scheme 2015. The purpose of the High Density Residential Zone identifies that:

1. The purpose of the high density residential zone is to provide for higher density multiple dwellings supported by community related activities and small-scale services and facilities that cater for local residents.
2. The local government purpose of the zone code is to:
   (a) provide locations preferred for the consolidation of multiple dwellings developed at the highest densities in the planning scheme area; and
   (b) ensure that development within the zone has appropriate standards of infrastructure and essential services.
3. The purposes of the zone will be achieved through the following overall outcomes:
   (a) development provides for long-term residential development (such as multiple dwellings and the like) and short-term accommodation being generally a high-rise built form at a high density;
   (b) mixed-use development locates non-residential uses at ground level and the non-residential uses are focused towards supporting the convenience needs of the community including uses such as food and drink outlets and shops (limited in scale);
   (c) non-residential uses occur within the zone where they:
      (i) do not compromise the residential character and existing amenity of the surrounding area;
      (ii) are small-scale and consistent with the surrounding urban form;
(iii) primarily function to service the needs of the immediate local residential community;
(iv) do not detract from the role and function of centres; and
(v) do not result in the expansion of a centre zone;

(d) development has a built form that creates an attractive and pedestrian oriented streetscape and is integrated with nearby centres of activity, community facilities, open space and recreation facilities;

(e) development maximises opportunities for surveillance, activation of street fronts, integration with surrounding streetscapes, and presents an attractive appearance to the street with variations in built form, shape and colour;

(f) buildings reflect high density residential living in terms of height and scale;

(g) continued focus on the establishment of food and drink outlets (restaurants and cafes) at the ground floor level within a high quality streetscape;

(h) development along Victoria Parade is designed to address parklands along the Fitzroy River;

(i) development maintains a high level of residential amenity having regard to traffic, noise, dust, odour, lighting and other locally specific impacts;

(j) new residential developments are located and integrated with existing neighbourhoods and in proximity to existing community infrastructure;

(k) development is sited and designed to respond to the region’s climate (sustainable practices for maximising energy efficiency, water conservation and public/active transport use), local heritage features, natural landscape features and environmental constraints (including but not limited to topography, bushfire and flooding);

(l) development provides connection to pathways, cycle ways, roads and public transport infrastructure commensurate with the needs of the use; and

(m) development is serviced by infrastructure that is commensurate with the needs of the use.

This application is not consistent with the purpose of the Zone. The density requirement for the High Density Residential Zone is outlined in Schedule 3.2.1; the scale of developments in this zone is be 610 units per hectare. Therefore for this site, approximately 125 units are expected / appropriate for the land area. It is widely accepted that ‘high rise’ is a building of four storeys or greater.

Rockhampton Regional Planning Scheme Codes
The following codes are applicable to this application: -

- High Density Residential Zone
- Access, Parking and Mobility Code;
- Landscape Code;
- Stormwater Management Code;
- Waste Management Code; and
- Water Sewer Code.
An assessment has been made against the requirements of the abovementioned. An assessment of the Performance outcome which the application is in conflict with, is outlined below:

<table>
<thead>
<tr>
<th>High Density Residential Zone Code</th>
<th>Officer’s Response</th>
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<tr>
<td>Performance Outcome</td>
<td>The Performance Outcome states that development is located and designed so that buildings and structures make provision for an appropriate scale and size that reflects the purpose of the zone. The expected number of units for this site (based on land area), should be approximately 125 units. The proposal is in direct conflict with the purpose of the zone.</td>
</tr>
</tbody>
</table>
| P07 | The development is located and designed so that buildings and structures make provision for:  
(a) an appropriate scale and size that reflects the purpose of the zone;  
(b) access to natural light and ventilation;  
(c) landscaping;  
(d) privacy and noise attenuation;  
(e) screening of materials when stored outside buildings;  
(f) integration with the streetscape and built form;  
(g) orientated to the street frontage;  
(h) landscape features of the site; and  
(i) access to open space. |

Based on a performance assessment of the above mentioned codes, it is determined that the proposal is not acceptable and does not comply with all the relevant Specific Outcomes.

**INFRASTRUCTURE CHARGES**

Adopted Infrastructure Charges Resolution (No. 5) 2015 for residential development applies to the application and it falls within Charge Area 2. The Infrastructure Charges are as follows:

<table>
<thead>
<tr>
<th>Column 1 Use Schedule</th>
<th>Column 2 Charge Area</th>
<th>Column 3 Adopted Infrastructure Charge for residential development ($/dwelling unit)</th>
<th>Column 4 Unit</th>
<th>Calculated Charge</th>
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<tr>
<td>Residential</td>
<td>Area 2</td>
<td>8,500</td>
<td>n/a</td>
<td>$110,500.00</td>
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<tr>
<td></td>
<td></td>
<td>1 or 2 bedroom dwelling</td>
<td>per dwelling</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>3 or more bedroom dwelling</td>
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</table>

Total $110,500.00
Less credit $12,000.00
Total $98,500.00
This is based on the following calculations:

(a) A charge of $110,500.00 for thirteen (13) 1-2 bedroom units; and

(b) An infrastructure credit of $12,000.00 for the existing allotment.

Therefore, a total charge of $98,500.00 is payable for the development, however the recommendation is for a refusal, therefore an infrastructure charges notice will not be required.

REFERRALS

The subject site abuts a road that intersects with a State-controlled road within 100 metres. Therefore, the Department of State Development, Infrastructure and Planning were triggered as a concurrence agency. The department supported the application, subject to the conditions provided on 10 October 2016.

CONCLUSION

Having regard to all of the above, it is recommended Council, from a land use perspective, does not consider the proposed development favourably as it is argued that there are not sufficient grounds to justify the proposed development in this instance.
D/141-2016 - DEVELOPMENT APPLICATION FOR A MATERIAL CHANGE OF USE FOR A MULTIPLE DWELLING (THIRTEEN UNITS)

Locality Plan

Meeting Date: 28 February 2017

Attachment No: 1
D/141-2016 - DEVELOPMENT APPLICATION FOR A MATERIAL CHANGE OF USE FOR A MULTIPLE DWELLING (THIRTEEN UNITS)

Site Plan

Meeting Date: 28 February 2017

Attachment No: 2
D/141-2016 - DEVELOPMENT APPLICATION FOR A MATERIAL CHANGE OF USE FOR A MULTIPLE DWELLING (THIRTEEN UNITS)

Elevations

Meeting Date: 28 February 2017

Attachment No: 3
D/141-2016 - DEVELOPMENT APPLICATION FOR A MATERIAL CHANGE OF USE FOR A MULTIPLE DWELLING (THIRTEEN UNITS)

Floor Plans

Meeting Date: 28 February 2017

Attachment No: 4
8.2 D/116-2008 - REQUEST FOR A PERMISSIBLE CHANGE TO DEVELOPMENT PERMIT FOR A MATERIAL CHANGE OF USE FOR A WAREHOUSE

File No: D/116-2008
Authorising Officer: Tarnya Fitzgibbon - Coordinator Development Assessment
Steven Gatt - Manager Planning & Regulatory Services
Michael Rowe - General Manager Community Services
Author: Thomas Gardiner - Planning Officer

SUMMARY
Development Application Number: D-R/116-2008
Applicant: PFD Food Services Pty Ltd (C/-HPC Urban Design + Planning)
Real Property Address: Lot 24 on RP603516 and Lot 25 on RP603516, Parish of Murchison
Common Property Address: 4-6 Hempenstall Street, Kawana
Area of Site: 4,046 square metres
Planning Scheme: Rockhampton City Plan 2005 (superseded)
Planning Scheme Area: Parkhurst Industrial Area, Precinct 1 – Industrial Precinct, Parkhurst Low Impact Industry (superseded)
Planning Scheme Overlays: Nil
Existing Development: Warehouse
Existing Approvals: Development Permit (D/116-2008) for a Material Change of Use for a Warehouse
Approval Sought: Amended Decision Notice for Development Permit (D/116-2008) for a Warehouse
Infrastructure Charges Area: Charge Area 1

