



## PERSPECTIVE ON TRANSPORT 2040

JANUARY 3, 2008

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### Summary

- The movement of goods and services and people into, out of and within the Lower Mainland by all modes is of vital interest to The Vancouver Board of Trade and its members.
- Businesses and other organizations not only need to be concerned with the transportation needs of their operations, but also with the needs of their employees, their customers, the community as a whole, and those who visit the region.
- The Lower Mainland transportation system in 2040 will need to be efficient in terms of service and cost. It will also need to be environmentally sound, including substantial limitation of its discharge of greenhouse gases.
- This perspective on Lower Mainland transportation in 2040 is limited to those aspects of transportation where TransLink plays a major role.
- The significant increases in the population and residential density of the region through the period to 2040 will increase the pressure for greater capacity in the transportation system while, at the same time, minimizing additional loads on already overcrowded roads and bridges.
- The historical tendency towards sprawling development in some parts of the region must be resisted and reversed.
- Land use planning increasingly should seek to combine commercial, residential and institutional uses that are complementary and are likely to shorten trips by auto or transit, and encourage trips by walking or cycling.
- Dense mixed nodes connected by bus and rapid transit should be a conscious objective of a unified approach to land use planning in the Lower Mainland.
- There is a need to systematically and consistently develop additional rapid transit capacity to form an integrated system such as is found in major cities of the world.
- There is a similar need for growth in the bus system and its continued coordination with the rapid transit network.
- The capacity of the road system must continue to increase in light of the fact that automobile use will remain a large part of regional transportation.

- There also is a need to continue to plan and implement measures to ensure that the movement of goods and services is efficiently accommodated.
- The expansion of road capacity should focus on strategic components that have high potential to improve transportation productivity.
- Marginal road pricing using automated tolling varied by time and demand for road space increasingly should be used to moderate congestion on major road links.
- The feasibility of using rail and/or barge/short-sea shipping to reduce goods movement by road should be systematically considered.
- The regional transportation planning process should consider the potential for increased movement of goods by new rail capacity linking the Lower Mainland with areas of the United States west coast.
- A time horizon of longer than 40 years is needed in arriving at key transportation decisions such as the protection of transportation corridors and the long-run design of the regional transportation system.
- Key factors will include the growing cost and shortages of liquid and gaseous hydrocarbon fuels, and the strain on the provincial electrical system to provide an increasing proportion of the energy requirements for transportation.
- Downtown Vancouver will continue to be the metropolitan core of the region. From the point of view of transportation efficiency and the effective utilization of rapid transit lines, this reality needs to be recognized and taken into account in transportation planning.
- At the same time, the transportation needs of other parts of the region must be better recognized and catered to. The woefully inadequate road and transit system in some areas south of the Fraser River such as Surrey must be upgraded. The Northeast part of Metropolitan Vancouver must be provided with improved transit as committed to in the regional strategic plan and as currently being planned and negotiated. Future population growth is anticipated to be concentrated in these areas, and transportation planning must take that into account.
- Convenience and efficiency of service in terms of travel times are key considerations for the vision of regional transportation in 2040. Substantial growth of ridership for public transit will depend on this.
- Regional land use and related planning also must support the major transportation facilities that link this region with other parts of the world. In particular, land use to support the operation of port facilities must be a priority.
- The new regional growth strategy being formulated must take into account the vision for Lower Mainland transportation being prepared by the Provincial Government and also take into account the corresponding planning by TransLink.
- Land use and transportation planning must go hand-in-hand, so that the resulting combination produces an optimum result.
- A key problem affecting the ability to achieve an efficient and effective transportation system in 2040 will be the availability of the large amounts of capital and operating funds required for that. There is a pressing need for the federal government to continue to increase funds available to cover the costs of expanding the transportation systems in urban areas, which are the economic muscle of much of the country.

