PROPOSED ACTION: Introduce a Trip Reduction Program (TRP4BC) that will be mandatory for all large employers and major trip generators

The proposed program will:

- ✓ Reduce distances traveled [VKT]
- ✓ Shift travel to more efficient modes
- ✓ Reduce transportation emissions and maintenance costs
- ✓ Improve the quality of citizens' travel choices, which will make travel more safe, healthy, affordable and equitable
- ✓ Synergistically boost other initiatives to integrate active transportation, affordable housing and land use planning
- ✓ **Mobilize all large employer organizations to take *actions that will rapidly and favourably impact every citizen in the province*, while improving the economic sustainability of these organizations.**

Summary/ context

- *Clean BC Roadmap to 2030* has set targets to reduce VKT and increase mode share – significantly and rapidly.
- The UN IPCC's March 2023 *Synthesis Report* says, "[Carbon] Emissions need to go down now, and be cut by almost half by 2030… [The Report] underscores the urgency of taking *more ambitious action*… *Transformational changes* are more likely to succeed where there is trust, where *everyone works together*…."
- **There is an opportunity to increase B.C.'s scope and pace ["more ambitious action"] on VKT and mode shift, by requiring and coordinating action by major players in our society, namely large employers and major trip generators.** These organizations dictate or significantly influence the commuting practices of half of BC's workforce, as well as the majority of trips by students, customers, patients, tourists and local delivery vehicles.
- **Metro Vancouver** is officially advocating for BC to require all large employers and major trip generators to implement trip reduction plans [TRPs] that would reduce VKT and increase walk-bike-transit mode share. *[Clean Air Plan 2021]*
- A decade of wide-ranging research and innovative development by BC consultants and non-profits has culminated in a blueprint proposal for an

effective and robust Trip Reduction Program for BC *[provisionally dubbed TRP4BC]*.

- The proposed TRP4BC will build on a foundation of proven practices, adding modern innovations in operations and technology, in a trust-building "everyone works together" approach, as advocated by the UN IPCC.
- Per the blueprint, participating organizations (~8,700 large employers and major trip generators) will:
    - measure and publicly report on an annual basis, the current VKT, mode share and CO2e burden associated with their:
        - employees' commuting
        - clientele's travel and
        - local delivery.
    - report on their required 'best efforts' to reduce VKT and boost active mode share. *[Note: this is a benchmarking & transparency approach rather than prescriptive program delivery.]*
- TRP4BC will provide organizations with complete toolchests (including xlsm and web apps and explainer videos) and know-how for assessing their situations, and for implementing action steps (from over a dozen tactics) that will improve the quality of each employee's commuting choices. *[See www.vimeo.com/687265823.]*
- **The consortium believes TRP4BC could have a first phase launch with health and education sector public sector organizations (PSOs) as early as autumn 2023, operated by a consultancy reporting directly to the Office of the Premier.**
- A report from UVic's Environmental Law Centre opines that this first phase of TRP4BC could be authorized under the *Climate Change Accountability Act* by Cabinet regulations. The ELC also opines there are no *Charter* liabilities with the proposed initiative. *[See link to this report in Appendix 1.]*

Proposed timing

- With the benefit of the extensive development work already completed and field-tested, the consortium believes that TRP4BC's first phase (for health and education PSOs, with the core tactics) could be rolled out as soon as six months after contract signing.

- Subsequent phases would increase the number of tactics fully supported by apps, other tools and info, and expand the mandatory involvement of large employer organizations beyond the PSO sector.

Benefits and co-benefits

- Significant reduction in VKT has been demonstrated by various TRP initiatives in other jurisdictions that have focussed on a single or few tactics. However, the synergistic effect of our combined 12+ tactics (and new technology, and collaborative support approach) cannot be modelled with any statistical certainty.
  Yet, one can consider these documented examples:
  - Seattle Children's Hospital cut its staff's single-occupancy-vehicle [SOV] commuting use from 78% to 33%. Plus it saved tens of millions of dollars when it could repurpose excess parking areas into sites for expanded facilities.
  - Key Bank cut its staff members' average commuting VMT at participating branches by 17% within 15 months, using only the proximate commute tactic – with zero extra cost to the bank while reducing staff turn-over.
  - Our xlsm app calculated that distance-reducing peer-with-peer location swap potential exists for over half of RBC's South Vancouver Island staff.
  - School active travel programs can quickly reduce parent chauffeuring by over 15%, but are only in place at a few dozen of BC's 1,900 schools.
  - Analyses of StatCan's commuting flow dataset reveals that voluntary peer swaps could shorten commutes for >17,500 teachers and assistants across Metro Vancouver school districts.
  - At many US university campuses, SOV drive rates are over 70%; University of Washington's TRP actions pushed its rate to 19%.
- Noting the above examples, we suggest that **a reasonable projection for TRP4BC's impact on overall commuting VKT would be a decrease of 10 to 15%. As well, there should be similar impacts on clientele travel and local delivery VKT.**