OFFICER’S RECOMMENDATION
THAT to reflect the above changes to conditions, PFD Food Services Pty Ltd C/- HPC Urban Design + Planning be issued with an Amended Decision Notice for a Development Permit D/116-2008 for a Material Change of Use for a Warehouse, on land described as Lot 24 on RP603516 and Lot 25 on RP603516, Parish of Murchison, located at 4-6 Hempenstall Street, Kawana:

1.0 ADMINISTRATION
1.1 The approved use and development must be completed and maintained generally in accordance with the approved drawings and documents, except where amended by the conditions of this permit:

<table>
<thead>
<tr>
<th>Plan/Document Name</th>
<th>Plan Number</th>
<th>Dated</th>
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<tr>
<td>Proposed Site Layout Plan</td>
<td>16-002185 SK01 Rev 2</td>
<td>December 2016</td>
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<td>Existing Elevations</td>
<td>1683 WD-02 Rev. B</td>
<td>5 February 2014</td>
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<td>Proposed Elevation</td>
<td>1683 WD-03 Rev. D</td>
<td>5 February 2014</td>
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<td>Vehicle Movement Plan</td>
<td>16-002185 SK03 Rev 2</td>
<td>December 2016</td>
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<td>Stormwater Management Plan</td>
<td>16-002185 SK02 Rev 2</td>
<td>December 2016</td>
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<td>Noise modelling of PFD Food</td>
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<td>20 January 2017</td>
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<td>Services Site in Rockhampton</td>
<td>-</td>
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<td>Technical Memo – Stormwater</td>
<td>-</td>
<td>12 December 2016</td>
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<td>Management</td>
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1.2 Where there is any conflict between conditions of this decision notice and details shown on the approved plans, the conditions of approval must prevail.

1.3 Where these Conditions refer to “Council” in relation to requiring Council to approve or to be satisfied as to any matter, or conferring on the Council a function, power or discretion, that role of the Council may be fulfilled in whole or in part by a delegate appointed for that purpose by the Council.

1.4 The Developer is responsible for ensuring compliance with this Approval and the Conditions of the Approval by an employee, agent, contractor or invitee of the Developer.

1.5 All conditions, works, or requirements of this approval must be undertaken and completed to the satisfaction of Council.

1.6 The following further development permits are required prior to the commencement of any works on the site:

1.6.1 Operational Works:
   (i) Access and Parking;
   (ii) Stormwater Works;
   (iii) Site Works; and
   (iv) Landscaping.

1.6.2 Plumbing and Drainage Works; and

1.6.3 Building Works.

1.7 All Development Permits for Operational Works and Plumbing and Drainage Works must be obtained prior to the issue of a Development Permit for Building Works.

1.8 Deleted.

1.9 Any outstanding rates, charges or expenses levied by the Council over the subject land must be paid prior to the issue of a Development Permit for Building Works.

2.0 ACCESS AND PARKING

2.1 A Development Permit for Operational Works (access and parking) must be obtained prior to the commencement of any works on the site.

2.2 All car parking and access areas must be paved or sealed to the satisfaction of Council. Design and construction must be in accordance with the Capricorn Municipal Development Guidelines, Australian Standards and the provisions of a Development Permit for Operational Works (access and parking). The layout must be generally in accordance with the endorsed plans (refer to condition 1.1).

2.3 On-site parking, manoeuvring areas and accesses must be designed and constructed in accordance with Australian Standard 2890. The design must ensure that all vehicles enter and leave the site in a forward gear.

2.4 All access ways, both internal and external to the must be designed and constructed in accordance with Australian Standard 1428 for equitable access and mobility.
2.5 All stormwater runoff from parking and access areas must be collected and drained to a lawful point of discharge.

2.6 All redundant vehicular crossing(s) must be removed and replaced with Council’s standard kerb and channel in accordance with the Capricorn Municipal Development Guidelines, prior to the commencement of use. Details of the works must be submitted as part of any application for a Development Permit for Operational Works (access and parking).

3.0 SEWERAGE WORKS

3.1 The development must be connected to Council’s reticulated sewerage network in accordance with the provisions of the Water Act and Plumbing and Drainage Act. Council’s preference is that the existing sewer connection be retained to service the development.

3.2 Any construction works proposed in the vicinity of Council’s existing sewerage infrastructure must not adversely affect the integrity of the infrastructure.

3.3 The development must comply with Council’s Building Over Sewer Policy.

3.4 A trade waste permit must be obtained for the washdown bay prior to the issue of a Development Permit for Building Works.

3.5 All sanitary drainage works must be in accordance with regulated work under the Plumbing and Drainage Act.

4.0 WATER WORKS

4.1 The development must be connected to Council’s reticulated water network in accordance with the provisions of the Water Act and Plumbing and Drainage Act. Council’s preference is that the existing water connection be retained to service the development.

4.2 Any construction works proposed in the vicinity of Council’s existing water infrastructure must not adversely affect the integrity of the infrastructure.

4.3 All plumbing works must be in accordance with regulated work under the Plumbing and Drainage Act.

5.0 STORMWATER WORKS

5.1 A Development Permit for Operational Works (stormwater works) must be obtained prior to the commencement of any works on the site.

5.2 All stormwater runoff from the subject site, and roof water and water from paved surfaces, must be collected within the site and directed to a lawful point of discharge, in accordance with Council requirements, the Queensland Urban Drainage Manual and the Capricorn Municipal Design Guidelines. The development must not adversely affect any other land by way of blocking, altering or diverting existing stormwater runoff patterns or have the potential to cause damage to other infrastructure items.

Note: The kerb adaptor for the southernmost driveway trench grate had not been installed properly and the pipe was exposed within the verge area. This needs to be rectified.

6.0 SITE WORKS

6.1 A Development Permit for Operational Works (site works) must be obtained prior to the commencement of any works on the site.

6.2 Any application for a Development Permit for Operational Works (site works) must be accompanied by an earthworks’ plan which clearly identifies the following:

6.3 the location of cut and/or fill;

(i) the type of fill to be used and the manner in which it is to be compacted;
the quantum of fill to be deposited or removed and finished cut and/or fill levels;

(iii) details of any proposed access routes to the site which are intended to be used to transport fill to or from the site; and

(iv) the maintenance of access roads to and from the site so that they are free of all cut and/or fill material and cleaned as necessary.

6.4 Any vegetation cleared or removed must be:

(i) mulched on-site and utilised on-site for landscaping purposes, in accordance with the landscaping plan approved by Council; or

(ii) removed for disposal at a location approved by Council;

within sixty (60) days of clearing. Any vegetation removed must not be burnt.

7.0 BUILDING

7.1 All external elements, such as air conditioners, must be adequately screened from public view, to Council’s satisfaction. Noise from any external elements, such as air conditioners, must not exceed 5dB(A) above the background ambient noise level, measured at the boundaries of the subject site.

7.2 All lift motor rooms, plant and service facilities must be totally enclosed or screened using materials consistent with those elsewhere in the building. Noise from any lift motor room must not exceed 5dB(A) above the background ambient noise level, measured at the boundaries of the subject site.

7.3 Any lighting devices associated with the development, such as sensory lighting, must be positioned on the site and shielded so as not to cause glare or other nuisance to nearby residents and motorists. Night lighting must be designed, constructed and operated in accordance with ‘Australian Standard AS4282 – Control of the obtrusive effects of outdoor lighting’.

8.0 LANDSCAPING

8.1 A Development Permit for Operational Works (landscaping) must be obtained prior to the commencement of any works on the site.