- One possible funding source for future rapid transit development could come from development around and over rapid transit stations through the sale of air rights or through the use of public-private partnerships (P3s) where appropriate.
- The continued use of P3s, where appropriate, will help to provide private sector equity for capital transportation projects while shifting risk from the public sector.
- The Lower Mainland has the advantage that if land transportation becomes increasingly expensive, larger amounts of freight can be moved by coastal transportation. Planning for transportation with a 2040 horizon needs to take this into account, including the preservation of land and water access sites to support this use.
- A major risk to the regional transportation system is the probability of a major earthquake affecting this area. This risk demands that work continue to improve older transportation infrastructure in terms of its resistance to earthquakes. In addition, work should proceed on contingency plans to deal with major failures.



## PERSPECTIVE ON TRANSPORT 2040

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### **1. Introduction**

The Vancouver Board of Trade for many years has closely followed regional transportation as a vital issue affecting its members and the community at large. Through the work of our Regional Transportation Task Force, deliberations and decisions of our Executive Committee and Board of Directors and our involvement with other organizations, we have studied and endeavoured to influence the organizations and actions vitally affecting transportation in Metropolitan Vancouver and beyond. Thus, we are in a position to readily accept the challenge of providing input to the development of a vision for the Lower Mainland transportation system extending to a 2040 horizon.

The contents of this submission are being reviewed and we believe will be endorsed by our Regional Transportation Task Force, our Executive Committee, and our Board of Directors.

### **2. Our Stakeholders and the Scope of Our Perspective**

On behalf of our 5,600 members and their stakeholders, we are pleased to submit this perspective.

While our members tend to be concentrated in the City of Vancouver, many are located elsewhere in the Lower Mainland and the operations of many extend throughout the region, the province and beyond. In addition, the regional transportation system tends to be very important to the travel of our members' employees and the movement of our members' customers. The movement of goods and services and people into, out of and within the region by all modes is thus of vital interest to The Vancouver Board of Trade. In addition, The Vancouver Board of Trade has a long history of concern for the community at large. These considerations underlie the substantial efforts we have made to constructively influence the regional transportation system over the years, and underlie this perspective on Transportation 2040.

We congratulate TransLink and the provincial government for undertaking the preparation of a vision for Lower Mainland transportation in 2040. However, we encourage an even longer horizon for key transportation decisions such as the protection of transportation corridors and the long-run design of the regional

transportation system. One of the reasons for the success of transportation systems in some of the world's great cities has been visions that extend for a century or more. In some cases that vision remains valid after an even longer period of time. The Lower Mainland has the potential to become a very much larger urban area in terms of population over the next century and beyond, with corresponding increases in transportation requirements. Accordingly, in the next few years a corresponding longer-term vision for transportation development should be undertaken.

### **3. Scope of TransLink Plan and This Perspective**

This perspective on Lower Mainland transportation in 2040 is limited to those aspects of transportation where TransLink plays a major role. Thus, this perspective only peripherally addresses the rail, marine and air transport modes except to the extent that those modes interact with transportation functions where TransLink is a key player. An example of this is the major commercial transportation network that is vital to the efficient functioning of those other modes.

### **4. A Vision of Success: The Ideal Transportation System Through the Year 2040**

The ideal transportation system for the Lower Mainland in 2040 will efficiently serve the projected population of 3.8 million, the hundreds of thousands of businesses, not-for-profit and other organizations in the region, the millions of persons who visit the area annually, and the many stakeholders outside the region that depend upon transportation here to support their activities.

The economy of Western Canada as a whole is greatly dependent upon transportation in and through this region. Similarly, the residents of the rest of British Columbia tend to be substantially reliant on our transportation system. All of these interests are vitally affected by transportation in the Lower Mainland, and all are important to The Vancouver Board of Trade and our members.

The Lower Mainland transportation system in 2040 will need to be efficient in terms of service and cost. It will also need to be environmentally sound, including substantial limitation of its discharge of greenhouse gases.

In the interim, the system will need to expand and evolve in response to changing needs and changes in key determinants. Among these will be the cost, availability and places of residence of employees and the locations of employers. Other key factors will include the growing cost and shortages of liquid and gaseous hydrocarbon fuels, and the strain upon the provincial electrical supply system to provide an increasing proportion of the energy requirements for transportation.

