INDUSTRIAL AND RESIDENTIAL LANDS INTERFACE

10 December 2014

For the use of

VILLAGE BUILDING COMPANY

For the purpose of a preliminary assesment of a proposed

FORREST MORRISON INDUSTRIAL AND RESIDENTIAL LANDS INTERFACE

Knight Frank Town Planning Level 12, 221 London Circuit, Canberra ACT 2601

PO Box 248 Civic Square ACT 2608

- O +61 2 6230 7855
- F +61 2 6230 7844

Planning.act@au.knightfrank.com

www.KnightFrank.com.au

CONTENTS

1	Popov Avenue N
2	Woodpark Road
3	Factory Street Gr
4	Wells Station Dri
5	Canberra Avenue
6	Hume

Newington I Smithfield ranville ive Mitchell e Fyshwick





Industrial and Residential interface

On behalf of the Village Building Company, Knight Frank Town Planning has undertaken a review of industrial and residential interfaces to help inform the approach to the rezoning of the Forrest, Morrison lands adjoining the Hume industrial estate in the ACT. This review has considered comparable examples from the ACT and Sydney and the implications for the current rezoning. This review has also addressed the reference by Queanbeyan City Council planners to adherence with the Victorian standard.

Background

It is noted that there is a strip of land 250 metres wide generally zoned for recreation purposes along and adjacent to the border with the ACT as part of the South Tralee LEP. It is generally referred to as a 'buffer' between the residential and industrial lands. The 'buffer' coincides with the land largely zoned RE 2 Private Recreation under the Queanbeyan Local Environmental Plan (South Tralee) 2012 (South Tralee LEP) As well as not being zoned for residential purposes, we note also that Queanbeyan City Council is also seeking to require the planting of a vegetation screen 150 metres wide within this 'buffer' as part of the South Jerrabomberra draft Development Control Plan (draft DCP). It is understood that Council has been seeking to extend the buffer for the same width along the Forrest, Morrison and Walsh lands boundary to the ACT.

Summary conclusions

- 1. A review of comparable industrial and residential settings has concluded that there is no standard **approach** to the treatment of interfaces
- 2. No other existing compared industrial and residential settings has an interface involving a buffer distance at all comparable with the proposed 250 metres
- 3. Accordingly, there appears to be no adopted practice or approach that suggests 250 metres
- 4. There is no specific statutory setback in NSW in terms of an industrial/residential interface
- 5. The compared industrial and residential settings either have no specific mitigation measures in place or do so in a distance considerably less than 250 metres.
- 6. There is **no basis** for concluding that a distance separation of 250 metres is the only satisfactory solution to mitigating noise/vibration and visual impacts.

Methodology

For the purposes of an appropriate comparison, a review was firstly undertaken of the existing uses and what the current zoning of Hume provides for. Similar industrial areas were identified in the two jurisdictions of the ACT and NSW. The NSW examples were chosen to reflect different periods recognising potentially different planning approaches and standards.

A standard reporting approach has been adopted comprising a template that:

- 1. Confirms the current zoning of the industrial and residential lands
- 2. The general range of uses

3. The existing interface and how treated.

Summary of findings

For ease of comparison, the following summarises the key findings.

Location	Zoning	Interface key attributes
Newington (western Sydney – adjacent to Homebush/Olympic Park) New integrated housing estate	General Industrial and Medium Density Residential	<u>12 metre</u> setback required for dwellings adjacent to industrial estate Rear yards to industrial estate
built circa 2000 – 2004.		now comprise of established/mature screen.
Woodpark Road, Smithfield (west of Parramatta) Residential established circa 1980's.	General Industrial and Low Density Residential	Specified buffer in local planning controls. Buffer a width of <u>60 metres</u> . Dense tree planting along part of the common boundary.
Factory Street, Granville. (south of Parramatta) Residential established circa 1950's	General Industrial and Low Density Residential	No specified buffer distances. Industry and residential separated by road. Road reserve width, say <u>30</u> metres.
Mitchell (northern part) ACT Residential established circa 2004	Majority General Industrial (IZ1) with limited area of Industrial Mixed Use (IZ2). Residential zoned RZ3 (Urban Residential) and (CZ5) Mixed Use	No specific buffer measures. Separation provided by road. Distance between industrial block boundaries and residential averages <u>100</u> metres.
Fyshwick (ACT) Residential established circa 1970's	Industrial Mixed use (IZ2). Residential zoned RZ1	No specific buffer measures. Separation provided by road (Canberra Avenue). Distance between industrial block boundaries and residential averages <u>100</u> metres
Hume (ACT) Residential in NSW zoned by South Tralee LEP.	Majority General Industrial IZ1. Residential in South Tralee zoned General Residential	Buffer distance of <u>250</u> metres. Dense planting screen of 150 metres proposed by draft DCP. Additional acoustic and vibration standards to be met also included in the South





