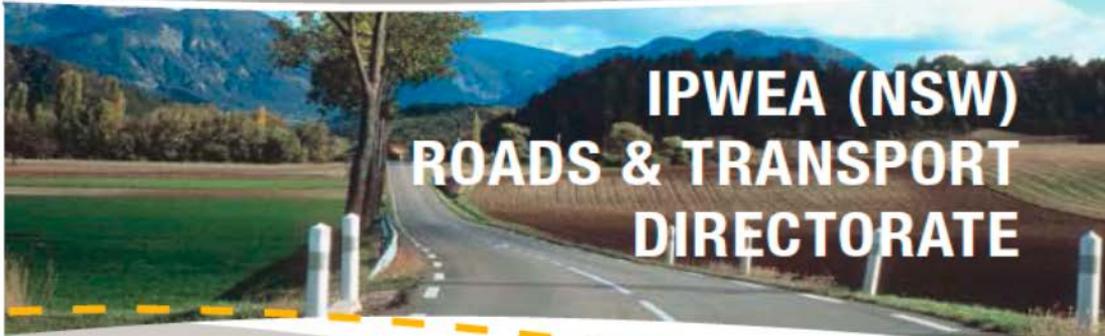




New South Wales

**IPWEA**

INSTITUTE OF PUBLIC WORKS  
ENGINEERING AUSTRALASIA



**IPWEA (NSW)  
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## **Local Government Involvement in Transit Oriented Development**

An information paper prepared by

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# Local Government Involvement in Transit Oriented Development

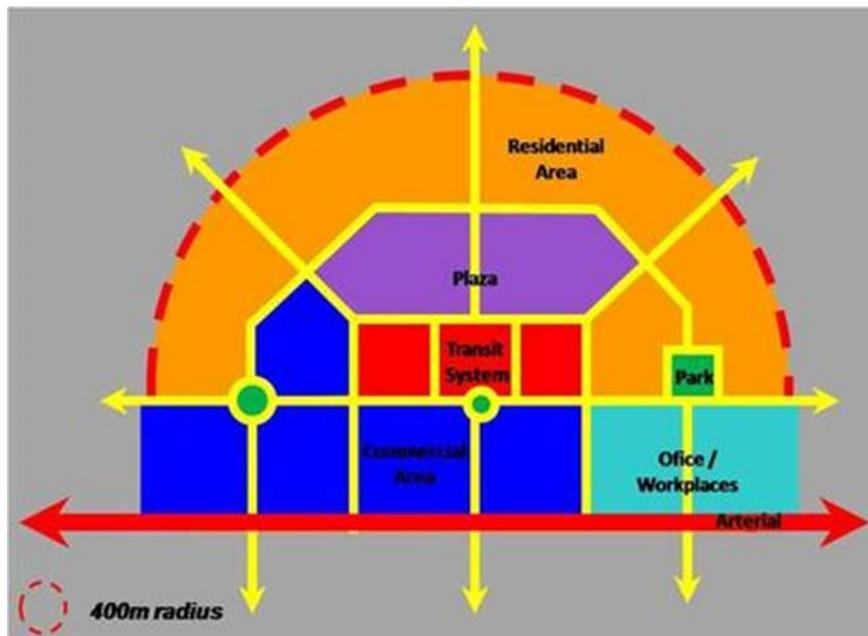
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## 1. What is Transit Oriented Development?

In its most basic form, Transit Oriented Development (TOD) is the use of space over or adjacent to rail corridors, bus interchanges or other transport infrastructure to provide for a range of activities such as shops, as well as commercial and residential uses. One of the outcomes of this form of development is an increased use of public transport and a corresponding reduction on the use of private vehicles to meet day to day transport needs.



Typical TOD planning. Source All Aboard Erie website at:

[http://allaboarderie.com/?page\\_id=450](http://allaboarderie.com/?page_id=450)

The remainder of this paper identifies a number of information sources detailing Transit Oriented Development and provides appropriate links to the source documents where greater detail can be accessed.

