Planning Connects - Planning for Freight and Logistics
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Freights Importance to the NSW Economy

Freight activities contribute $66 billion to the NSW economy.

> 500,000 people are employed in broader logistics industry.

Sydney CBD and its 630,000 workers are supplied by 35,000 commercial vehicle trips every week day.

Freight task across the state is expected to grow 28% to 618 million tonne in 2036.
Freight Challenges

Freight can create **negative impacts** such as traffic, air, light and noise pollution or effects of vibration.

Important to plan appropriately to **accommodate** freight while **protecting** the health, safety and quality of life of residents.

**Land use planning** decisions have a critical impact on freight. Any inefficiencies are passed on through supply chain.

Freight transport is **commercial, service orientated** and **non-discretionary**. From arriving at the port to delivering to the end customer.
Complexity, Connectivity and Customer Service

Who involved?
- Public sector
- Private sector
- Local communities

A clear plan provides investment certainty and hence freight efficiency.
Freight is a Global Challenge

- As global economies and population grow so too does the need for trade routes
- It is predicted that Asia Pacific will be the centre stage of the global container trade
- New opportunities are also emerging to cross the Arctic as a result of the melting ice caps.
Freight as a Consideration in Regional Planning

- The nine NSW regional plans address connectivity as a core component of future prosperity.
- A region/regional community needs to be able to connect efficiently to markets, be that inter/intra State.
Growth of Demand for Freight Activity in Sydney

Across Sydney freight is expected to grow by about 50%.

This is due to:
- Population growth
- Changing household consumption trends.

More demand for transport services in:
- Construction materials
- Management of waste.

Projected growth to 2036
Growth of the Freight Task

More people, jobs and housing = More freight
More Choice = More Social Benefit = More Freight

For instance in one short section of a Sydney CBD street we found there was a consumer choice of 230 different types of bread for sale.

Bread by numbers:
- 1 side of the street in a 220 metre CBD block
- 21 shops and cafes selling bread
- 35 bread suppliers
- 80 deliveries each day
E-Commerce and the Growth in Freight Activity

The implications of growth in Australia:

Amazon tipped to win $28b local market share through speed, not price (SMH, October 19\textsuperscript{th} 2018).

We can expect a significant increase in white van traffic from Amazon AND its competitors.

Alternate approaches elsewhere in the world (i.e. New York, USA)

- Development of a warehouse facility on the fifth floor of a Manhattan commercial tower
- Use of the subway to deliver packages to customers.
The way Freight and People are Moving is Changing

**THE OLD**

- Integrated transit

**THE NEW**

- Point to Point
The Changing Nature of Freight

Uberisation of Services

- Consumer expectations have led to an increased demand for instant deliveries
- Outsourcing of tasks has led to ‘new’ methods of delivery, such as the bicycle

Go-Get

- Urban fabric is being influenced by the emergence of ride share services
- Shared cars and vans are for hourly rent at fixed spots across the city, including delivery vans at IKEA.
Planning and Freight Spatial Challenges

- 24/7 supply chains and the constraints
- Encroachment
- Corridor preservation
- Creating successful places
- Freight networks – reorganising logistics
- New developments – accommodating freight activity
- Land use planning and logistics innovation
24/7 Supply Chains and Barriers

There is increasing importance placed on 24/7 supply chain operations to maintain competitiveness.

It is important that locations around key freight networks are not adversely affected by traffic patterns or increased congestion which create barriers for 24/7 freight operations.
Managing Kerbside Space in Urban Areas – Competition for its use

- Peak delivery activity
- Hourly Capacity

Opportunity

Hourly Demand

6:00 AM  7:00 AM  8:00 AM  9:00 AM  10:00 AM  11:00 AM  12:00 PM  1:00 PM  2:00 PM  3:00 PM  4:00 PM  5:00 PM  6:00 PM
Sensitive Developments Encroachment on Key Freight Corridors

Rising encroachment and demand for residential land

Inability to use the land for its current and future planned activity and capacity

Reduced amenity for the sensitive uses

Operation impacts such as speed restriction, limitations on hours of operation, size and weight limitations.
Example: Residential dwellings adjacent to a rail corridor
Freight as a Good Neighbour – Better Planning

**Good site design** such as providing staging areas for freight delivery and site orientation to minimise impacts on residents.