	Tralee LEP.

Victorian Standard

Queanbeyan City Council planners have advised that there is a Victorian standard on the width of buffers. This is only partly correct. A review of the Victorian EPA guideline – Recommended separation distances for industrial residual air emissions – March 2013 has been undertaken. In reviewing that guideline, we note the following:

- 1. The guidelines are specific to air emissions and not noise/vibration or visual
- 2. The guidelines do not apply nor are we aware of any instances where they have been used in NSW
- 3. Of all the uses listed we are only aware of an asphalt plant occurring in Hume

It is noted that a separation for noise does not exist under the Victorian EPA legislation (Ref: City of Warrnambool Review of Land Uses within Industrial Buffers - draft July 2014)Hume - ACT

Under the Territory Plan, the majority of Hume is zoned IZ1 – General Industrial. We note that relevantly, the zone objectives in part are to:

Ensure that industrial development achieves <u>high environmental standards</u> of cleaner production, waste disposal, noise and air quality (our underlining)

We note that the majority of the existing uses can be characterised as warehousing/freight logistics/storage and light manufacturing. The only exception to this general typology is an existing asphalt plant.

We note that there is a small area of IZ2 – Industrial Mixed Use zone in the central part of Hume. Whilst not large in size, we note that the permitted uses include a range of sensitive uses including residential, community and guest houses. It is noted that there is also land immediately adjacent to the south of the IZ1 – General Industrial land in Hume which is zoned CZ6 – Leisure and Accommodation. This zoning is well within 250 metres of the industrial zoning. The objectives in part of this zone to:

Provide for the development of entertainment, accommodation and leisure facilities for residents and visitors to the ACT and surrounding region

Typically this zone in the ACT is used for hotels, motels, caravan parks and the like. All generally able to be characterised as 'sensitive' uses.

Implications for South Jerrabomberra planning

The absence of a standard approach or specific State (NSW) guideline on how the interface between industrial and residential areas should be treated, confirms that there is no policy basis for the proposed 250 metres in terms of noise/visual or vibration impacts. The referred to Victorian example is also not relevant to any of these potential impacts. The review of existing interfaces in a range of settings and different planning

jurisdictions provides no basis or precedent for the proposed 250 metres.

Accordingly, and in the absence of either an adopted approach or relevant precedents elsewhere, it is our conclusion that the 250 metre buffer is neither reasonable nor justified.

It is not our conclusion however that there should be no interface treatment but rather that there are alternate mitigation/attenuation measures able to be employed to address the issue of residential amenity. In considering what those measures might be, reference has also been made to the Guidelines (Interim) -Development near rail corridors and busy roads issued by the NSW Department of Planning (2008) (DoP *Guidelines*). Whilst not specific to industrial noise sources, they are a useful guide to general noise/vibration attenuation treatments and are also specific to the issue of any noise/vibration as a result of the rail line were it to be re-opened.

Noise attenuation

Potential alternate noise attenuation treatments include:

- The design of any such barrier would be part of an integrated landscape treatment. The sketch attached sets out an indicative cross section of an integrated mounding and landscape screen treatment. The DoP Guidelines note in part the following considerations when designing a noise barrier:
 - The closer the noise barrier is to the noise source, the more effective the barrier
 - The lower the height of the development, the more effective the barrier
 - The taller the barrier, the greater the noise reduction
 - of the development.
- (in that instance roads, however the principle remains the same for other sources). It notes that a 'barrier block' is a building which itself forms a noise barrier.

