TRANSIT ORIENTED DEVELOPMENT (TOD)
BACKGROUND
INTRODUCTION

The “Bottineau Land Use Planning Framework” (2012) provides a good overview of many of the concepts of transit oriented development. The Framework Report highlights the Six Principles of Livability developed by the HUD-EPA-DOT Partnership, the Twin Cities region’s Corridors of Opportunity initiative and several of the best local examples from transit corridors in the Twin Cities area. Please refer to the Framework Report for more information on this overview. The goal of this pre-planning study is to build upon the previous work in order to support the future planning efforts that will follow.

1. Provide more transportation choices.
2. Promote equitable, affordable housing.
3. Enhance economic competitiveness.
4. Support existing communities.
5. Coordinate and leverage federal policies and investment.

Much has been written about TOD and numerous communities have attempted to develop TOD with mixed results while others have achieved impressive results. We will look at some of the underlying principles of TOD and also identify problems that communities and developers should be on alert for in order to maximize the benefits of TOD for the community.

BASIC PRINCIPLES

There are many definitions, guidelines and principles used to define TOD. Common elements include supporting mixed uses, increasing density and consideration of pedestrians.

One that is particularly memorable and well thought out was produced by Vancouver, Canada’s TransLink, “The Six Ds of Transit-Oriented Development”.

1. Destinations – Land and Location
2. Distance – Urban Structure and Street Network
3. Design – Public Realm
4. Density – Building Form and Massing
5. Diversity – Mix of Uses
6. Demand Management – Incentives and Disincentives
Destinations is the concept that a good transit line needs to have multiple high demand destinations along the line. As much as possible, these destinations should be close enough to station areas to be served without the need to transfer to another mode since this greatly reduces their benefit. When high demand destinations are near the line but not close enough for direct transit service by the main line, the transfer needs to be carefully considered to ensure that it is convenient, frequent and direct.

Distance is the concept that TOD areas need to be compact and people need to have the ability to quickly move between destinations such as housing, shopping, employment, recreation and the station itself. It is critical that TOD areas have adequate sidewalks and trails in the right locations to facilitate pedestrian movements. This should not be evaluated “as the crow flies” with ¼ mile or ½ mile radius drawings, but in terms of actual pedestrian walking time with a focus on the 5 minute and 10 minute walking distances. This is often accomplished with a grid street pattern, but can also be accomplished with strategically located trails or sidewalks that connect non-grid areas and reduce walking distance.

A new pedestrian connection would greatly reduce the walking distance between the Bass Lake Road station and existing retail areas.
Design is the concept that it is not just close proximity that matters, but also the design environment needs to be conducive to pedestrian, bicycling and transit use. Sidewalks need to be of adequate width and location to provide refuge for pedestrians in all weather conditions and not be subject to excessive road spray or disruption by snow storage needs. Public realm areas need to be well designed so that they are attractive, inviting and feel safe for all ages. Shade, weather refuge, pedestrian scaled lighting, public art, landscaping, public plazas and street furniture are just a few popular methods for increasing the attractiveness of the station area for pedestrians.

One area that is different for TOD than more traditional forms of development is that because pedestrians move much slower than automobiles, there needs to be many more opportunities for visual interest and at a finer detail than in auto-oriented development to provide the same level of stimuli. TOD areas need to be interesting and entertaining for users. Features such as surface parking lots can greatly extend walking distances and serve as obstacles for pedestrians if they are not located away from the prime pedestrian routes.

Density is the concept that TODs need to be designed to support ridership on the transit service. Those uses with the highest ridership generation potential should generally be located closest to the transit station where they can be mutually supportive of each other. Typically, the highest ridership generation uses are multi-story, non-residential uses such as office, retail, institutions and other employment centers. High density residential also generates important ridership, but like all residential, this ridership is usually concentrated in shorter blocks of time throughout the day. Single family residential, one story non-residential and long term surface parking lots generate very little ridership throughout the day and should be located furthest from the station so it does not dilute the level of activity at the station.
**Diversity** is the concept that recognizes that in order to create dynamic places and support quality TOD, there needs to be a variety of compatible land uses in close proximity to each other. This variety of land uses provides a greater chance that individuals using the TOD can satisfy multiple needs without needing to utilize a vehicle and that the station area will be active and vibrant throughout the day and evening.

Land Use diversity is also important between stations so that different, high quality experiences occur throughout the line. This station diversity supports greater ridership and quality of life for all communities along the corridor, but also serves a valuable role in creating bi-directional transit demand.

Finally, quality station areas are about people and maximizing different forms of diversity are supportive of the station’s success. Students, seniors, families and single adults have peak activity levels at different hours of the day or days of the week which promotes all day activity at the station. Income diversity is also important for employers so that workers of all skill levels are readily available to the employment centers.