8.2 Any application for a Development Permit for Operational Works (landscaping) must be in accordance with the endorsed (refer condition 1.1). The landscape plan must include, but is not limited to, the following:

8.2.1 A plan documenting the “Extent of Works” and supporting documentation which includes:

(i) location and name of existing trees, including those to be retained (the location of the trees shall be overlayed or be easily compared with the proposed development design);

(ii) the extent of soft and hard landscape proposed;

(iii) important spot levels and/or contours. The levels of the trees to be retained shall be provided in relation to the finished levels of the proposed buildings and works;

(iv) underground and overhead services;

(v) typical details of critical design elements (eg stabilisation of batters, retaining walls, podium/balcony planters, trees in car park areas, fences);

(vi) details of landscape structures including areas of deep planting; and

(vii) specification notes on mulching and soil preparation.

8.2.2 A “Planting Plan” and supporting documentation which includes:

(i) trees, shrubs and groundcovers to all areas to be landscaped;
(ii) position and canopy spread of all trees and shrubs;

(iii) the extent and type of works (i.e. paving, fences, garden bed edging etc). All plants shall be located within an edged garden; and

(iv) a plant schedule with the botanic and common names, total plant numbers and pot sizes at the time of planting.

8.3 The landscaped areas must be subject to an ongoing maintenance and replanting programme (if necessary).

9.0 ELECTRICITY AND TELECOMMUNICATIONS

9.1 The use must not commence unless and until the use has been provided with live underground electricity and telecommunication connections in accordance with the requirements of the relevant authority.

9.2 Provide street lighting and public space lighting in accordance with the relevant Australian Standards.

10.0 CONTRIBUTIONS/COSTS

10.1 Any alteration necessary to electricity, telephone, water mains, sewerage mains, and/or public utility installations resulting from the development or in connection with the development, must be at full cost to the developer.

10.2 All frontage works damaged as a result of the development must be repaired or replaced, to Council’s satisfaction, prior to the commencement of the use. All works must be at full cost to the developer.

11.0 ENVIRONMENTAL

11.1 Any application for a Development Permit for Operational Works or a Development Permit for Building Works must be accompanied by a detailed Environmental Management Plan, which addresses, but is not limited to, the following matters:

(i) water quality and drainage;

(ii) erosion and silt/sedimentation management;

(iii) acid sulphate soils;

(iv) fauna management;

(v) vegetation management and clearing;

(vi) top soil management;

(vii) interim drainage plan during construction;

(viii) construction programme;

(ix) geotechnical issues;

(x) weed control;

(xi) bushfire management;

(xii) emergency vehicle access;

(xiii) noise and dust suppression; and

(xiv) waste management.

11.2 Any application for a Development Permit for Operational Works or Development Permit for Building Works must be accompanied by an Erosion and Sediment Control Plan which addresses, but is not limited to, the following:

(i) objectives;

(ii) site location / topography;
(iii) vegetation;
(iv) site drainage;
(v) soils;
(vi) erosion susceptibility;
(vii) erosion risk;
(viii) concept;
(ix) design; and
(x) implementation, for the construction and post construction phases of work.

The erosion and sediment control plan must incorporate detailed plans, control measures, monitoring programmes and maintenance procedures to ensure appropriate development and management practices within and adjacent to the site.

11.3 The Environmental Management Plan and the Erosion and Sediment Control Plan approved as part of a Development Permit for Operational Works must be part of the contract documentation for the development works.

11.4 No works can commence on the site unless and until an Environmental Management Plan and an Erosion and Sediment Control Plan has been approved by Council as part of Development Permit for Operational Works.

12.0 OPERATING PROCEDURES

12.1 All construction materials, waste, waste skips, machinery and contractors’ vehicles must be located and stored or parked within the site. No storage of materials, parking of construction machinery or contractors’ vehicles will be permitted in Hempenstall Street.

12.2 Noise from the activity must not cause an environmental nuisance.

12.3 Noise mitigation measures and recommendations must be implemented in accordance with the approved acoustic documents (refer to condition 1.1).

12.4 When requested by the administering authority, noise monitoring must be undertaken and recorded to investigate any noise complaint. In this situation the endorsed acoustic documents (refer condition 1.1) must be revised by the owner/operator within three (3) months and submitted to Council for approval with additional mitigation measures. Council will require any noise mitigation measures identified in the assessment to be implemented within appropriate timeframes.

12.5 The hours of operation for the use of the premises must occur in accordance with the following requirements

   (i) Monday to Friday twenty-four (24) hours,
   (ii) Saturday from 0700 to 1700 hours,

   with loading and/or unloading of delivery vehicles being limited between the hours of 1500 and 1800 on Sundays. No heavy vehicles must enter the development site outside these times to wait for unloading/loading.

12.6 All waste must be stored in the refuse area and recycle bin area indicated on the endorsed plans (refer condition 1.1).

12.7 The waste storage areas must be:

   12.7.1 surrounded by a fence/screen, at least 1.8 metres in height, that obstructs from view the contents of the bin compound by any member of the public from any public place; and
   12.7.2 of a minimum size to accommodate two commercial type bins with a capacity of three cubic metres each for the whole site.

12.8 All waste containers must be:
12.8.1 stored within the bin storage area;
12.8.2 securely covered at all times; and
12.8.3 maintained in a clean condition and in good repair.

12.9 When requested by Council, nuisance monitoring must be undertaken and recorded within three (3) months, to investigate any genuine complaint of nuisance caused by noise, light or dust. An analysis of the monitoring data and a report, including nuisance mitigation measures, must be provided to Council within fourteen (14) days of the completion of the investigation.

12.10 Noise mitigation measures detailed in the ‘Noise Modelling of PFD Food Services Site in Rockhampton’ report dated 20 January 2017 must be installed prior to commencing twenty-four (24) hour operations.

NOTES

NOTE 1. Aboriginal Cultural Heritage Act, 2003
It is advised that under Section 23 of the Aboriginal Cultural Heritage Act 2003, a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal Cultural Heritage (the "cultural heritage duty of care"). Maximum penalties for breaching the duty of care are listed in the Aboriginal Cultural Heritage legislation. The information on Aboriginal Cultural Heritage is available on the Department of Natural Resources, Mines and Water’s website www.nrm.qld.gov.au/cultural_heritage/index.html

NOTE 2. Asbestos Removal
Any demolition and/or removal works involving asbestos materials must be undertaken in accordance with the requirements of the Workplace Health and Safety legislation.

NOTE 3. Dust Control
It is the developer’s responsibility to ensure compliance with Part 2A - Environmental Nuisance of the Environmental Protection Regulation 1998 which prohibits unlawful environmental nuisance caused by dust, ash, fumes, light, odour or smoke beyond the boundaries of the property during all stages of the development including earthworks and construction.

NOTE 4. Sedimentation Control
It is the developer’s responsibility to ensure compliance with Section 32 of the Environmental Protection (Water) Policy 1997 to prevent soil erosion and contamination of the stormwater drainage system and waterways.

NOTE 5. Noise During Construction And Noise In General
It is the developer’s responsibility to ensure compliance with Section 6S General Emission Criteria and Section 6T Noise Emission Criteria of the Environmental Protection Regulation 1998.

NOTE 6. General Safety Of Public During Construction
It is the principal contractor’s responsibility to ensure compliance with Section 31 of the Workplace Health and Safety Act 1995. Section 31(1)(c) states that the principal contractor is obliged on a construction workplace to ensure that work activities at the workplace are safe and without risk of injury or illness to members of the public at or near the workplace.

It is the responsibility of the person in control of the workplace to ensure compliance with Section 30 of the Workplace Health and Safety Act 1995. Section 30(1)(c) states that the person in control of the workplace is obliged to ensure there is appropriate, safe access to and from the workplace for persons other than the person’s workers.
BACKGROUND

On 13 February 2009, Council under delegation, approved a Development Permit for a Material Change of Use for a Warehouse, located at 4-6 Hempenstall Street, Kawana. On 5 March 2014, Council issued an Amended Decision Notice to account for changes made to the approved plans.