1. A solid barrier close to the source, in this instance, say adjacent to the rail corridor on the NSW side of the border. There are many examples of solid barriers including mounds; panels or a combination of.

• The wider the barrier, the more effective – barriers should ideally extend far beyond the edges

2. The design and siting of buildings as part of a solid barrier solution subject to the careful placement of windows and room types. By way of example, we note that the DoP Guidelines suggest that on larger developments, a 'barrier block' can be used to protect the residential development from noise sources





Indicative cross section of visual and acoustic buffer



ACT R: +61 2 8200 7855 E: pienning act@au.knightfrank.com NSW P: +61 2 9008 1100 E: pienning new@au.knightfrank.com The *DoP Guidelines* also set out standard (or deemed –to-satisfy) constructions for each category of noise control treatment for the sleeping areas and other habitable areas. Again whilst these controls are in the context of road noise, they are useful to demonstrating that specific noise attenuation construction measures may well be an option for mitigating the impact of industrial noise.

3. As a general rule, it is understood that vegetation does not in itself provide effective noise attenuation.

Visual screen

- Tree planting along the full width of the western boundary. Landscape advice confirms that a dense planting screen at maturity allowing for a diversity of endemic species of different heights could be achieved in a width of 20 – 30 metres (see sketch attached of an indicative cross section).
- 2. The design and siting of 'block buildings' can also screen development from general public vantage points
- 3. The use of a solid barrier for noise attenuation can also form part of an integrated landscape treatment and screening.
- 4. A vegetation strip of 150 metres in width is not necessary or justified in order to achieve a dense screen.

Vibration

The Guidelines (Interim) – Development near rail corridors and busy roads issued by the NSW Department of *Planning (2008)* expressly address the issue of vibration and treatments to mitigate. **Planning context for buffer (interface)**

In considering the best and most effective use of land along the interface between NSW lands and Hume, it is necessary and important to understand the wider planning context in which that decision needs to be made.

Whilst South Tralee and the Forrest/Morrison lands are greenfield releases, they are located in a <u>highly</u> <u>constrained corridor with a very limited extent of urban capable land</u> when considering the ANEF limits to the east. The balance of land remaining for urban development can be characterized as an 'infill wedge'. This is not an urban release corridor with other development options in terms of alternative locations for housing . This was an urban release corridor however that had other development options when the decision was made to adopt the 250 metre 'buffer' as part of the South Tralee LEP. At that time, the Robin lands were part of the South Jerrabomberra urban release corridor and as such provided other options for housing despite a buffer of 250 metres. That is no longer the case with approximately 2/3rds of the prior future urban lands no longer available due to the ANEF. What land is left is therefore critically important.

It is within this context that the setting aside of a 250 metre wide buffer needs to be <u>critically reviewed and</u> <u>the merits of questioned</u>. That review outlined in this advice, concludes that the object and purpose of an interface between residential development and industry, can be achieved in considerably less width. This is an acceptable planning and environmental outcome. This is a <u>proper and valid planning policy position</u> for Queanbeyan City to adopt in finding the right balance between environmental, social and economic issues.

Summary and conclusion

In summary and conclusion, it is possible and practical to apply alternate solutions to noise/vibration and visual impacts that do not involve or require a buffer distance of 250 metres. They are alternate solutions that properly designed, can provide for an industrial/residential interface that can address the issue of amenity for sensitive uses.

It is recommended that a master planned approach to the interface be considered that addresses, acoustic treatments; landscaping; recreational uses; screening and; the placement of buildings in an integrated way. This can be done in a manner that can address and satisfy the agreed standards set by Council. In doing so, satisfy the object of a satisfactory interface between industrial and residential development without the need for a 250 metre wide 'buffer'



1. POPOV AVENUE, NEWINGTON









ACT R: +61 2 6030 7855 E: planning act@au.knightfrank.com NSW R: +61 2 9008 1100 E: planning new@au.kniphtfrank.com



Newington / Auburn Council (Sydney)

LAND USE ZONING

IN1 General Industrial

Permitted Uses: Depots; Freight transport facilities; General industries; Industrial training facilities; Kiosks; Light industries; Liquid fuel depots; Neighbourhood shops; Roads; Take away food and drink premises; Warehouse or distribution centres;

R3 Medium Density Residential. Newington is an integrated and multiple award winning urban renewal precinct established 2004.