- Every organization's total commuting VKT, mode share and CO2e burden data – and best efforts reporting – will be available to **government planners for planning purposes**, to the public for employment and marketing transparency, and to all stakeholders for ESG consideration.
- Published research demonstrates that reducing long commutes could help alleviate heightened worker stress, unhappiness, sedentary living (lack of exercise), obesity, pollution exposure, low productivity, job dissatisfaction, illness and absenteeism, domestic conflicts, etc., etc. *[See our annotated bibliography, listed in Appendix 1.]*
- That research suggests that **employers can anticipate a reduction in their HR costs associated with recruiting, motivation, retention, absenteeism, mental and physical sickness, productivity, accuracy, service quality and accidents.** ["Our staff shortages are costing BC's health system billions annually" – per a health authority executive. Annual staff turnover in the healthcare sector was >30% pre-COVID.]
- Employers can also expect a reduction in facilities costs (parking, office space, etc.) – more than covering any comparatively minor investments in secure bike storage, vanpool memberships, etc.
- **Individuals and families will experience lower costs, more quality time, better mental and physical health, less air pollution and better safety.**
- TRP4BC has been designed to support the participation of organizations' employees and clientele in other government initiatives, boosting those programs' reach and effectiveness.

Budget

- **We are projecting ~$10 million per annum in operating costs to support the ~8,700 BC organizations that employ half of BC's workforce.** This budget cannot be refined until we have authority to negotiate the multi-million-dollar cost for API access to the GoogleMaps dataset – we hope to obtain a favourable rate through Google.org (Alphabet's philanthropic arm). Note: TRP4BC expects to cover the cost centrally for the apps' API access – each organization will not need to create their own account.
- We recommend that the set-up, operations and continuous technical development be outsourced to a consortium of BC-based consultancies and non-profits, that would report directly to the Office of the Premier. Trelawny

Consulting Group Ltd. is 'uniquely qualified' to lead and provide the technical and logistical expertise through the first years of operation.

- Because participating employer organizations can anticipate cutting their overall operational costs, we foresee that no specific financial incentives from the Province to the organization will be required or recommended.
- Some examples of **indirect savings**:
    - BC citizens could be saving over $200 million annually on reduced vehicle ownership. [$10k/family X 20,000 families]
    - Cutting VKT and boosting active travel will reduce traffic congestion which has been estimated to have a near-billion-dollars-per-year chokehold on BC's economy.
    - Reducing VKT will reduce air pollution impact on asthmatics, and the associated healthcare costs.
    - Reducing VKT will reduce road maintenance costs, especially important with the ever-increasing number of heavier EVs.
    - Employers will realize reduced operating costs for HR and facilities, thus increasing their economic sustainability and profitability [and tax payments].
- *See www.vimeo.com/699126615 for further discussion of impacts*.

Barriers/ program description

- Implementing any organizational change (such as addressing staff commuting and clientele travel will be) typically requires three factors: **authority/requirement, tools & knowledge**, and **resources** (usually financial).
    - **Lack of authority and requirement was consistently cited as an absolute barrier in our key informant interviews** with executives in the health, education, financial and other sectors. Although we observed widespread eagerness for taking action on commuting, clientele travel and delivery, such change within larger organizations requires policy-level direction. **Making TRP4BC participation mandatory** – as advocated by Metro Vancouver – **is therefore essential**. *[In our program reviews across many jurisdictions in North America and beyond, we observed that TRPs that are not mandatory have had minimal effect on VMT and mode share.]*
    - **Determining what to do and how is the next barrier to remove**, to ensure actions taken are effective and persistent. TRP4BC will

provide apps, explainer videos, tutorials, collaboration opportunities, a moderated wiki of crowdsourced resources, translations, productivity tools and more, for over a dozen tactics proven to cut VKT and boost active mode share. Our apps identify not only the most appropriate tactics to implement, but also which tactics would lead to little benefit – to maximize use of resources and goodwill. The apps provide detailed cost/benefit analyses right down which actions will improve travel choices for specific employee subsets.

  - Our analyses suggest that **financial resources should not be a barrier**. Because participating employer organizations can anticipate cutting their overall operational costs, no specific financial incentives from the Province should be required or be recommended at the outset. TRP4BC will be closely tracking progress by sector and region, and will be in a position to recommend a strategic infusion of incentives if appropriate.

- The TRP4BC program blueprint envisions supporting multiple tactics for improving the quality of travel choices for employees, students, patients, customers, tourists and delivery. It will also facilitate collaborations. *[See Appendix 2 and www.vimeo.com/687265823]*

Affordability and equity considerations

- Lower paid workers are disproportionately women and BIPOC; 56% of women work in the lowly-paid 5Cs (cashiering, catering, caring, clerical & cleaning); 42% of personal support workers are non-white.
- The working poor spend a higher percentage of wages on commuting – this compromises their affording food & rent for themselves and their families.
- Some work multiple part-time jobs – requiring multiple commutes.
- Lower paid workers can't afford EVs, so will be paying increasingly high gas prices, carbon taxes & mobility fees for decades… unless …
- unless… a TRP4BC supports large employers to correct unnecessary, unwanted, unhealthy and unfair commuting and other travel.