On 16 November 2016 the applicant has requested a further amendment to the Decision Notice. This request relates to an ongoing compliance issue (CR441594), relating to the effect that the current operations are having on the amenity of the residential premises immediately adjoining the site. The concerns relate to the noise generated from the current activities occurring on the site, which have been caused by various modifications made to the operations of the business. This includes the use of trucks and refrigeration units associated with the business, which were occurring outside of the approved hours of operation.

As part of their request, the applicant has proposed to increase the hours of operation of the existing use to twenty-four (24) hours, Monday to Friday, as well as varied hours of operations on weekends and public holidays as follows:

- Monday to Friday twenty-four (24) hours;
- Saturday from 0700 to 1700 hours; and
- No operation on Sundays or Public Holidays.

In order to mitigate the impact that the increased hours will have on the adjoining landowners, the applicant has included updated acoustic measures to reduce the impacts upon the amenity of the adjoining residential land. These measures were outlined as part of an amended Acoustic Report which include the erection of a noise barrier on the southern boundary adjacent to the residential properties, the installation of a canopy over the main building to absorb noise created by trucks, and reducing the height of the existing air-conditioning units to a height that is no more than 200 millimetre above natural ground level.

Other changes proposed as part of the permissible change application relate to a revised site layout, and include the following items:

- Reducing on-site car parking spaces from eighteen (18) to fourteen (14), with seven (7) staff parking spaces relocated to the rear of the site, and the number of spaces at the front of the premises being reduced to seven (7);
- Screened bin enclosure relocated to the rear of the site;
- Washdown bay provided within hardstand area; and
- A Hardstand area provided for vehicle parking and manoeuvring at the rear of the site and graded to provide overland flow to the lawful point of discharge.

The applicant has submitted an amended site plan, and stormwater management plan to convey the above changes.

CONCLUSION

The applicant’s request to amend Condition 2.1, relating to the amended Acoustic Assessment, and the proposal to change the hours of operation to twenty-four (24) hours from Monday to Friday is considered reasonable and relevant given the noise mitigation measures outlined in the Acoustic Assessment.
D/116-2008 - REQUEST FOR A PERMISSIBLE CHANGE TO DEVELOPMENT PERMIT FOR A MATERIAL CHANGE OF USE FOR A WAREHOUSE

Locality Plan

Meeting Date: 28 February 2017

Attachment No: 1
D/116-2008 - REQUEST FOR A PERMISSIBLE CHANGE TO DEVELOPMENT PERMIT FOR A MATERIAL CHANGE OF USE FOR A WAREHOUSE

Site Plan

Meeting Date: 28 February 2017

Attachment No: 2
D/116-2008 - REQUEST FOR A PERMISSIBLE CHANGE TO DEVELOPMENT PERMIT FOR A MATERIAL CHANGE OF USE FOR A WAREHOUSE

Acoustic report

Meeting Date: 28 February 2017

Attachment No: 3
NOISE MODELLING OF PFD FOOD SERVICES SITE IN ROCKHAMPTON

1. Overview

PFD Food Services has received noise complaints in regards to their operations at their site located at 4-6 Hempenstall Street in Rockhampton. It is not known if the complaints relate to noise generated during the daytime period or during the night time period. It is also not known from which dwelling(s) the complaints arose from.

As the PFD work site is located immediately adjacent to residential dwellings, it is likely that the complaints were received from one or more of the 7 nearest dwellings.

Due to the short separation distance between the residential dwellings and the PFD site, significant noise mitigation measures are required to minimise noise levels at the nearby dwellings. This assessment aims to provide PFD Food Services with sufficient details of the required noise mitigation measures to allow compliance with the existing noise limits.

Noise measurements were undertaken on site to determine existing emitted noise levels and to determine sound power levels (source noise levels) generated by existing equipment.

A 3D noise model was prepared to determine required noise mitigation measures to allow compliance with both the daytime and night-time noise limits.

2. Criteria

The acoustic report previously prepared by Cardno in 2008 outlined the applicable noise limits for continuous noise sources such as refrigeration and cooling equipment. The noise limits were based on the criteria outlined in the Environmental Protection Regulation 1998, which were defined as background noise levels + 5 dB(A).

However the appropriate noise criteria for continuous noise emissions from plant items such as refrigeration equipment has changed since 2008 with the applicable criteria now being outlined in the Queensland’s Government Environmental Protection Act 1994 current as at 6 December 2016. The EP Act outlines the following.

440V Refrigeration equipment

1) This section applies to a person who is—
   a) an occupier of premises at or for which there is plant or equipment for refrigeration (refrigeration equipment); or
   b) an owner of refrigeration equipment that is on or in a vehicle, other than a vehicle used or to be used on a railway.

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2) The person must not use, or permit the use of, the refrigeration equipment on any day—
   a) before 7a.m., if it makes a noise of more than 3dBA above the background level; or
   b) from 7a.m. to 10p.m., if it makes a noise of more than 5dBA above the background level; or
   c) after 10p.m., if it makes a noise of more than 3dBA above the background level.
3) In this section—vehicle includes a trailer.

The background noise levels measured and outlined in the Cardno report from 2008 are shown below:
   • Day time and evening background noise level was in 2008 measured to 49.0 L_{Aeq,15min} dBA(A)
   • Night time background noise level was in 2008 measured to 38.9 L_{Aeq,15min} dBA(A)

It is highly unlikely that the background noise levels have reduced since 2008, a conservative approach is therefore to apply the background noise levels recorded in 2008 for this assessment. As such the applicable noise limits for assessing noise levels emitted from the site are therefore:
   • Day time and evening noise limit of 54 L_{Aeq} dBA(A)
   • Night time noise limit of 42 L_{Aeq} dBA(A)

The acoustic report from 2006 outlined that noise levels for components impulsive in nature, such as slamming car doors or hammering, are best represented by the L_{Aeq} noise descriptor. The L_{Aeq} noise limits for the premises were in 2008 defined as background noise levels +10 dBA. Below are the noise limits adopted in the 2008 acoustic report.
   • Day time and evening noise limit of 59 L_{Aeq} dBA(A)
   • Night time noise limit of 49 L_{Aeq} dBA(A)

This night time noise limit is also similar to the “health and wellbeing in relation to the ability to sleep” noise limit outlined in the Environmental Protection (Noise) Policy 2006 current as at 1 January 2012 which recommends that the noise level in a bedroom should not exceed 40 L_{Aeq,15min} dBA(A). It is generally accepted that the noise reduction from outside to inside of a dwelling is in the order of 10 dB assuming opened windows for natural ventilation. This corresponds to an external level of 50 L_{Aeq,15min} dBA(A). As the 49 L_{Aeq} dBA(A) is the more stringent of the two limits this has been adopted for this assessment.

Traffic within the site, such as truck movements, were not assessed in 2008. This report will assess the impact upon noise sensitive neighbours from truck movements associated with deliveries to and from the site.

Noise monitoring in 2016 identified an average daytime noise level of 60 L_{Aeq} dBA(A) and a night-time noise level of 53 L_{Aeq} dBA(A) over a two week period. Truck movements associated with PFD Food Services activities should not exceed these levels when measured over a 15 minute period, the following noise limits therefore apply at the neighbouring dwellings due to truck movements:
   • Day time and evening noise limit of 60 L_{Aeq,15min} dBA(A)
   • Night time noise limit of 53 L_{Aeq,15min} dBA(A)

3. Sensitive Receivers

Figure 3-1 shows the location of the noise sensitive receivers, as well as the location of the PFD site industrial buildings and associated noise sources.
4. Noise Impact Assessment

4.1. Modelled Scenarios

The following scenarios were modelled using computer noise modelling software SoundPLAN 7.4:

- Constant noise sources
  - cooling and ventilation equipment operating on diesel or electricity
  - cooling and ventilation equipment operating on electricity only

- Intermittent noise sources
  - forklift operating at the front of the site
  - reversing alarm of trucks on the site
  - emergency exit door and amenity windows

- Truck movements associated with PFD Food Services activities.
  - truck leaving or entering through the southern gate
  - truck leaving or entering through the northern gate

The above mentioned scenarios were modelled both with and without noise mitigation options.