Permitted Uses: Attached dwellings; Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Child care centres; Community facilities; Dual occupancies; Dwelling houses; Group homes; Multi dwelling housing; Neighbourhood shops; Places of public worship; Respite day care centres; Roads; Semi-detached dwellings; Seniors housing;

DESCRIPTION OF LAND USES / CHARACTER OF AREA

IN1- General Industrial- Large scale warehouse/ distribution centres.

R3- Medium Density Residential- Terraces/townhouses with minimal landscaped buffer at rear of dwellings.

REVIEW & COMMENT ON INTERFACE / BUFFER CONTROLS

The interface between the residential development and industry comprises of the rear yards of dwellings with established tree plantings. The setback distance of the dwellings is required to be a minimum of 12.0m. The local development controls provide for a minimal setback as set out below. There are no other specific buffer requirements in terms of noise attenuation or screening.

Auburn DCP 2010

- Industrial Areas part 3.3: Where a site adjoins a residential zone, side and rear setbacks of **3m** shall be required. ٠
- Newington Residential part 3.2: Rear setback shall be 3m minimum or **12m** where site is adjacent to western industrial development area of the precinct.



2. WOODPARK ROAD, SMITHFIELD, HOLROYD







020 7855 g adīģau krightfank.com





Woodpark Road, Smithfield / Holroyd Council (Sydney)

LAND USE ZONING

IN1 General Industrial

Permitted Uses: Depots; Freight transport facilities; General industries; Industrial training facilities; Kiosks; Light industries; Liquid fuel depots; Neighbourhood shops; Roads; Take away food and drink premises; Warehouse or distribution centres;

R2 Low Density Residential

Permitted Uses: Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Child care centres; Community facilities; Dual occupancies; Dwelling houses; Environmental protection works; Exhibition homes; Exhibition villages; Group homes; Health consulting rooms; Home businesses; Home industries; Hostels; Places of public worship; Recreation areas; Respite day care centres; Roads; Semi-detached dwellings.

DESCRIPTION OF LAND USES / CHARACTER OF AREA

The general industrial areas comprise of a wide area of warehouse and manufacturing uses at a large scale with 24 hour / 7 day per week operation such as Berri Juices (industry shown on enlarged view of interface)

The adjoining residential area comprises a mix of low density cottages developed during the 1980's. They comprise generally of "substantial" dwellings with a number of improvements.



REVIEW & COMMENT ON INTERFACE / BUFFER CONTROLS

A. Holroyd Concept Development Control Plan 2013 sets a range of interface controls in terms of setbacks

Industrial development adjoining residential shall comply with the setbacks in table below:

Table 1. Setback Controls

Boundary	Minimum Building Setback (includes the landscape setback required)	Landscaping Setback (within the building setback)
Side – adjoining a non- industrial use/zone other than residential	4.0m (Refer to C4 for exceptions)	2. 0m
Side – adjoining a residential use/zone	6. 0m	3. 0m
Rear – adjoining a non- industrial zone other than residential	4.0m (Refer to C4 for exceptions)	2. 0m
Rear – adjoining a residential use/zone	6. 0m	3. 0m

B. Holroyd City Council Local Environment Plan (LEP) 2013

Clause 6.9 of the LEP describes the required buffer between industrial and residential areas along the boundary between Woodpark Road industrial precinct and the adjoining residential to the north. The objectives and standards of this clause are as set out below. In effect the clause restricts residential and industrial uses from occurring in the designated buffer as illustrated on the plan attached. That buffer has a width of 60 metres.