It is anticipated that the residential density of the region will increase significantly through the period to 2040. This will increase the pressure for greater capacity in the transportation system while at the same time minimizing additional loads on already overcrowded roads and bridges. The ability of the road system to accommodate additional buses will be surpassed on many of the key arteries during peak periods. Growing congestion will increasingly frustrate commuters, drive up costs of doing business in the region and cause businesses to be located away from congested areas. These factors will be among those driving a need to systematically and consistently develop additional rapid transit capacity to form an integrated system such as is found in

major cities of the world like Paris, London and New York. There also will be a need to increasingly plan measures to ensure that the movement of goods and services is efficiently accommodated.

With a much higher proportion of seniors in the regional population, there will be a growing need for accessibility in the transportation system. The physical ability of this part of the population will need to be accommodated, and their relatively lower per capita income is also likely to motivate them to use transit. These factors will contribute to a greater load on the transit system and transportation services for persons with disabilities. In addition, managerial level personnel have indicated a willingness to use rapid transit (such as SkyTrain and Westcoast Express) where it provides a viable alternative to the use of the automobile.

There are, and will be, forces acting to increase the importance and prevalence of neighbourhood-centred communities in the region. This form of development favours more efficient transportation. Thus, the continued development of bus and rapid transit capacity will be important.

Downtown Vancouver will continue to be the metropolitan core of the region. From the point of view of transportation efficiency and effective utilization of rapid transit lines, this reality needs to be recognized and taken into account in transportation planning. The hub and spoke system that is emerging will need to be enhanced. Regional transportation planning should proceed in light of the results of the Metropolitan Core Area Study undertaken by the City of Vancouver – this is now in its final phase.

At the same time, the transportation needs of other parts of the region must be better recognized and catered to. The woefully inadequate road and transit system in some areas south of the Fraser River such as Surrey must be upgraded, while land use needs to be improved to make better use of the limited areas available for residential, business and institutional expansion. The Northeast part of Metropolitan Vancouver must be provided with improved transit as committed to in the regional strategic plan and as currently being planned and negotiated. Future population growth is anticipated to be concentrated in these areas, and transportation planning must take that into account.

The challenges outlined above are set in a context where key aspects of transportation performance in the region generally have been deteriorating. In the past decade the transportation system has entered a critical phase. The average speed of traffic has declined significantly. Vehicles moving goods and services encounter delays even in the middle of the day, and commuters experience increasing congestion. Transport Canada has estimated that the cost of congestion in the region already costs residents and businesses between \$700 million and \$1.2 billion annually, with more recent estimates suggesting that the figure has increased to \$1.5 billion. Thus, the vision for regional transportation in 2040 and the actions required to achieve it need to be infused with a sense of urgency to turn around the historical momentum. The progress in regional transportation improvements in this decade has been significant, but much more remains to be done.

## **5. Transit versus Road Use and Capacity**

While public transit capacity must be substantially upgraded, by 2040 the majority of commuting will still be by private vehicles. A part of the reason for this is that within the constituent municipalities of the region, residential density and the location of commuters' destinations already dictates the use of private vehicles and makes the provision of public transportation prohibitively costly. While that trend might change in terms of new developments, the existing situation will continue to dictate the use of private vehicles.

In addition, those most likely to use public transit are students, persons with low incomes, and seniors. As income rises, individuals are more likely to use private vehicles for travel to work or for other purposes. An exception to this is where rapid transit/passenger rail can provide comfortable, convenient, efficient service, such as SkyTrain and the West Coast Express. Managerial level personnel have indicated a willingness to use rapid transit systems where they provide a viable alternative to car usage.

Convenience and efficiency of service in terms of travel times are key considerations for the vision of regional transportation in 2040. Substantial growth of ridership for public transit will depend on this. Unless transit can compete favourably in these dimensions, increases in the modal split achieved by transit will be limited.

Even with remarkable growth in transit use, there will be a strong need for continued improvements to the road system. Goods and services by their nature make it imperative that, to a large extent, they move by road. The nature of the region with its many water features, green areas and existing residential densities will continue to dictate high levels of road traffic. Population growth will drive up road congestion.