4.2. Modelling Assumptions

The following assumptions have been adopted for this assessment:
Table 4.1: General Noise Modelling Assumptions

<table>
<thead>
<tr>
<th>Model Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Elevation Geometry</td>
<td>Assumed flat</td>
</tr>
<tr>
<td>Site Layout</td>
<td>From aerial images</td>
</tr>
<tr>
<td>Ground Absorption</td>
<td>Assumed 60% soft ground absorption surfaces between the site and receivers (alpha = 0.6)</td>
</tr>
<tr>
<td>Façade Reflection</td>
<td>-2.5 dB(A) – automatically applied to prediction models, as all receivers are attached to buildings.</td>
</tr>
<tr>
<td>Receiver Height</td>
<td>Assumed to be 1.8 and 4.4 metres above ground level.</td>
</tr>
<tr>
<td>Delivery Trucks Refrigeration Unit</td>
<td>5 delivery trucks continuously cooling while running on either Diesel or Electricity</td>
</tr>
<tr>
<td>Truck Engine Noise</td>
<td>Acceleration assumed for 30 seconds with idling assumed for 90 seconds, up to two trucks assumed per 15 minutes.</td>
</tr>
<tr>
<td>Noise Barrier</td>
<td>Noise barriers ranging between 4.6 metres and 2.1 metres high, located along the southern boundary in accordance with drawings provided by PFD Food Services</td>
</tr>
<tr>
<td>Signage</td>
<td>1.1 metre high signage / noise barrier located on top of the administration building.</td>
</tr>
<tr>
<td>Canopy (extending 3.7 metres from the main building)</td>
<td>Extending out from the main building over the delivery trucks 1.4 metres behind the cooling unit. The modelled canopy was acoustically absorptive with approximate dimensions of 3.7 x 19 metres. The modelled canopy was positioned at 5 metres above ground level (equal to the height of the front roller doors).</td>
</tr>
</tbody>
</table>

4.3. Noise Sources

4.3.1. Rear of Site

4.3.1.1. Rear of Site

The rear of the site comprises a large concreted area that currently is used as the employee car parking area. The rear of the site also contains the plant room where the majority of the cooling equipment is situated. The cooling equipment is situated within the plant room with condensers placed on top of the plant room with noise barriers placed around the roof mounted cooling equipment. The cooling equipment is operating at all times but ramps up and down depending on cooling demands.

The rear of the site also contains a roller door for accessing the plant room. It is understood that this roller door is for maintenance purposes and remains closed at all times.

The rear of the site generally only comprises constant noise sources, which are all associated with cooling of the premises.

Figure 4.1 shows the rear of the site, where the roller door and part of one of the air cooled condenser can be seen on top of the plant room.
Noise measurements were undertaken at the rear of the site to determine the noise levels emitted by the air-conditioning and cooling plant placed on the roof of the most eastern building as well as noise escaping through the roller door on the eastern façade.

The noise measurements indicated that the existing plant emits noise levels similar to noise levels of standard cooling and air-conditioning plant. The measured sound pressure levels (SPLs) at the rear of the site varied by a few decibels between the two site visits indicating that the cooling plant operates as required by current cooling demands. This was confirmed by PFD Food Services.

The highest measured sound pressure level (SPLs) recorded 1 metre from the roller door at the rear of the site, was used to determine the sound power level (source noise level (SWL)) of noise emitted from the surface of the roller door.

The sound pressure levels of the roof mounted equipment was not measured up close but further away at various locations at the rear of the site, however these measurements also included traffic noise, noise from neighbouring industries and noise emitted from the roller door, as such these levels could not be used to determine the spectral sound levels of the roof mounted equipment. Manufactures data was therefore used to determine spectral levels of the roof mounted equipment. The following noise data was used for the modelling:

<table>
<thead>
<tr>
<th>Noise Source</th>
<th>SPL, per unit, dB(A)</th>
<th>Number of sources or area of sources</th>
<th>Distance from source, metres</th>
<th>SWL, dB(A), per unit</th>
<th>Data Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Cooled Condenser</td>
<td>62</td>
<td>6</td>
<td>3</td>
<td>80</td>
<td>Measured on Site</td>
</tr>
<tr>
<td>Air Conditioning Condenser</td>
<td>55</td>
<td>2</td>
<td>1</td>
<td>69</td>
<td>Measured on Site</td>
</tr>
<tr>
<td>Rear Roller Door</td>
<td>60</td>
<td>7.2 m²</td>
<td>1</td>
<td>82</td>
<td>Measured on Site</td>
</tr>
</tbody>
</table>

The noise levels predicted by the noise model were compared to the noise levels measured at the rear of the site and were for the majority of the measurement positions within ±1 dB(A).
4.3.2. Southern Façade of Building
An emergency exit without a solid door is located on the southern façade of the main building. Louvered windows are installed adjacent to the door. During site visits it was observed that noise from inside the building occasionally could be heard outside. The noise observed near the openings on the southern façade was generally speech from inside the building.

Three air-conditioning units are attached to the southern façade outside the administration building. Table 4.3 shows the modelled noise levels of the three air-conditioning condenser units.

Table 4.3: Modelled Constant Noise Source Levels – Southern Façade

<table>
<thead>
<tr>
<th>Noise Source</th>
<th>Number of Sources</th>
<th>Measured SPL per unit, dB(A)</th>
<th>Distance from source, metres</th>
<th>Calculated SWL per unit dB(A)</th>
<th>Data Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Conditioning Units for Admin Building</td>
<td>3</td>
<td>53</td>
<td>1</td>
<td>69</td>
<td>Measured on Site in year 2016</td>
</tr>
<tr>
<td>Exhaust fan for the amenities</td>
<td>1</td>
<td>59-64</td>
<td>1</td>
<td>67-72</td>
<td>Data sheets</td>
</tr>
</tbody>
</table>

4.3.3. Front of Site

There are both constant and intermittent noise sources at the front of the site. The constant noise sources are associated with cooling of the refrigeration trucks, whereas intermittent noise sources are associated with general work on the site.

Table 4.4 shows the modelled noise levels for the cooling units on the delivery trucks as measured in 2016.

Table 4.4: Modelled Constant Noise Source Levels – Front of Site

<table>
<thead>
<tr>
<th>Noise Source</th>
<th>Number of Sources</th>
<th>Measured SPL per unit, dB(A)</th>
<th>Distance from source, metres</th>
<th>Calculated SWL per unit dB(A)</th>
<th>Data Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refrigeration Truck (diesel)</td>
<td>5</td>
<td>78</td>
<td>1.5</td>
<td>92</td>
<td>Measured on Site in year 2016</td>
</tr>
<tr>
<td>Refrigeration Truck (electric)</td>
<td>5</td>
<td>74</td>
<td>1</td>
<td>87</td>
<td>Measured on Site in year 2016</td>
</tr>
</tbody>
</table>

Table 4.5 shows the modelled noise levels for intermittent noise sources.