6.9 Buffer area between industrial and residential zones

• The objectives of this clause are as follows:

٠

- to maintain an adequate separation between general industrial land uses and residential land uses,
- o to prevent any likely adverse impacts of outputs of industrial land uses (including noise, vibrations, odours, fumes, smoke, vapour, steam, soot, ash, dust, waste water, waste products, grit or oil) on adjacent residential dwellings,
- o to ensure that neighbouring residents can enjoy a reasonable level of amenity without preventing the operation of general industrial land uses,
- to provide visual separation of the primary buildings and structures on industrial land from neighbouring residential dwellings.
- This clause applies to land identified as "Industrial-residential buffer area" on the Site Specific Provisions Map.
- Despite any other provision of this Plan, development must not be carried out on land to which this clause applies other than:

if the land is in Zone R2 Low Density Residential—development permitted on land in that zone in the Land Use Table (excluding residential accommodation), orif the land is in Zone IN1 General Industrial—development permitted on land in that zone in the Land Use Table, but only if the consent authority is satisfied that the development is consistent with the objectives of this clause.







ACT R: +61 2 0230 7865 E: planning act@au.knightfank.com R: +61 2 9628 1100 E: planning naw@au.knightfank.co

3. FACTORY STREET GRANVILLE







Frank TOWN PLANNING

ACT R: 461 2 6230 7655 E: planning act@au knightfrank.com NSW R: 461 2 8008 1100 E: planning, nave@au knichtfrank.com



Clyde / Parramatta Council (Sydney)

LAND USE ZONING

IN1- General Industrial

Permitted Uses: Building identification signs; Business identification signs; Depots; Food and drink premises; Freight transport facilities; Garden centres; General industries; Hardware and building supplies; Horticulture; Industrial training facilities; Kiosks; Landscaping material supplies; Light industries; Liquid fuel depots; Neighbourhood shops; Plant nurseries; Roads; Rural supplies; Timber yards; Vehicle sales or hire premises; Warehouse or distribution centres.

R2- Low Density Residential

Permitted Uses: Bed and breakfast accommodation; Boarding houses; Building identification signs; Business identification signs; Community facilities; Dual occupancies; Dwelling houses; Educational establishments; Emergency services facilities; Environmental facilities; Environmental protection works; Exhibition homes; Exhibition villages; Flood mitigation works; Group homes; Health consulting rooms; Home-based child care; Home businesses; Home industries; Hospitals; Hostels; Neighbourhood shops; Public administration buildings; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Roads; Seniors housing; Water recycling facilities

DESCRIPTION OF LAND USES / CHARACTER OF AREA

The industrial area of Clyde comprises of large scale warehouse/ distribution centres (24 hours 7 days a week operations) with operators such as Australia Post major mail centre., being the major metropolitan centre referred to as the Sydney Gateway Facility. The adjoining Clyde rail marshalling yards are the largest metropolitan rail yards in Sydney with 24 hours/7 days per week shunting and storage of trains.

The low to medium density residential area comprises of both detached and residential flat buildings of circa - 1950s. Factory Road forms the effective separating of the two zones.

REVIEW & COMMENT ON INTERFACE / BUFFER CONTROLS

There are no specific interface buffer controls with the effective setback being the street address / road separating the residential from the industrial precinct. There is an existing landscape screen address of the majority of the industrial properties to the street.

Parramatta DCP 2011 Part 3 – Specific design requirements are intended to ensure that siting and design of buildings minimises noise impacts from abutting busy roads, rail corridors and other noise-generating land uses. The design principles of the DCP state that where dwellings are proposed within proximity to noise-generating land uses, appropriate materials with acoustic properties should be incorporated such as solid core doors with seal vents and suitably treated glazing.





4. WELLS STATION ROAD MITCHELL



FORREST LANDS - TRALEE
MITCHELL INDUSTRIAL/RESIDENTIAL INTERFACE REVIEW



Scale (1:5000@A3)

100 200

50



- San Martin Arrow Rural Block No:778 IZ1

ACT P +61 2 6230 7855 E, planning.act@au.knightfrank.com NSW P. +61 2 9028 1100 E, planning.gov@au.knightfrank.com



E. planning.new@eu.krighthank.com | 🔘 😡





Mitchell (North Canberra)

LAND USE ZONING

Mostly IZ1 (General Industrial) some IZ2 (Mixed Industrial). The adjoining residential areas are zoned R3 being generally low-rise to medium density in character.

