TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) was originally designed to reduce urban traffic congestion in larger cities. With its success it has since been established in numerous small to mid-sized communities to help manage transportation systems of all sizes.

What is TDM?

Transportation Demand Management (TDM) refers to a wide range of policies, programs, and services designed to improve the efficiency of roadways by reducing automobile congestion. TDM strives to achieve this by reducing the demand for vehicle use, especially single occupant vehicles, by influencing travel behaviour and providing more travel options to local residents, such as transit, walking, cycling, and ridesharing.

What are the Benefits of TDM?

> Many local governments are using to TDM to help manage their transportation systems, provide a balance between travel modes, and ensure they make the most cost-effective and strategic infrastructure improvements.

> TDM effectively supports and addresses many of the long range goals of local, regional, provincial and federal governments.

> TDM supports the policies and programs that result in a sustainable transportation system such as land use planning, parking policies, sustainable site design and focused programs that seek to maximize the livability of a community through encouraging behaviour change.

> TDM helps create more sustainable community transportation systems, save money, and increase the health and well-being of local residents.

> TDM increases the sustainability of roadways by eliminating traffic and their harmful pollutants.

INTEGRATING TDM STRATEGIES INTO LAND USE AND TRANSPORTATION PLANNING HAS PROVEN TO INFLUENCE COMMUTER CHOICE AND PROVIDE ECONOMIC, ENVIRONMENTAL, COMMUNITY AND SOCIAL BENEFITS TO ALL CONCERNED.

TDM OPTIONS

There are a wide range of TDM approaches that may be used to influence travel behaviour. Below are a few of the more common approaches, along with parking-specific approaches highlighted on the Parking Strategies poster.

Carshare

Carsharing is an arrangement that allows individuals to gain the benefits of private automobile use without bearing the full costs and responsibilities of ownership. Under carshring a household or business has access to a fleet of shared automobiles on an as-need basis. Liability and collision coverage is typically provided through the membership, and regular vehicle maintenance is administered by the cooperative. Each member purchases a one-time share in the cooperative, a monthly administrative fee, and a time-distance fee each time they use the vehicle. In British Columbia there are four cooperatives:

> Co-operative Auto Network (Greater Vancouver, mid-Vancouver Island)
> ZipCar (Greater Vancouver only)
> Victoria Car Share Coop (Greater Victoria only)
> Nelson Carshare Cooperative (Kootenays)

Ridesharing

Ridesharing involves any arrangement where a number of travellers share a single vehicle. Ridesharing often occurs among commuters, although not exclusively. Ridesharing can be either a carpool (informal) or vanpool (formal) arrangement.

Transit Pass

BC Transit offers the ProPass program for employees of an organization. The ProPass offers a discounted monthly rate to each employee, which is deducted from their pay cheque monthly.

Neighbourhood Zero Emissions Vehicles (NZEVs)

Neighbourhood Zero Emission Vehicles (NZEVs) are slow moving vehicles powered by an electric motor that produce no emissions and are designed to travel on four (4) wheels at a maximum speed of between thirty-two (32) km/h and forty (40) km/h. NZEVs are equipped with some of the same safety features as an automobile, such as seatbelts, glazed windshields, lights and brakes, which make them appropriate for safe travel on public roadways. NZEVs are low in weight and use batteries in place of conventional fuel.

In 2008, the BC government passed legislation permitting use of NZEVs on any public roadway 40 km/h or less, *or* any roadway under municipal jurisdiction posted at 50 km/h or less where the local government enacts a bylaw permitting NZEV use. Parksville is ideally suited for NZEVs as there are no provincial highways running through much of the City.

Trolleys/Shuttles

Trolleys or shuttles strengthen the alternatives to vehicle travel by filling in the gaps between public transit. They have the ability to link key destinations and help manage parking during special events.

Safe Routes to School

Safe Routes to Schools is an approach to ensuring the routes that children use (or could be using) to walk or bicycle to school are safe. This is often a joint initiative between the school and the municipality.