To the extent that other modes can be used to relieve road congestion, this should be pursued. It may be that rail or barge/short-sea shipping could be used to some extent to move goods that otherwise would be moved by road. The feasibility of this will need to be considered systematically.

There is intense north-south movement of goods by truck across the Canada-U.S. border through customs ports in the Lower Mainland. To a substantial extent, this involves shipments to and from Washington (state), Oregon, California, and Mexico. As motor fuels become increasingly expensive, there may be an economic rationale to substitute shipments of goods by rail along this corridor. The TransLink planning process should consider the significance of that to the regional transportation system.

Contrary to supposed expert opinion, it will be necessary to continue to expand road capacity. "Expert" voices in the region tend to conveniently overlook a basic truth stated by one of their global gurus. Urban theorist Anthony Downs in a visit to Vancouver earlier in 2007 was quoted as saying "You will have to expand your road capacity." He based this statement on anticipated population growth, rising incomes, scattered employment locations and experience elsewhere in the world.

The expansion of road capacity should focus on strategic components that have high potential to improve transportation productivity. There are major roads experiencing

congestion for much of the day and contributing substantially to the cost of congestion cited earlier in this document. For example, the Trans-Canada Highway including the Port Mann Bridge is a key candidate based on this criterion. The planned South Fraser Perimeter Road is another, with substantial benefits to commercial transportation and the port function in the region.

Marginal road pricing using automated tolling varied by time and demand for road space increasingly should be used to moderate congestion on major road links. This will tend to stimulate more efficient use of the road system as a whole, including more use at times when there is excess road capacity. This measure will also tend to offset government subsidies of roads, and will help to encourage increased use of transit.

As a part of the long-term future for the transportation system in the Lower Mainland, the development and operation of the Major Road Network by TransLink and the corresponding development and operation of highways and bridges by the provincial government must continue. The rehabilitation and maintenance of this network will need to continue indefinitely. This infrastructure carries most of the region's commuter, transit and truck traffic. It is vital to the airports, port facilities and rail lines that serve to link this region and all of Western Canada with other parts of the world. It is equally vital to the very large flow of people and goods between this region and the United States, a flow that is essential to the regional and provincial economy.

## **6. Land Use and Transportation**

As already noted, land use is critically linked to transportation. The continued densification of residential land use will place increased demands on regional transportation. Conversely, land use provisions must complement and support the effective development and efficient operation of transportation facilities. The historical tendency towards sprawling development in some parts of the region must be resisted and reversed to increase the efficient use of land and facilitate the efficiency of transportation in the region.

This applies in the sense of the need to have densely developed nodes in the Lower Mainland joined by rapid transit. That has been a key concept in terms of planning of the region for several decades. As part of the development of land use throughout the Metro Vancouver area, special attention should be paid to setting aside land for rapid transit corridors. This would help guide the planning for more dense commercial and residential use around stations.

Land use planning should increasingly seek to combine commercial, residential and institutional uses that are complementary and are likely to shorten trips by auto or transit, and encourage trips by walking or cycling. The practice of developing subdivisions in patterns almost certain to require automobile travel must be opposed. Similarly, dense developments dedicated to residential use only need to be modified by insistence on inclusion of major components of other uses. As already noted, dense mixed nodes connected by bus and rapid transit should be a conscious objective of a unified approach to land use planning in the Lower Mainland.

Regional land use and related planning also must support the major transportation facilities that link this region with other parts of the world. In particular, land use to

support the operation of port facilities in the region must be a priority, particularly the preservation of land for port-related use. It is very important that residential and other incompatible uses not be allowed to infringe on land that will be required for the effective and efficient functioning of marine transportation. Already there are too many examples where residential development and associated parochial interests have been allowed to alienate land that in the larger scheme of things should be available to support port development and operation. Transportation corridors must be protected for future more intense use, while land suitable for supporting port uses needs to be preserved for that purpose.