## 2. Some References

### 2.1. Center for Transit Oriented Development (US)

Transit-oriented development, or TOD, offers a mechanism to create efficient urban form, and provides a choice for development with a lower carbon footprint than traditional development. Defined as a type of development that occurs around transit nodes, resulting in a compact, mixed use, pedestrian oriented type of neighborhood, TODs provide an opportunity to reduce household vehicle travel and a reduced carbon footprint. This report examines the greenhouse gas reduction potential of TOD, in terms of the transport sector, and measures the emissions reduction potential of six types of neighborhoods centered on fixed rail transit stops.

<http://ctod.org/pdfs/2010TODPotentialGHGEmissionsGrowth.pdf> p8.

### 2.2. Planning Institute Australia, South Australian Division

Put simply, TODs are essentially activity centres containing a broad mixture of land uses; places that promote housing, employment, commercial and community opportunities supported by accessible, frequent, reliable and safe public transport services and other transport modes. They can range in scale from being major primary centres, for instance based on a Marion Westfield, to smaller more local centres focussed on strip shopping/mixed use centres along transport corridors. Ideally, they need to be more widely transportation oriented and not necessarily concentrated only on formalised transit stations.

Irrespective of scale, however, TODs must possess certain elements: the general perception is that TODs will offer medium to high density housing, established around a transport node, centres and/or along linear corridors, integrated with a mix of retail, employment, commercial and civic development opportunities with enhanced accessibility to services via walking and cycling links. Although there are other factors that may impact on the successful implementation and operation of a TOD, an appreciation of these elements is fundamental to understanding how a TOD is defined.

<https://www.planning.org.au/documents/item/278>

### 2.3. Victoria Transport Policy Institute, Canada

*Transit Oriented Development* (TOD) refers to residential and Commercial Centers designed to maximize access by Transit and Nonmotorized transportation, and with other features to Encourage Transit Ridership. A typical TOD has a rail or bus station at its center, surrounded by relatively high-density development, with progressively lower-density spreading outwards one-quarter to one-half mile, which represents pedestrian scale distances. It includes these design features (Renne 2009):

- The neighborhood is designed for Cycling and Walking, with adequate facilities and attractive street conditions.
- Streets have good Connectivity and Traffic Calming features to control vehicle traffic speeds.
- Mixed-use development that includes shops, schools and other public services, and a variety of housing types and prices, within each neighborhood.
- Parking Management to reduce the amount of land devoted to parking compared with conventional development, and to take advantage of the parking cost savings associated with reduced automobile use (NJDOT, 2007).

- Transit Stops and Stations that are convenient, comfortable and secure, with features such as comfortable waiting areas, vendors selling refreshments and periodicals, washrooms, Wayfinding and Multi-Modal Navigation Tools.



Transit Oriented Development is a particular category of Smart Growth, New Urbanism and Location Efficient Development. It can do more than simply shift some car trips to transit: it also increases Accessibility and Transportation Options through land use Clustering and mix, and nonmotorized transportation improvements. This reduces the distance required for car trips, allows a greater portion of trips to be made by walking and cycling, and allows some households to reduce their car ownership, which together can result in large reductions in vehicle travel (Land Use Impacts on Transport). This reduces total transportation costs and helps create a more Livable community, in addition to supporting TDM objectives.

High-quality transit supports the development of higher-density urban centers, which can provide accessibility and agglomeration benefits (efficiencies that result when many activities are physically close together), while automobile-oriented transportation conflicts with urban density because it is space intensive, requiring large amounts of land for roads and parking facilities (Boroski, et al. 2002). Large scale Park & Ride facilities tend to conflict with Transit Oriented Development, since a rail station surrounded by large parking lots and arterials with heavy traffic is unlikely to provide a good environment for residential development or pedestrian access. It is therefore important that such facilities be properly located, designed and managed to minimize such conflicts.