Bike to Work Week

Bike to Work Week is a week-long initative in Victoria and the Lower Mainland that encourages schools and employers to get competitive with one another and see who can complete the most trips by bicycle. This is an effective way to promote cycling.

NETWORK FEATURES

TRAFFIC CALMING

Traffic calming refers to the use of physical and non-physical measures on a street and includes streetscape, to influence motorists travel behaviour. Traffic calming serves the following purposes:

> To alter drivers behaviour, thereby affecting a positive safety impact
> To reduce the negative impacts of motor vehicle use
> To improve conditions for non-motorized street users

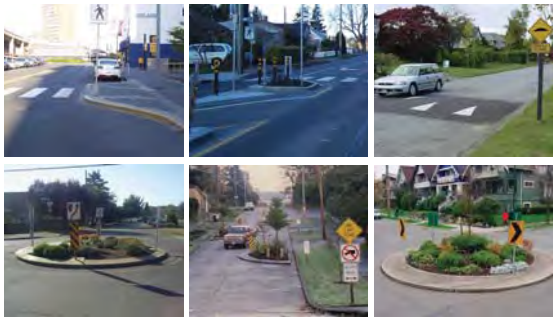
Traffic calming is especially significant in communities that are bisected by major roads, such as Parksville. The risk of an accident occurring and the consequences of those that cannot be avoided, can be minimized by applying measures which:

> Increase motorist's awareness that they are traveling through a community / residential neighbourhood, requiring a change in behaviour

> Encourage (or force) motorists to reduce vehicle speed

> Encourage (or force) motorists to use routes that support the aims of a functional road hierarchy

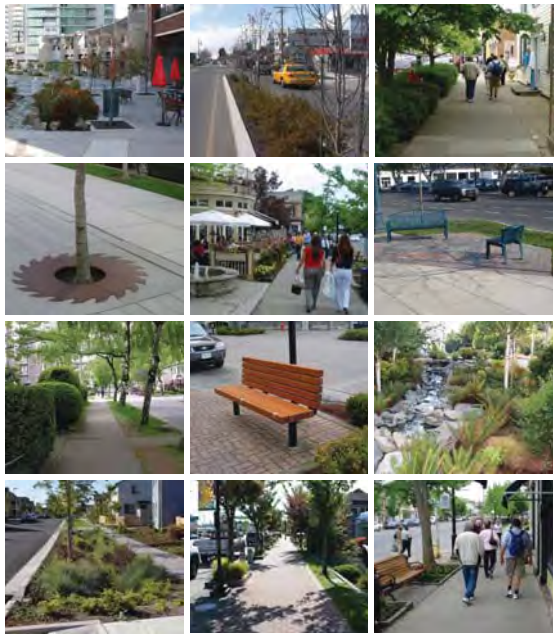
> Improve road conditions for non-auto modes, thus encouraging a reduction of the number of vehicle trips and subsequent exposure to accident risk



STREETSCAPE

Streetscape refers to infrastructure improvements that enhance the aesthetic and functional performance of a street. Streetscape improvements typically incorporate considerations for all travel modes, with the objective of creating "complete streets". Elements of a successful streetscape may include:

> Vehicle travel lanes
> Bicycle lanes
> Sidewalks
> Landscaping / street trees
> Street furniture (benches, garbage bins, bike parking, etc)
> Lighting
> Banners / public art
> Traffic calming features