Table 4.5: Modelled Intermitent Noise Source Levels

<table>
<thead>
<tr>
<th>Noise Source</th>
<th>Number of Sources</th>
<th>Measured SPL per unit, dB(A)</th>
<th>Distance from source</th>
<th>Calculated SWL, dB(A)</th>
<th>Data Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fork Lift Reversing Alarm (L_{rev})</td>
<td>1</td>
<td>92</td>
<td>1 m</td>
<td>110°</td>
<td>Measured on Site in 2008</td>
</tr>
<tr>
<td>Truck Reversing Alarm (L_{rev})</td>
<td>1</td>
<td>92</td>
<td>1 m</td>
<td>110°</td>
<td>Assumed to be identical to the alarm on the fork lift</td>
</tr>
<tr>
<td>Broadband reversing Alarm (L_{1/10})</td>
<td>1</td>
<td>85</td>
<td>1 m</td>
<td>98°</td>
<td>Data Sheet</td>
</tr>
<tr>
<td>Engine Noise of Truck Accelerating (L_{acc})</td>
<td>2</td>
<td>80</td>
<td>10 m</td>
<td>108</td>
<td>Department for Environment, Food and Rural Affairs (Defra 2005)</td>
</tr>
<tr>
<td>Engine Noise of Truck Idling (L_{idle})</td>
<td>2</td>
<td>81</td>
<td>1.5 m</td>
<td>95</td>
<td>Measured on Site in year 2016</td>
</tr>
</tbody>
</table>

*Noise data acquired from data sheets

* Includes tonal (+5 dB(A)) and Impulsive (+5 dB(A)) noise penalties due to reversing beeping alarms

* Includes impulsive (+5 dB(A)) noise penalty due to the impulsive nature of the alarms
4.3.4. Continuous Noise Sources
The following assumptions were made for the assessment of continuous noise sources:

- the three administration air conditioning units operate continuously;
- all plant at the back of the building (2 air cooled condenser units and 2 small A/C units above the plant room, currently located behind sound barriers) operates continuously;
- the roller door at the back of the building is closed at all times;
- 5 trucks parked at the main building are cooling continuously;
- the 5 trucks are powered by either diesel or electricity.

It should be noted that the refrigeration trucks would only operate on diesel during a lengthy power outage and are for emergency back-up purposes only. The diesel operation is a backup feature that is installed on the trucks to avoid the food inside the trucks getting spoilt in case of a mains power outage.

4.3.5. Intermittent Noise Sources
The intermittent noise sources were assessed individually.

4.3.6. Truck Movements
Truck movements at the site occur mainly in the morning when the delivery of food products start and in the afternoon when the delivery trucks return from their deliveries. For the assessment it has been assumed that 2 trucks leaves the site within a 15 minute period.

4.4. Noise Modelling Results

4.4.1. Predicted Noise Levels for Continuous Sources with No Mitigation
Figure 4-2 and Figure 4-3 show the location of the 5 trucks when modelled at the main building. The figure also includes the predicted noise levels at 1.8 metres above natural ground level (NGL) for constant noise sources without any noise mitigation where the trucks are powered by electricity or diesel respectively.

Figure 4-2: Location of trucks when modelled at the main building, including predicted noise levels at ground level without noise mitigation with the truck refrigeration units operating on electricity
Figure 4-3: Location of trucks when modelled at the main building, including predicted noise levels at ground level without noise mitigation with the truck refrigeration units operating on diesel.

Table 4-6 shows predicted noise levels at the noise sensitive receivers for constant noise sources, with the cooling trucks running on either diesel or electricity. Cells shown in red in the table are locations where the applicable noise limit is exceeded.

<table>
<thead>
<tr>
<th>Address</th>
<th>Floor</th>
<th>Diesel Night, Limit 42 dB(A)</th>
<th>Diesel Night, Limit 42 dB(A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>219 Farm St</td>
<td>Ground</td>
<td>48</td>
<td>44</td>
</tr>
<tr>
<td>219 Farm St</td>
<td>First</td>
<td>51</td>
<td>47</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>Ground</td>
<td>47</td>
<td>44</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>First</td>
<td>49</td>
<td>45</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>Ground</td>
<td>41</td>
<td>39</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>First</td>
<td>42</td>
<td>39</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>Ground</td>
<td>39</td>
<td>36</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>First</td>
<td>39</td>
<td>37</td>
</tr>
<tr>
<td>228 Farm St</td>
<td>Ground</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>228 Farm St</td>
<td>First</td>
<td>44</td>
<td>43</td>
</tr>
<tr>
<td>231 Farm St</td>
<td>Ground</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>Ground</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>First</td>
<td>43</td>
<td>43</td>
</tr>
</tbody>
</table>

Emergency operation only.

Table 4-6 shows that the right time noise limit is exceeded irrespective of whether the refrigerating units on the cooling trucks are operating on electricity or diesel. Noise mitigation is therefore required.
4.4.1.1. Rear of Site
Noise levels predicted by the noise model indicated that noise levels emitted from the rear of the site currently are in compliance with the daytime noise limits applicable to the site.

However the predicted noise levels indicate that the nighttime noise limit may be exceeded by 2 dB(A) during the night time, depending on the cooling demand at night. However, if the 6 fans on the 2 air cooled condenser units are operated at 80% or less of their full speed at night the predicted noise level at the rear of the site is reduced by 2 to 3 dB(A).

We understand that the fans and condensers run at less than 80% at night due to the reduced load and therefore, noise emissions from normal night-time operation of these units and fans is expected to comply with the criteria.

4.4.1.2. Southern façade
It was determined that the three wall hung air-conditioning units for cooling of the administration building exceeded the nighttime noise limit when running at full speed. Noise mitigation options were therefore investigated.

4.4.1.3. Front of Site
It was determined that the noise emitted from the refrigeration trucks exceeded the night time noise limit. Noise mitigation options were therefore investigated.

4.4.2. Predicted Noise Levels for Continuous Sources with Mitigation
Several iterations of noise modelling were conducted to design a suitable and constructible solution to mitigate noise emissions from the PFD Food Services site to the neighbouring dwellings. The noise mitigation investigated, consisted of the following items:

- A 2.1 to 4.6 metre high noise barrier located between the site and the properties south west of the site.
- A 1.1 metre high signage or noise barrier on top of the administration building.
- A canopy (3.7m depth from the front façade of the building) with absorptive material on the ground facing side located 1 metre above the truck refrigeration units.
- Relocation of the three wall hung air-conditioning units currently situated on the southern façade of the administration building, to the ground instead of being wall hung.
- The 6 fans on the air cooled condensers at the rear of the site were reduced to 80% fan speed at night to reduce noise levels at the rear of the site.

The acoustic report pl_F005_A11649_08AH.pdf outlines the effect of each investigated mitigation option.

Figure 4-4 shows the location of the modelled canopy, the modelled signage on top of the administration building, the A/C units and the noise barrier between the site and the nearest neighbouring dwellings. It should be noted that the signage on top of the administration building and the noise barrier must be constructed from a material of a panel mass of at least 12.5 kg/m² and have no gaps.
Table 4-7 shows predicted noise levels at the noise sensitive receivers for constant noise sources with the implementation of the noise mitigations outlined above.

Table 4-7: Constant Noise Sources with a 2.1m to 4.6m Noise Barrier, a Canopy (3.7m deep) located 1 metre above the Truck Refrigeration Units and a 1.1 metre high noise barrier located on top of the administration building.

<table>
<thead>
<tr>
<th>Address</th>
<th>Floor</th>
<th>Diesel</th>
<th>Electricity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Night, Limit 42 dB(A)</td>
<td>Night, Limit 42 dB(A)</td>
</tr>
<tr>
<td>219 Farm St</td>
<td>Ground</td>
<td>41</td>
<td>37</td>
</tr>
<tr>
<td>219 Farm St</td>
<td>First</td>
<td>44</td>
<td>40</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>Ground</td>
<td>42</td>
<td>37</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>First</td>
<td>43</td>
<td>39</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>Ground</td>
<td>37</td>
<td>34</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>First</td>
<td>38</td>
<td>36</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>Ground</td>
<td>35</td>
<td>32</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>First</td>
<td>36</td>
<td>34</td>
</tr>
<tr>
<td>229 Farm St</td>
<td>Ground</td>
<td>40</td>
<td>39</td>
</tr>
<tr>
<td>229 Farm St</td>
<td>First</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>231 Farm St</td>
<td>Ground</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>Ground</td>
<td>40</td>
<td>39</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>First</td>
<td>41</td>
<td>40</td>
</tr>
</tbody>
</table>

*Emergency operation only*

The results shown in Table 4-7 indicate that the noise mitigation options outlined above and shown in Figure 4-4 provide sufficient noise reduction to achieve compliance with the night-time noise limits during normal operations at the site.
In an emergency situation where cooling of the trucks will use diesel engines it is noted that a small exceedance of the night time noise limit may occur at the first floor level of 219 and 223 Farm Street. This is only likely to occur during an emergency power outage, therefore only occasionally.