Renne (2009) defines specific factors required for true Transit-Oriented Development, so residents own fewer cars, drive less, rely more on alternative modes (walking, cycling, public transit, carsharing and taxi), and have a high level of local accessibility, as opposed to Transit Adjacent Development, which is conventional, automobile-oriented development located near transit stations. Pollack, Gartsman and Wood (2013) developed the eTOD station area rating system which evaluates specific rail stations based on the quality of transit service, rider orientation (the types of transit riders they tend to serve) and the connectivity of local development to the station. Hale (2011) discusses various factors that affect transit station access mode share. <http://www.vtpi.org/tdm/tdm45.htm>



## **2.4. Lessons from California, New Jersey, and Western Australia**

Town planning in Western Australia comprises strategic and statutory planning. Network City sets the strategic vision for the region. Also dealing with strategic planning, the TOD committee, formed in 2004 and chaired by the Department for Planning and Infrastructure (DPI), has members representing the Public Transport Authority (PTA), TransPerth, Department of Housing and Works, Main Roads WA, Midland Redevelopment Authority, East Perth Redevelopment Authority, LandCorp, and the Western Australian Local Government Association. This cross-agency group replaced the Urban Rail Station Redevelopment Coordinating Committee, formed at the request of the Minister for Planning and Infrastructure in 2001. The role of the earlier committee was to provide a planning context for the PTA's Building Better Stations capital works program. Since inception, the TOD committee has reviewed the TOD potential of every station on the network (including major bus-only centers) and prioritized TOD activity in accordance with the following six criteria:

1. Strategic significance of location (i.e., metro centers, university, or hospital)
2. Potential for maximizing ridership, through increased catchment of residential, business, or park and ride
3. Infrastructure need (i.e., station or road upgrades)
4. Potential for socioeconomic benefits (i.e., community activity, public safety, jobs)
5. Partnership potential (i.e., local government or private sector willingness)
6. Development opportunities (i.e., significant public or private land parcels adjacent and potential number of dwellings)

Statutory planning for TOD, as mentioned, is governed by Development Control Policy DC 1.6, which has the following objectives:

- To promote public transport as an alternative to car travel and enhance mobility in the community, particularly for those who do not have access to a car.

- To ensure the optimum use of land close to railway stations, bus terminals, transport interchanges and corridors containing frequent public transport services for residential, commercial and other intensive uses.
- To maximize accessibility to rail and other public transport services, in particular high-frequency bus routes.
- To maximize accessibility by rail and other public transport to a range of work, shopping, and other urban activities. *Journal of Public Transportation*, Vol. 11, No. 3, 2008 100
- To facilitate safe pedestrian and cycle access to and from public transport services and a range of activities focused around them.
- To promote the development of a more sustainable urban form.
- To promote designs for public transport that minimize any adverse impact on local amenity arising from public transport operations.
- To ensure adequate consideration is given to public transport access by planning authorities, consultants, and developers.

<http://www.nctr.usf.edu/jpt/pdf/JPT11-3Renne.pdf> pp 98-99



## **2.5. Transit Oriented Development Making it Happen**

The transition from planning to implementation is complex but possible with a professional project management approach. The steps to implementation include:

- Identify the site's opportunities and constraints (including notional financial constraints).
- Establish a governance structure such as a steering committee, usually chaired by the landowner's or developer's representative.
- Develop a shared vision and a concept with stakeholders and the community. Experience shows that if financial, logistical and technical constraints are identified and outlined early on, involving stakeholders and community members in problem solving as part of the visioning and planning process can be a fruitful approach.
- A project implementation plan is required. Setting objectives and scoping the works under a sustainability framework, ensures place-making is addressed

- through the creation of socio-economic (or ‘soft’) infrastructure as well as physical infrastructure. Environmental targets can be included under such headings as conservation, contamination (clean up), water and energy efficiency, recycling, etc.
- Identify control mechanisms for building development and place-making. (eg through design guidelines, town planning schemes, structured sales, developer contributions, place manager, design competitions, etc.).
  - For each item in the scope of work, including control mechanisms, it is important to allocate clear responsibilities. The scope of work can all be costed, risks assessed and a feasibility study undertaken. The outcome of the study will help determine the type of overall implementation model.
  - The developer prepares a business case based on the implementation plan and the chosen implementation model.
  - Where not all the scope of works are the developer’s responsibility (particularly where long term ‘soft infrastructure’ is required), a project agreement is important. <http://erfanins.ir/wp-content/uploads/2016/04/TOD.pdf> p129