ROUNDABOUTS

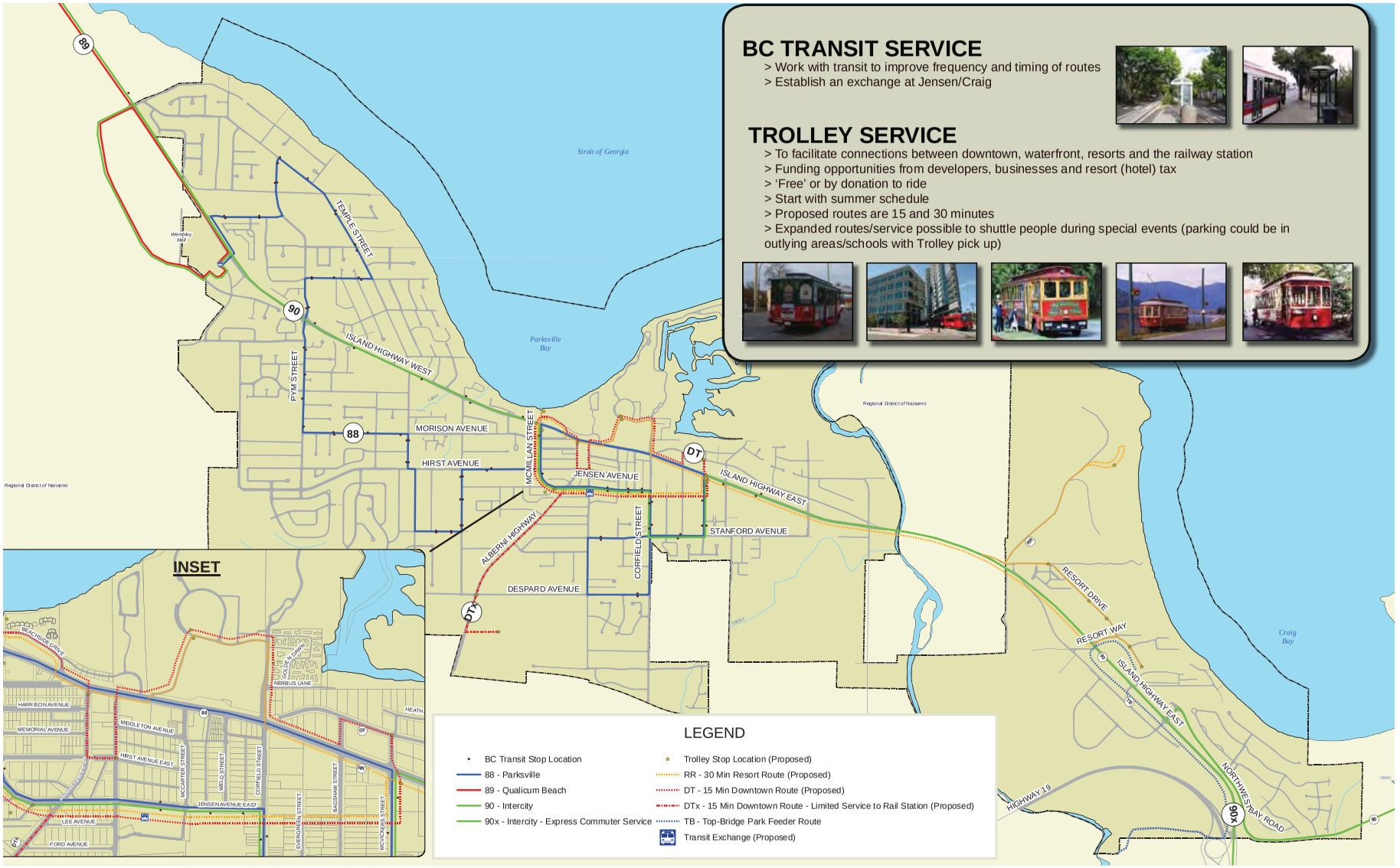
Pros:

> Opportunity for gateway features
> Increased area for landscaping
> Reduced conflict points
> Eliminates crossing conflicts
> Lower operational speeds
> Yield signs result in smaller gap acceptance
> Medians offer pedestrian refuge
> Less maintenance than a signal
> Pedestrians & cyclists separate from traffic
> Optimal delay for all time periods
> Lower emissions
> Higher vehicle capacity per lane

Cons:

> Unfamiliar to many drivers
> No signalized preemption control
> No opportunity for audible signal
> Coordinated signals handle more traffic
> Hard and soft landscaping costs
> Longer travel distances
> Signals have more high-end capacity