**Demand Management** is the last concept and often one of the most controversial because it is more directly focused on reducing the attractiveness of automobile use. Common demand management techniques include reducing access to convenient parking. This is accomplished with a variety of techniques including eliminating free parking, instituting parking time limits, locating parking further away from station areas and providing lower minimum parking requirements to encourage TOD users to use transit for their transportation needs and minimize automobile uses. Automobiles will not be eliminated, of course, but unnecessary auto trips can be minimized.
TOD VS. TAD
When Transit Oriented Development is not implemented effectively, a community can experience what is referred to as Transit Adjacent Development. TAD is often referred to as TOD gone bad. TAD typically has several attributes of TOD, but also has been compromised in key ways. For instance, a common TAD trait is when a station area is designed with some dense components, but the station area is dominated by a commuter parking lot adjacent to the station. This sort of configuration favors the automobile commuter over the transit user resulting in a very low level of activity or interest in the station area throughout the day. In addition, the immediate transportation networks around the station become optimized for the commuter parking lot’s vehicle peak periods which often come at the expense of the pedestrian activity. Land uses become more residentially dominated and monotonous with few destinations which reduces ridership potential.

Other common causes of TAD include the following:

- Failure to provide adequate, convenient, safe, all season walking routes
- Reduction of activity density
- Developing the areas immediately adjacent to the station with residential uses rather than higher activity uses
- Poor design quality for the public realm
- Poorly designed feeder bus operations that are disruptive to pedestrian activity
- Lack of use variety
- Poor transition between auto oriented markets and transit oriented markets.

Effective TOD development is not an easy process, it does not happen overnight and generally will not begin to occur until the station is operational and the markets adapt to the new transit facility. TOD developments often involve challenges with site acquisition, contamination, and the difficult economics of any redevelopment. It will take time for the market to reorganize and adapt.

These challenges need to be clearly understood by policy makers and the public because there is often a level of impatience with TOD that can lead it down the TAD path. When there is TOD impatience, communities often make key compromises in order to speed the rate of development around the station so it is not deemed a “failure”. Unfortunately, these compromises often end up creating long term damage to the station area’s vitality and can result in actual failure.
WHY TOD?
For decades following WWII, the American land use pattern has been dominated by the automobile. The automobile provided the promise of greater mobility and opened up vast areas for development which people flocked to for decades, driven largely by the various life stages of the Baby Boom generation.

Unfortunately, as the out-migration continued and congestion levels rose, the quality of life in many of these areas began to decline. Highways became congested, commute times lengthened and neighborhoods were disrupted by persistent road widening which absorbed more of the land area, displacing homes and businesses.

The automobile oriented land use pattern also impacted market feasibility. The reduced densities of development and segregation of uses limited the variety of goods and services that are feasible for the market to provide. Increasingly, the lack of variety began to limit sectors of the market, such as retail, which resulted in most suburban areas having the same stores and service providers. If people wanted a more varied experience they typically had to flock to areas such as 50th and France, Uptown, Hopkins, Robbinsdale, St. Anthony Park, Linden Hills, Excelsior, etc. which were originally developed as transit oriented developments when the Twin Cities metropolitan area had a large streetcar system. Modern TOD is just a rediscovery of the principles that have made these historic streetcar areas popular with residents and visitors for decades.

Demographic shifts are also providing more demand for TOD. The traditional family of two parents and at least one child is shrinking and now constitutes only about ¼ of households. Two income families and single parent households have risen since WWII and this has increased the premium on time. Families are much busier and looking for ways to capture wasted time in their lives and the answer many of them are now choosing is to recapture lost commute time and lost yard maintenance time by moving into TOD areas. Senior citizens are the country’s booming demographic and are moving into TOD areas because they allow them to maintain mobility when they might not be comfortable driving an automobile and the close proximity of services allow them to satisfy many of their day to day needs in the neighborhood. Low income persons often struggle with the expense of automobile ownership and maintenance, but TOD areas provide opportunities to link housing to jobs and services without the need for an automobile, reducing this large household expense. Finally, young persons, particularly in the Echo Boom generation, have had a dramatic reduction in demand for drivers licenses and are attracted to TOD areas so they can avoid driving altogether and live a more sustainable lifestyle.

These demographic shifts have been recognized by the market and increasingly, housing, office and retail developers are providing demand in station areas and the prime obstacle is often trying to obtain suitable development sites.

TOD Benefits:

• Creates popular neighborhoods that maintain values over time
• Brings new types of goods, services, entertainment and employment to a community
• Builds a sense of community between people of different ages, incomes, and cultures
• Wider variety of lifecycle housing options available
• More efficient use of the land and resources
• Encourages healthier living through improving pedestrian and bicycle connections
• Boosts transit ridership
• 18 hour a day neighborhood activity provides safety and “eyes on the street”
• Fun and interesting areas attract visitors and increase economic benefits
• Fosters public/private partnerships
• Reduces household transportation expenditures