Figure 4-5 shows the predicted noise levels for constant noise sources at ground floor level with the implementation of the noise mitigations outlined above.

Figure 4-5: Predicted noise levels at ground level including noise mitigation with the truck refrigeration units operating on electricity

Figure 4-6 shows the predicted noise levels for constant noise sources at ground floor level during an emergency situation where the refrigeration units on the delivery trucks are operating on diesel. The predicted noise levels includes the implementation of the noise mitigations outlined above.
4.4.3. Predicted Noise Levels for Intermittent Sources with No Mitigation

The following assumptions and scenarios were generated for the assessment of intermittent noise sources:

1. one forklift with tonal reversing alarm (+10 dB(A) penalty) operating near the administration building (daytime operation only)
2. tonal reversing beeping alarm (+10 dB(A) penalty) on a delivery truck with alarm facing the neighbours
3. tonal reversing beeping alarm (+10 dB(A) penalty) on a delivery truck with alarm facing away from the neighbours
4. noise escaping through building openings on the southern façade (day or night)

Figure 4-7 shows the predicted maximum noise levels from all of the above scenarios. Noise emitted from the tonal reversing beeping alarms are the noise sources resulting in the largest noise exceedance at 219 and 223 Farm Street.
It should be noted that a 10 dB(A) noise penalty was added to the tonal reversing beeping alarms due to the tonal and impulsive nature of the alarm, so the actual noise level experienced at the receivers by this source, will be 10 dB(A) less than that predicted.

Table 4-8 shows predicted noise levels at the noise sensitive receivers for the intermittent noise sources, without noise mitigation. Cells shown in red in the table are locations where the applicable noise limits of either 59 or 49 dB(A) are exceeded.

<table>
<thead>
<tr>
<th>Address</th>
<th>Floor</th>
<th>Scenario 1</th>
<th>Scenario 2</th>
<th>Scenario 3</th>
<th>Scenario 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>219 Farm St</td>
<td>Ground</td>
<td>59</td>
<td>58</td>
<td>50</td>
<td>52</td>
</tr>
<tr>
<td>219 Farm St</td>
<td>First</td>
<td>69</td>
<td>69</td>
<td>57</td>
<td>55</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>Ground</td>
<td>67</td>
<td>66</td>
<td>56</td>
<td>58</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>First</td>
<td>67</td>
<td>66</td>
<td>56</td>
<td>57</td>
</tr>
<tr>
<td>226 Farm St</td>
<td>Ground</td>
<td>63</td>
<td>56</td>
<td>48</td>
<td>57</td>
</tr>
<tr>
<td>226 Farm St</td>
<td>First</td>
<td>56</td>
<td>54</td>
<td>48</td>
<td>57</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>Ground</td>
<td>47</td>
<td>46</td>
<td>42</td>
<td>50</td>
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<tr>
<td>227 Farm St</td>
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<td>49</td>
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<td>43</td>
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<tr>
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<td>Ground</td>
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<tr>
<td>231 Farm St</td>
<td>Ground</td>
<td>41</td>
<td>39</td>
<td>42</td>
<td>47</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>Ground</td>
<td>37</td>
<td>36</td>
<td>30</td>
<td>46</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>First</td>
<td>38</td>
<td>37</td>
<td>40</td>
<td>45</td>
</tr>
</tbody>
</table>

Table 4-8 shows that the applicable intermittent noise limits are exceeded. Noise mitigation is therefore required.
4.4.3.1. Tonal Reversing Alarms
An 5 dBA noise penalty can be subtracted by changing the tonal reversing alarm to broadband reversing alarms (quackers), as this would remove the 6 dBA penalty for the tonality component. Furthermore it was determined that the noise level measured 1m from the reversing alarm should not exceed 85 dBA.

Trucks should also enter the site such that the truck or the trailer would provide screening towards the neighbouring dwellings when the truck is reversed.

It should be noted that the forklift is not expected to be used during the night-time period. Nonetheless it is still recommended that the reversing beeping alarm be changed to a broadband reversing alarm (quacker).

4.4.3.2. Noise Escaping Building Openings on the Southern Façade
It was determined that replacement of the existing access door on the southern façade of the building, with a minimum of a hollow core plywood door with rubber gasket around the sides and top of the jamb at the emergency exit would provide sufficient noise reduction, provided the door remains closed during the night time. A heavier (core filled, metal or fire) door with rubber gasket around sides and top of jamb would provide improved noise reduction and provide a more hard wearing solution.

Modelling also indicated that the louvred amenity windows must be replaced by a material providing a minimum of 12 dBA noise reduction. PFD Food Services indicated that 8mm sandwiched polycarbonate would be the preferred option. However, modelling of this material resulted in a predicted noise reduction of 8 dBA, which would not achieve compliance with the intermittent noise source criteria.

It is recommended that a solid 4mm thick polycarbonate sheet be used as this is predicted to provide up to 20 dBA noise reduction. 4mm thick glass could also be used as an alternative. It should be noted that the panes and the window frame should be fully acoustically sealed to prevent noise leakage and therefore reduction of the expected performance significantly.

PFD Food Services indicated that mechanical ventilation would be required for the amenities if the louvres were to be replaced with non-operable windows. The fan size and required air flow volume has not yet been determined, however PFD Food Services indicated that one 6 pole fan was likely to be used.

Noise modelling was undertaken using a typical fan with a sound power level of 72 dBA. The noise modelling indicated that a clear line of sight between the fan and a receiver would result in exceedance of the constant noise source noise limit. As such it is recommended that the fan be installed within the ceiling cavity with the discharge facing away from the sensitive receivers. The noise modelling indicated that the maximum acceptable sound pressure level 1 metre from the fan discharge can be 58 dBA to achieve compliance with the applicable noise limit.

4.4.4. Predicted Noise Levels for Intermittent Sources with Mitigation
The following scenarios were modelled for the assessment of intermittent noise sources with included mitigation:

1. a forklift with quacker alarm (+5 dBA) penalty and 85 dBA (@ 1 m) operating near the administration building (daytime operation only)
2. quacker alarm (+5 dBA) penalty and 85 dBA (@ 1 m) on a delivery truck with alarm facing the neighbours
3. quacker alarm (+5 dBA) penalty and 85 dBA (@ 1 m) on a delivery truck with alarm facing away from the neighbours
4. noise escaping through mitigated building openings on the southern façade (day or night)

The 2.1 to 4.6m high noise barrier, the noise barrier on top of the administration building as well as the canopy was also included in the modelling for the assessment of intermittent noise sources with included mitigation. The recommendations outlined in section 4.4.3.2 for noise escaping the building were included in the noise modelling for scenario 4.

Table 4-9 shows the predicted noise levels for intermittent noise sources with the inclusion of the above mentioned noise mitigations.
Table 4-8: Predicted Noise Levels for Intermittent Noise Sources with Noise Mitigation

<table>
<thead>
<tr>
<th>Address</th>
<th>Floor</th>
<th>Scenario 1 Day Limit 59 dBA</th>
<th>Scenario 2 Night-time Maximum Noise Limit, 49 dBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>219 Farm St</td>
<td>Ground</td>
<td>43</td>
<td>37</td>
</tr>
<tr>
<td>219 Farm St</td>
<td>First</td>
<td>48</td>
<td>36</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>Ground</td>
<td>42</td>
<td>33</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>First</td>
<td>49</td>
<td>36</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>Ground</td>
<td>37</td>
<td>35</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>First</td>
<td>41</td>
<td>35</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>Ground</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>First</td>
<td>38</td>
<td>25</td>
</tr>
<tr>
<td>229 Farm St</td>
<td>Ground</td>
<td>31</td>
<td>20</td>
</tr>
<tr>
<td>229 Farm St</td>
<td>First</td>
<td>32</td>
<td>23</td>
</tr>
<tr>
<td>231 Farm St</td>
<td>Ground</td>
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<td>24</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>Ground</td>
<td>25</td>
<td>27</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>First</td>
<td>28</td>
<td>28</td>
</tr>
</tbody>
</table>

Table 4-8 shows that the predicted noise level of the forklift operating at the front of the site shows compliance with the intermittent daytime noise limit as well as the night-time noise limit provided the above mentioned noise mitigation options are put in place. The table also show that noise emitted from broadband reversing alarms shows compliance with the intermittent night-time noise limit provided the above mentioned noise mitigation options are put in place. The table also shows that reversing alarms facing away from the neighbours further reduces the noise impact upon the neighbouring receivers.