- Improves the viability of public transport and so facilitates the provision of better public transport services
- Enables a more compact city, providing housing and development opportunities without adding to city sprawl.
- Enables more affordable housing. A basic apartment in an activity centre takes up less land and should be able to be provided more economically than an outer suburban greenfields development
- Creates more activity and vibrancy and community life in a centre by having more people living closer together, who are walking, cycling, catching public transport and generally interacting with each other much more than if they lived further apart.
- Improves the economic viability of businesses in the centre by creating a bigger market with easy access for their products
- Can revitalize older centres and shopping strips that have struggled to compete with car based shopping malls

- Brings new development to replace areas which are perceived as being old and rundown
- Allows for more intensive development that would otherwise be considered as inappropriate if it was car dependent.

<http://erfanins.ir/wp-content/uploads/2016/04/TOD.pdf> p173

## 2.6.NSW Legislative Assembly Committee on Transport And Infrastructure Utilisation of Rail Corridors November 2012

The Committee on Transport and Infrastructure was appointed on 22 June 2011 to inquire into matters relevant to its portfolio responsibilities, which are: Regional Infrastructure and Services, Special Minister of State, Transport, Roads, Ports, Tourism, Major Events, Hospitality, Racing, the Arts, the Central Coast and the Legislature.

Conduct Of The Inquiry - Terms of reference:

On 23 November 2011, the Committee resolved to inquire into and report on the utilisation of air space above, and the land adjacent to, the rail corridor in the Greater Metropolitan Area of Sydney, including the Hunter and the Illawarra. The terms of reference required the Committee to examine matters including how rail corridors may:

- provide opportunities for mixed use property development
- generate income for funding future infrastructure projects
- facilitate sustainable urban renewal and development
- facilitate transit oriented development schemes around railway stations
- connect communities either side of railway lines.

In conducting its inquiry, the Committee also considered factors including:

- The current planning and policy framework;
- Barriers to implementing rail corridor projects;
- The financing and funding of such projects;
- Methods of assessing the compatibility of projects with the local community; and
- Best practice from other jurisdictions.

<https://www.parliament.nsw.gov.au/committees/DBAssets/InquiryReport/ReportAcrobat/5535/Utilisation%20of%20rail%20corridors%20report%201-55.pdf> p1



## **2.7. Infrastructure Partnerships Australia Inquiry into the Utilisation of Rail Corridors, February 2012**

The construction and maintenance of NSW's rail infrastructure requires a substantial taxpayer investment. In the context of a constrained balance sheet, and increasing competition for government resources, any opportunity to improve the utility of mass transit and enhance the investment proposition of rail infrastructure should be maximised.

The Legislative Assembly Committee on Transport and Infrastructure Inquiry into rail corridor utilisation therefore represents a timely and important opportunity to explore the structures and tools which could be deployed to derive a greater benefit for taxpayers from their investment in rail infrastructure. Infrastructure Partnerships Australia welcomes the opportunity to contribute to the Inquiry on this vital policy issue.

Infrastructure Partnerships Australia is the nation's peak infrastructure body. Our mission is to advocate the best solutions to Australia's infrastructure challenges, equipping the nation with the assets and services we need to secure enduring and strong economic growth and importantly, to meet national social objectives.

Our Membership is comprised of the most senior industry leaders across the spectrum of the infrastructure sector, including financiers, constructors, operators and advisors. Importantly, a significant portion of our Membership is comprised of government agencies.

Infrastructure Partnerships Australia draws together the public and private sectors in a genuine partnership to debate the policies and priority projects that will build Australia for the challenges ahead.