DESCRIPTION OF LAND USES / CHARACTER OF AREA

Majority of the land adjacent to residential is zoned as IZ1 (General Industrial) with a small number of blocks zoned as IZ2 (Industrial Mixed Use) at the intersection of Hoskins Street and Wells Station Drive.

In the residential suburbs of Franklin and Harrison, the zoning adjacent to Mitchell is RZ3 (Urban Residential) and CZ5 (Mixed Use)

The average distance between the industrial block boundaries to the residential block boundaries is approximately 100m.

The industrial uses directly adjacent to Franklin/Harrison mainly consist of storage, warehouses, building/landscape supplies and the Mitchell Recycle Centre.

REVIEW & COMMENT ON INTERFACE / BUFFER CONTROLS

The average distance between the industrial block boundaries in Mitchell to the residential block boundaries in Franklin and Harrison is approximately 100m. Whilst there is landscape/tree screen along the northern (road) frontage of the industrial precinct, there are no specific noise attenuation measures.

There are no specific buffer controls in place. The distance between the Mitchell industrial area and the Franklin/Harrison areas is defined by the width of the road corridor.



5. CANBERRA AVENUE FYSHWICK



FORREST LANDS - TRALEE FYSHWICK INDUSTRIAL/RESIDENTIAL INTERFACE REVIEW

Dwg No. 257855.01_002_A OCTOBER_2014 Scale (1:5

Scale (1:5000@A3)

50 100 200



ACT P. +61 2 6230 7855 E. planning.act@au.knightfrank.com NSW P. +61 2 9028 1100 E. planning.nsw@au.knightfrank.com







Fyshwick (Central East Canberra)

DESCRIPTION OF LAND USES / CHARACTER OF AREA

Majority of land in Fyshwick adjacent to residential is zoned as IZ2 (Industrial Mixed Use) and CZ2 (Business Zone)

To the south west across Canberra Avenue is the suburb of Narrabundah, approx. 70m SE are residential apartments, and RZ1 with single dwelling houses approx. 100m away. Approximately 150 metres to the west is St Clare's College approx. in Griffith.

To the north west is Kingston, approx. 80 metres away which consists of residential apartments, professional offices and a hotel.

It should be noted that the 'lighter' industrial uses are in the western end of Fyshwick mainly consisting of food wholesale, markets, mail distribution, commercial offices, a petrol station, fast food outlet and fire station in IZ1 and consulting/commercial offices & power kart(in CZ2 zone)

REVIEW & COMMENT ON INTERFACE / BUFFER CONTROLS

The average distance between the industrial/business zone block boundaries in Fyshwick to the residential block boundaries in Narrabundah is 70m.

No buffer controls appear to be in place. The distance between the Fyshwick industrial area and the Narrabundah/Griffith/Kingston areas are defined by the width of the road corridor.



6. HUME



FORREST LANDS - TRALEE HUME (SOUTH 1/2) INDUSTRIAL/RESIDENTIAL INTERFACE REVIEW

 0
 50
 100
 200

 Dwg No. 257855.01_004_A
 OCTOBER_2014
 Scale (1:6000@A3)

ACT P. +61 2 6230 7855 E. planning.act@au.knightfrank.com NSW P. +61 2 9028 1100 E. planning.nsw@au.knightfrank.com







Hume (South East Canberra)

LAND USE ZONING

• Mostly IZ1 (General Industrial) some IZ2 (Mixed Industrial)

DESCRIPTION OF LAND USES / CHARACTER OF AREA

The majority of land adjacent to the ACT border in Hume is zoned as IZ1 (General Industrial)

In the north mainly consisting of Storage, Warehouses, Formwork, Earth Moving Machinery Hire and Freight businesses.

In the south mainly consisting of Storage, Freight, Records Management, an Asphalt plant and several vacant sites.

An indoor recreation (trampoline) centre adjoins the existing asphalt plant.

Overall Hume can be characterized asgeneral industrial in the mix of uses. There is only one use that might otherwise be regarded as potentially offensive, that use is the existing asphalt plant.

REVIEW & COMMENT ON INTERFACE / BUFFER CONTROLS

The buffer distance of 250 metres as required by Queanbeyan City Council together with a proposed 150 metre vegetation screen is intended to separate the industrial uses from future urban uses in South Tralee.