A new regional growth strategy is being formulated to replace the existing Livable Region Strategic Plan. In this process, the vision for Lower Mainland transportation being prepared by the Provincial Government must be taken into account together with the corresponding planning of TransLink. Similarly, transportation planning must consider established and proposed land use plans. Land use and transportation planning must go hand-in-hand, so that the resulting combination produces an optimum result.

## **7. Financing Public Transportation**

A key problem affecting the ability to achieve an efficient and effective transportation system in 2040 will be the availability of the large amounts of capital and operating funds required for that. Municipalities, regional government and the regional transportation authority are limited in the financial sources directly available to them, and have large financial challenges to renew infrastructure. Property taxes are a limited and difficult source.

The provincial government does have other revenue sources that it is making available for transportation financing, but increasingly will be strained financially to cover the costs of the public healthcare system. There is a pressing need for the federal government to continue to increase funds available to cover the costs of expanding the transportation systems in urban areas, which are the economic muscle of much of the country. This is particularly true for the major cities of Canada that have passed the critical point where congestion outstrips the capacity of the road system to handle traffic efficiently. Those communities are faced with the need to establish or expand grade-separated rapid transit systems and commuter rail systems capacity over the long term.

One possible funding source for future rapid transit development could come from development around and over rapid transit stations through the sale of air rights or through use of Public Private Partnerships (P3s) where appropriate. Another funding source would be the continued dedication of the GST rebate on fuel sales from the federal government to transit and rapid transit projects.

As demonstrated with major transportation infrastructure projects under construction in Greater Vancouver, the use of P3s helps to provide private sector funding for capital transportation projects while shifting risk from the public sector. The continued use of this approach will ease the burden of financing large public transportation projects.

## **8. Energy for Transportation**

Over the years to 2040, the cost and availability of liquid and gaseous hydrocarbon fuels will change a great deal. The availability of crude oil is on the verge of declining at the same time that there is very likely to be increased demand for products refined from oil, principally gasoline and diesel fuel. Natural gas is likely to be in increasingly short supply by the end of the period. Substantial increases in the prices for these fuels have occurred and are in prospect, and their use might eventually be directed to needs that cannot reasonably be met by other means. A key use of this type would be inter-city transportation, and for natural gas and substitutes a further key use would be the heating of homes and other structures.

On the other hand, transportation within an urban area increasingly will need to utilize electrical energy. The most efficient form of this utilization will be through the electrical grid serving the city.

In the medium term this appears likely to involve plug-in hybrid vehicles, which have a combination of an internal combustion engine and electrical batteries. The latter would be re-charged in part overnight through connection of the vehicle to the regional electrical system during hours when other electrical uses are minimized.

In the longer-run, as gasoline and diesel fuel become increasingly scarce and expensive, direct connection to the grid is likely to be the remaining feasible means of providing a great deal of the energy required to power urban transportation. Urban transportation planning and the planning of electrical energy supplies must take account of the likelihood of this.

In the shorter-term, increasing motor fuel prices may not substantially reduce fuel consumption. In European countries where the price of motor fuel is very much higher than in North America, per capita motor fuel consumption is only modestly lower. Given the need for private vehicles for commuting and for general transportation in the cities of developed countries, it is not surprising that fuel consumption is resistant to large per capita reductions in the face of large increases in price.

The Lower Mainland has the advantage that if land transportation becomes increasingly expensive, larger amounts of freight can be moved by coastal transportation. Barges towed or pushed by tug boats are a very energy-efficient means of moving cargo, and are already extensively used in the Lower Mainland as well as between this area and other marine locations. In cases where transportation in this urban area is not very time sensitive, the extensive network of waterways will lend itself to increased use for transportation. Planning for transportation with a 2040 horizon needs to take this into account, including the preservation of land and water access sites to support this use.

## **9. Changes Complementary to Rapid Transit and Commuter Passenger Trains**

Rapid transit as well as commuter passenger trains on conventional rail lines appear likely to see substantial further development in this region during the period to 2040. As these types of transit projects continue to be developed, they no doubt will be complemented by park and ride capacity as well as well as convenient connecting bus service.