The table also shows that compliance can be achieved in regards to noise escaping the building if the recommendations outlined in Section 4.4.3.2 are implemented.

Figure 4-8 shows the predicted maximum noise levels of all the modelled scenarios, with the recommended noise mitigation measures in place.
4.4.5. Predicted Noise Levels for Truck Movements

Truck movements within the site were modelled to identify predicted noise levels at the neighbouring dwellings. It was assumed that two trucks would leave the site in a period of 15 minutes with each truck idling for 90 seconds and accelerating for 30 seconds.

Figure 4-9 shows the predicted noise levels of 2 trucks leaving the site through the southern gate. The trucks reverse out from the dock with the back of the truck facing north before a forward gear is selected and the truck start driving south.

![Diagram showing predicted noise levels for truck movements](image_url)

Figure 4-9: Predicted Noise Levels for Trucks Leaving the Site through the Southern Gate without Mitigation Measures

Figure 4-10 shows the predicted noise levels of 2 trucks leaving the site through the southern gate with the inclusion of the noise barrier, the canopy and the signage on top of the admin building as outlined in Section 4.4.2.
Figure 4-10: Predicted Noise Levels for Trucks Leaving the Site through the Southern Gate with Mitigation Measures in Place

Table 4-10 shows the predicted noise levels for trucks leaving the site through either the southern or the northern gate with and without the inclusion of the noise barrier, the canopy and the signage located on top of the administration building.

Table 4-10: Predicted Noise Levels for Trucks Leaving the Site with and without Noise Mitigation Measures

<table>
<thead>
<tr>
<th>Address</th>
<th>Floor</th>
<th>No Mitigation</th>
<th>With Mitigation</th>
<th>No Mitigation</th>
<th>With Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>219 Farm St</td>
<td>Ground</td>
<td>49</td>
<td>43</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td>219 Farm St</td>
<td>First</td>
<td>57</td>
<td>48</td>
<td>56</td>
<td>46</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>Ground</td>
<td>52</td>
<td>42</td>
<td>52</td>
<td>44</td>
</tr>
<tr>
<td>223 Farm St</td>
<td>First</td>
<td>52</td>
<td>46</td>
<td>52</td>
<td>49</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>Ground</td>
<td>48</td>
<td>40</td>
<td>39</td>
<td>35</td>
</tr>
<tr>
<td>225 Farm St</td>
<td>First</td>
<td>48</td>
<td>43</td>
<td>41</td>
<td>39</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>Ground</td>
<td>43</td>
<td>37</td>
<td>34</td>
<td>32</td>
</tr>
<tr>
<td>227 Farm St</td>
<td>First</td>
<td>44</td>
<td>40</td>
<td>36</td>
<td>35</td>
</tr>
<tr>
<td>229 Farm St</td>
<td>Ground</td>
<td>38</td>
<td>35</td>
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</tr>
<tr>
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<td>38</td>
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<td>30</td>
</tr>
<tr>
<td>231 Farm St</td>
<td>Ground</td>
<td>35</td>
<td>32</td>
<td>27</td>
<td>27</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>Ground</td>
<td>30</td>
<td>30</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>233 Farm St</td>
<td>First</td>
<td>32</td>
<td>32</td>
<td>26</td>
<td>26</td>
</tr>
</tbody>
</table>

Table 4-10 indicates that the noise mitigation measures outlined in Section 4.4.2 and shown in Figure 4-4 provide sufficient noise reduction to achieve compliance with the night-time noise limit for trucks leaving the site.
5. Conclusion

The noise modelling indicated that compliance with the applicable noise limits for continuous noise sources during normal operations can be achieved at the premises at 4-6 Hempenstall Street provided the following noise mitigation measures are incorporated:

- Erection of a noise barrier between the site and the noise sensitive receivers on Farm Street. The noise barrier is required to have a minimum height of 4.6 metres for most of the barrier length with a step down in height to 2.1 metres for approximately one third of the total barrier length. The location of the required barrier is indicated on Figure 4-5.
- Erection of a 1.1 metre high noise barrier on top of the administration building as shown in Figure 4-4 and Figure 4-8.
- Installation of a canopy on the main building as shown in Figure 4-4 and Figure 4-8. The canopy must include acoustic absorptive materials on the underside of the canopy, such as mineral fibre faced with a perforated material or similar. Exposed mineral fibre finish is not recommended as this material is not generally weather proof but any facing material must be perforated with at least 20% open area.
- Move the wall hung air conditioning units down to a height where the bottom of the AC unit is no more than 200mm above the natural ground level.
- Ensure that the fan speed on the 6 fans associated with the two rear air cooling condenser units does not exceed 80% of maximum speed during the night-time period.
- Replace the existing metal wire emergency exit door with a hollow or solid core plywood door with rubber gasket seals around the frame and top of jamb at the emergency exit. A heavier door such as a fire or solid metal door is also acceptable.
- Replace the existing louvered windows in the amenities with minimum 4mm solid polycarbonate sheeting or minimum 4mm glass non operable acoustically sealed window.
- Install a fan within the building or within the ceiling cavity with the fan discharge facing away from the noise sensitive receivers, to provide ventilation to the amenities in lieu of the louvered window.
- Tonal alarms, such as tonal reversing beeping alarms cannot be used on site. All alarms must be replaced by broadband alarms (quackers) that does not exceed 85 dB(A) at 1 metre during the night time period.
- Management of site activities so that the generation of impulsive noises during the night-time period is minimised will be required. The following guidelines must be adhered to:
  - Closing of car doors, truck gates, refrigeration doors and other parts/doors must be undertaken in a manner that avoids generation of loud noises.
  - Shouting, loud music/radio, stacking of pallets and other operations that generate loud impulsive noises should be avoided.
- Use the northern gate only during the night-time period.
- Offer double glazing to the northern and western facades of 219 Farm Street due to the site truck movements on Hempenstall Street in the night-time period.
- Ensure that trucks do not park on Hempenstall Street outside 219 Farm St while waiting for an available delivery dock.

With the above mitigation measures in place modelling indicates that compliance with the applicable noise limits for continuous noise is achievable for both daytime and night-time for normal operations. However the noise modelling indicates that noise exceedances of 1 to 2 dB(A) may occur during a lengthy power outage at two of the nearest noise sensitive receivers.

Noise measurements and modelling of the cooling plant on the eastern side of the premises indicate that compliance is achieved with the daytime noise limit when the back roller door is closed. However the noise modelling indicated that the 6 fans on the air cooling condenser units could only ramp up to 80% of full speed during the night-time period to achieve compliance. PFD Foods advised that the night-time fan speed did not currently exceed 80% at night due to reduced load.

It is recommended that noise monitoring with audio recording be conducted for one week upon completion of the construction of the noise mitigation measures to ensure that emitted noise levels are below the applicable noise limits.
We trust that the above is constructive. Please don’t hesitate to contact the undersigned if you require any clarification of the above.

Yours sincerely

Asbjorn Hansen
Acoustic Engineer
for Cardno
9 NOTICES OF MOTION

Nil
10 URGENT BUSINESS/QUESTIONS

Urgent Business is a provision in the Agenda for members to raise questions or matters of a genuinely urgent or emergent nature, that are not a change to Council Policy and can not be delayed until the next scheduled Council or Committee Meeting.
11 CLOSURE OF MEETING