The infrastructure backlog in NSW is compounded by the constrained balance sheet of the NSW government. The 2011-12 New South Wales Budget estimates Total State Sector Net Financial Liabilities at 132.2 per cent of revenue this financial year. Over the next 40 years, on a 'no policy change' basis, expense growth in social security and welfare will run at 6.6 per cent and health will be 6.2 per cent where revenues are projected to average 4.9 per cent growth. Set against this picture of a balance sheet under pressure, and social sector expense growth outstripping revenue growth, the NSW Government's capacity to fund required infrastructure projects is severely constrained.

It is critical NSW address its infrastructure deficit and investment backlog. According to the Australian Bureau of Statistics, the population of Sydney, based on current trends in births, deaths and migration, is expected to grow from 4.3 million to 7 million by 2056. In this context innovative solutions for funding infrastructure projects in NSW are needed. The utilisation of land near rail corridors and train stations is an opportunity for government to tap into the value created by the building of rail infrastructure. This new stream of income can be used for partially funding investments in new infrastructure and the maintenance of existing infrastructure.

Infrastructure Partnerships Australia's submission to the NSW Legislative Assembly Committee on Transport and Infrastructure Inquiry into the utilisation of rail corridors focuses on this opportunity, by outlining a suite of mechanisms which can be used to capture the value created by the provision of mass transit infrastructure. The submission will examine opportunities to use Joint Development, Benefit Assessment Districts (BAD) and Tax Increment Financing (TIF) at stations and precincts – including case studies of best practice from Hong Kong and the United States. The submission also considers opportunities to increase the utility, amenity and cost-effectiveness of transport infrastructure through use of planning and land use tools such as Transit Oriented Development (TOD).

## VALUE CAPTURE

Capturing a portion of the value created by investment in rail infrastructure represents a key opportunity for governments to expand the suite of funding options used to sustain a continued investment in infrastructure.

The ideas of value capture can be implemented using an array of policy mechanisms. Broadly these policies can be divided into two groups, taxation mechanisms and land use policies. Governments can utilise existing or new taxation schemes to capture the value uplift of land in close proximity to new rail infrastructure. Most commonly this occurs through government levying a tax on land holders whose property value has increased as a result of new transport infrastructure being built. Conversely in situations where governments own land or can buy land at pre-infrastructure prices, they can sell, lease or grant development rights for land that is located near public transport, capitalising on the land's increased value, resulting from its proximity to new rail infrastructure.

The potential application of value capture models may represent a well-timed opportunity for NSW. In recent decades, the budget capacity to invest in critical infrastructure has diminished, meaning that NSW has been unable to maintain the development of infrastructure at the same pace as the growth of the State. This growing fiscal gap means presently NSW is unable to address critical problems such as congestion, hospital waiting lists and a lack of sufficient social infrastructure. This legacy is perhaps most evident across the NSW State transport system. Long term under-investment has seen the state's transport network fail to meet the demands of growth and fall behind its domestic and international competitors.

The following sections on Stations and Precincts outline some of the specific opportunities to deploy value capture and utility enhancement principles on the NSW rail network. While not exhaustive, the submission offers the Committee some guidance on options to derive greater utilisation from the taxpayers' substantial investment in rail infrastructure.

<file:///C:/Users/msavage/Downloads/NSW%20Parl%20Inq%20-%20Rail%20Corridor%20Utilisation%20-%20Final.pdf> pp3-4

### 3. Local Government's Role

This paper sets out a number of information sources detailing Transit Oriented Development and provides links to the source documents where greater detail can be accessed.

There are several definitions provided together with some examples of the implementation of Transit Oriented Development across Australia.

Local government has a crucial role to play in this process. The success of TOD requires the integration of State and Local Government land use planning with the planning and operation of the transport network.

There are a number of excellent examples of Local Government having played crucial roles in the implementation of Transit Oriented Development. These include the development of thriving centres at the Bondi Junction, Chatswood and Hurstville bus / rail interchanges.