Given the scenarios outlined above, there will likely be a need for retrofitting park and ride facilities to complement existing transportation capacity, such as the North Shore terminus of the SeaBus. New and existing park and ride facilities associated with rapid transit/commuter rail lines will offer potential for denser development at terminals, incorporating commuter parking and local bus service with commercial, residential and institutional structures.

### **10. Major Risk to the Regional Transportation System**

A major risk to the regional transportation system is the probability of a major earthquake affecting this area. That event could be the anticipated major slip of tectonic plates off the west coast of the state of Washington and Vancouver Island. Alternately, it could be an earthquake along a presently unknown fault closer to or in the Lower Mainland, a probability suggested by a knowledgeable representative of the Geological Survey of Canada.

The impact of a major earthquake could be disastrous to the transportation system of the Lower Mainland. Key older bridges could fail, such as the Lions Gate Bridge. In addition to preventing the flow of road traffic that customarily uses the bridge, it could collapse and paralyze the movement of marine traffic into and out of Vancouver's inner harbour. In turn, that would have a catastrophic effect on a good deal of the economy of Western Canada. A similar effect would occur if the aging New Westminster rail bridge were to collapse from the effects of an earthquake.

This risk demands that work continue to improve older transportation infrastructure components in terms of their resistance to earthquakes. In addition, work should proceed on contingency plans to deal with major failures such as those indicated above. For example, if the Lions Gate Bridge were to collapse and block the First Narrows to marine traffic, how would the wreckage be removed to restore passage? Similarly, how would rail service across the Fraser River be restored in the event of the collapse of the New Westminster rail bridge? What can be done now to stimulate progress towards the replacement of the latter link? What similar situations exist where it is urgent that existing transportation links be upgraded further, and their potential loss be addressed?

### **11. Key Challenges and Opportunities Facing the Lower Mainland Transportation System**

#### **a) The Need for Increased Rapid Transit and Commuter Rail Service**

As outlined earlier in this document, the region is at a critical point in terms of road congestion. Grade separated rapid transit and commuter rail service needs to be expanded expeditiously, subject to the requirement for effective utilization.

#### **b) Increased Bus Service**

Bus service needs to be expanded continually in a strategic pattern calculated to complement rapid transit and reduce the use of private vehicles. Again, effective utilization needs to be a key consideration, helping to optimize economic efficiency.

#### **c) Improved Capacity for the Movement of Goods and Services**

The movement of goods and services is vital to the economic survival and success of the region. This is the lifeblood of commerce, is essential to maintaining and

growing the regional economy and employment, is essential to the functioning of businesses and the servicing of the population. This is also essential to the functioning of the air, marine land and road links to the rest of the province, the rest of Canada, and the rest of the world. As the region grows and as it expands its role as the key gateway on Canada's Pacific Coast, there needs to be a corresponding increase in effective and efficient movement of goods and services within this region and between this region and other areas.

**d) Strategic Expansion of the Regional Road Network**

To accommodate the movement of goods and services, the increased bus capacity and the increased use of private vehicles, all related to population increases and increased economic activity in the region, there is a need for strategic expansion of the regional road and bridge network. A substantial amount of work is underway on the network, and a good deal more will need to be done in the near future and over coming decades. The planning and improvement of the network also must take into account the needs for improved capacity in road links to other areas, including through ferry terminals and across the boundary with the United States.

**e) Improved Land Use Planning and Development**

In the light of the challenges that have been outlined in previous sections of this report, it is important that land use in the Lower Mainland unfold to support efficient use of the limited amount of land available for development, and at the same time support efficient development and use of the regional transportation system. The decades old prescription of dense nodes linked by efficient transportation and particularly rapid transit remains a key long term goal. At the same time, land required for transportation corridors and to support the port function must be preserved for those purposes in the face of voracious demand for residential use.

**f) Improved Provision for Transportation Financing**

The continued development of a transportation system to meet the emerging needs of the Lower Mainland will require improved provision for financing the development and operation of the system. While local and regional sources must continue to bear a reasonable share of the cost, the property taxation burden should not continue to expand substantially. The provincial government increasingly will be challenged to provide funding for other services given the demands of the health care system. The federal government must be involved significantly in helping to ensure the future of the regional transportation system in this area so important to Canada.