**Zoning consideration** such as the use of buffer zone and complementary land uses to reduce conflicts between incompatible land users.

**Corridor preservation** provides certainty for communities, businesses and land owners and reduces the cost of providing infrastructure in the long term.
Considerate planning example: Moorebank Intermodal Terminal
Corridor preservation example: Western Sydney Freight Line (WSFL)

Reliance on road transport risks increasing congestion and environmental externalities.

At least 54 trucks = 640 metre Port trains
Emerging Logistics Typology example: Coles
Key Urban Constraints

Capacity for managing increased freight and servicing activity is constrained by:

• Non-discretionary transport task
• Limited and finite kerbside space
• Lack of off-street facilities (loading docks)

Although freight is always essential, the best “place” outcomes are achieved when freight is less conspicuous.
World Class Places and Facilities: Barangaroo

To get this...

You need this... 10,000 times a month
Consequence of Poor Planning for Freight and Servicing

Poor Building Accessibility
- Difficult onsite access/lack of capacity
- Reliance on on-street servicing from Day 1
- Transport accessibility is not in green ratings

Deliveries
- Drivers rely on and compete for on-street parking

Commercial Operating Decisions
- Operators take the easiest and fastest option

Servicing
- Bins monopolise valuable kerbside space
Strategic planning – a Logical Response

- Statutory planning control, whilst necessary, lack the flexibility to address the scale of change and evolving nature of the freight and logistics industry.
- Recent amendments the Environmental planning and Assessment Act (1979) have strengthened the ability and flexibility of the planning system to strategically address the changes in the industry.
- For instance Local Strategic Planning Statements.

For Instance – Parkes can position itself to be a freight and logistics node as a result of the Investment in the Inland rail.
Freight Network Design – Emerging Opportunities

Current status quo:

🌞 Daytime Activity

Emerging Scenario:

🌙 Maintain Efficient Metro Movements

🌞 Space Efficient Urban Movements

CBD Fringe Freight Interchange/Precinct Docks

 меньший грузоподъемность $\$$

/customer

/customer

/customer

/customer
DHL Facilities in Western Sydney

Six warehouses totalling over 146,000sqm servicing over 200 clients

45 minutes processing times
Freight Consolidation and Interchanges

International example: Tokyo, Skytree

- Freight trips to the site are halved by offsite consolidation.

Sydney example: Westfield

- The logistics operator consolidates in Eastern Creek and sends freight to a facility underneath Westfield. A large hand trolley is used to push deliveries around the area.

Our own work: Goulburn Street car park Courier Hub

- Re-purposing unused space for an interchange point for vans to hand over deliveries going into Sydney CBD.
Better Awareness and Planning for Freight Activity in New Developments

Dock Assessments (ongoing work)

[Graph showing correlation between building size and number of movements in peak hours, with points labeled for World Square, Barangaroo, Gateway, Westfield, Food court, and Hotel/Dining.

Bar chart showing delivery profile for a 46,000 sqm Commercial/Retail CBD building, with time of day divided into 00-6, 6-9, 9-12, 12-15, 15-18, and 18-00, and vehicle types represented in purple for Courier/Vans, red for SRV, blue for HRV/MRV, and green for Dock Spaces.]
Innovative Logistics Approaches - Current Planning Proposals are Changing Freight

New developments in high land-value areas include a proposal for off site freight consolidation.

Mixed use multi storey warehouse and commercial office developments.
Freight Lands not Industrial Lands

- The employment function and jobs distribution of urban areas are changing.
- The planning dialogue needs to stop talking solely about protecting industrial lands rather also identifying and reserving freight and logistic specific lands.
- Freight and logistics activities are different and as such need to have separately identified lands for activities.
Successful Outcomes

Understanding and better incorporating freight activity into planning leads to **improved outcomes** for:

- Infrastructure
- Efficiency
- Capacity
- Safety
- Sustainability

Compromised planning outcomes between industrial and residential uses **fails** both industry and residents.
Freight as a Planning Priority
It’s important that freight is recognised in planning

**NSW Freight and Ports Plan** aligns with the NSW Government’s state-wide land use and infrastructure plans.

The Plan identifies key issues that need to be considered and incorporated into *land use* and *infrastructure planning*.

The **success** of the Plan relies on **strong collaboration** between the three level of governments, private sector and the community.
Thankyou for your time!

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