Proposed Transit Network Map



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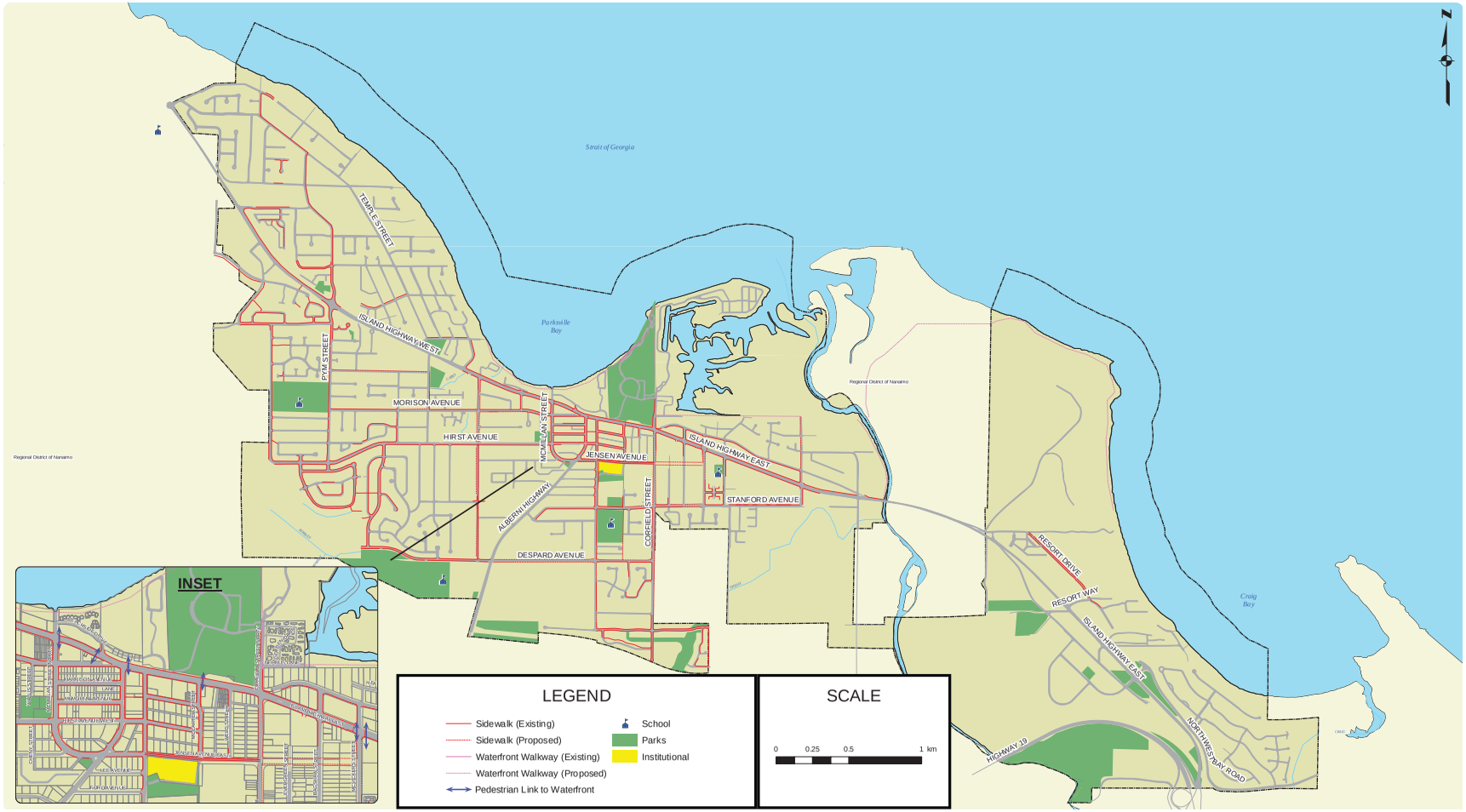
City-wide Transportation Master Plan

PROPOSED PEDESTRIAN NETWORK MAP



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