**g) Increased Utilization of Private Sector Resources**

Increased utilization of private sector resources represents an opportunity to ease the burden of financing public transportation projects while transferring risk from the public sector. This needs to be pursued through the continued utilization of public-private partnerships, and through other innovative ways of harnessing the flexibility of the private sector where appropriate. Competition and the associated stimulation of productivity should involve the private sector both in the creation and operation of public transportation projects and services.

**h) Provision of Energy for the Transportation System**

The supply of energy for regional transportation will become increasingly important during the years leading up to 2040. While it will not be of great importance at the beginning of the planning period, it will be of extreme importance by the end of the period. However, in order to meet the need for electrical energy to power the regional transportation system, planning needs to be undertaken immediately towards meeting that need three decades from now. There is a significant risk that the time required to plan, permit, finance and develop the electrical power sources and associated transmission lines will exceed the years available.

It is ironic that the growing scarcity of liquid and gaseous hydrocarbon fuels increasingly will result in the reduction of greenhouse gas emissions from their combustion for transportation energy. On the other hand, the sources of electrical energy for future transportation needs could offset that reduction.

**i) Preparation for Potential Major Earthquake**

As outlined earlier in this document, there is a need to do what can be done to prepare the regional transportation system for a major earthquake. There is a significant probability that a strong earthquake will impact this region within the planning time frame. Upgrading or replacement of existing key transportation structures in the region needs to continue or to proceed in the light of this risk. Planning also needs to be in place to help expedite recovery of the transportation system from a substantial earthquake after the event.

**12. Recommendations**

The strategies that The Vancouver Board of Trade recommends to meet the challenges facing the Lower Mainland in relation to regional transportation are noted in the course of this document. As outlined towards the beginning of this submission, the transportation needs of our stakeholders are varied and broad, and generally are synchronized with the generalized needs of other stakeholders in the region. Businesses and other organizations not only need to be concerned with the transportation needs of their operations, but also with the needs of their employees, their customers, the community as a whole, and those who visit the region. The interdependency of the many facets of the economy, the population of and visitors to the region and society as a whole is clear in the case of transportation as in so many other dimensions.

In the body of this document we have not necessarily distinguished between those strategies that might be pursued by TransLink versus those that might be pursued by other organizations. A great deal of what needs to be done will require a concerted effort by a number of organizations, including TransLink, municipal and regional government, the provincial government and the federal government. In some cases one or another entity is the obvious lead, and in other cases a combined effort is required. Business and not-for-profit organizations and other stakeholders will have roles to play in a different way, principally advocacy.

A case in point is the rapid transit project now known as the Canada Line. That is nominally a project of TransLink. However, from a practical point of view, a combined effort of many stakeholders was required to reach the point where the initiative proceeded. A coalition of interests was required to achieve a positive decision, and

collaboration of several levels of government and the private sector was needed to achieve the financing and organization needed for the project. Responsibility for the implementation rests with TransLink, its subsidiary created for the project, and the successful private sector partner constructing the line.

Each one of the key challenges we have outlined can be analyzed in terms of the organizations that need to be involved, and those that should have primary responsibility. Most of these must include TransLink as a key player, but most also will require substantial involvement of various levels of government and other organizations, principally organizations controlled directly or indirectly by governments.

### **13) Selection of Priorities**

It would be simplistic to view the transportation needs of the region as a linear set of priorities that can be set in a simple order. The situation is complex, and priorities are inter-related. For example, rapid transit is needed to relieve pressure on roads, which in turn facilitates the movement of goods and services. Immediate priorities relate to rapid transit, bus and road/bridge improvements, but in the longer run energy for transportation is likely to be the most pressing concern. Disparate aspects such as land use planning and earthquake preparedness can be pursued simultaneously. Priorities in terms of expenditures for specific projects can be considered and decided upon. However, for the most part that is at a level of detail that is beyond this document and the generalized vision for regional transportation in 2040.