Authority (legislation, regulation, ministry, agency)

- The BC Government has established targets to reduce light-duty VKT by 25%, and approximately double walking, bicycling and public transit mode share, by 2030.

- Metro Vancouver and independent transportation experts have identified a mandatory trip reduction program as an impactful, cost-effective and equitable way to move expeditiously toward those targets.
- UVic's Environmental Law Centre has identified the *Climate Change Accountability Act* as existing legislative authority for introducing the initial phase of TRP4BC (with select PSOs only). Although Cabinet has considerable regulatory power under the *Act*, amendments may be appropriate when expanding to non-PSO organizations.
- The ELC also opines there are no *Charter* liabilities with the proposed initiative. *[See the ELC report for a full discussion.]*

Advocates/ expertise/ endorsements

- The TRP4BC concept has considerable support within Government, organizations and society. *[See Appendix 4.]*
- Trelawny Consulting Group Ltd. has led research and development for TRP4BC, collaborating with JTB Consulting, Victoria Transport Policy Institute, Be The Change Earth Alliance, UVic's Environmental Law Centre, plus academics and experts in many disciplines, in BC and abroad.

Recommended actions

- TRP4BC be included in *Clean BC Transportation Action Plan*
- Negotiations be commenced toward outsourced operations for TRP4BC, reporting directly to the Office of the Premier, targeting a soft launch in autumn 2023 with select PSOs.

Submitted/ proposed by

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Appendix 1. Links/ references

- Explainer videos about TRP4BC:
    - *"Introducing TRP4BC"* 7 min. (www.vimeo.com/687262442)
    - *"10 impact stories"* 22 min. (www.vimeo.com/699126615)
    - *"The blueprint for TRP4BC"* 30 min. (www.vimeo.com/687265823)
- Key informant survey – partial list of people interviewed (https://www.closercommutes.org/about/)
- Batchelor, B.T. and J.T. Batchelor and T.A. Litman. (2023). *How Multi-worksite Employers can Use Secondary Data to Assess Commute Trip Reduction (CTR) Opportunities.* Gabriola: Trelawny Consulting Group Ltd. (www.trelawnyconsulting.com/Batchelor_Litman_TRB_paper_january2023.pdf) Presented to the US Transportation Research Board in January 2023.
- Batchelor, B.T. and T.A. Litman. (2019). *The Effects of Long Commutes and What to Do About Them: An Annotated Bibliography*. Gabriola, BC, Canada: CloseCommute Systems Inc. (www.trelawnyconsulting.com/closecommute/Effects_of_Long_Commutes.pdf).
- Batchelor, J.T. (2020). *A Model Close Commute Policy*. Ottawa, Canada: JTB Consulting. (www.trelawnyconsulting.com/DraftModelCloseCommutePolicy.pdf)
- Environmental Law Centre. (2020). *Commute Trip Reduction Initiatives: Implementing Efficiencies in Transportation for a Greener Future*. University of Victoria: Environmental Law Centre. (https://elc.uvic.ca/reducing-commuter-trips/)
- Metro Vancouver. (2021). *Clean Air Plan 2021*. Vancouver: Metro Vancouver Regional District [See Action Item 1.1.9 on p. 26] (http://www.metrovancouver.org/services/air-quality/AirQualityPublications/Clean-Air-Plan-2021.pdf)
- Mullins, G. and C. Mullins. (1995). *Proximate Commuting: A Demonstration Project of a Strategic Commute Reduction Program, WA-RD 400.1*. Seattle, USA: Washington State Department of Transportation. (www.wsdot.wa.gov/research/reports/fullreports/400.1.pdf)
- Statistics Canada. *Custom Cross-tabulated Dataset on Commuting Flow* – broken down by occupation, sex, commuting length of time (10-minute intervals), census subdivision, commuting flow patterns, mode of transportation – covering Canada's largest metro census areas. (http://trelawnyconsulting.com/public_html/closecommute/CRO0157411_CT.1%20%28FLOW%29.ivt.zip)
- TIME. (2007). *"Let Employees Work Close to Home"* in *The Global Warming Survival Guide: 51 Things We Can Do to Save the Environment*. New York: TIME Magazine. #670 (https://content.time.com/time/specials/2007/environment/article/0,28804,1602354_1603074_1631489,00.html)
- Consortium websites:
    - www.closercommutes.org (organizing and campaigning website)
    - www.closecommute.com (researching and testing website)

Appendix 2. Multiple tactics and collaborations

- The TRP4BC program blueprint envisions supporting the following core tactics for improving the quality of travel choices for employees, students, patients, customers, tourists and delivery drivers. Additional tactics may be added:
    - Offer a guaranteed ride home for medical or family urgencies
    - Add infrastructure (secure storage, change rooms, etc.) & provide incentives supporting biking, e-biking and walking
    - Orchestrate & provide incentives for carpooling & vanpooling
    - End free parking (except carpools) and/or offer 'parking cash-out'
    - Consider shift rescheduling/ flexibility to avoid peak congestion and to match transit schedules
    - Provide a shuttle to nearest transit hub (collaborating with neighbouring businesses)
    - Closercommutes aka proximatecommute™ – *voluntary* peer-with-peer worksite swaps so each person has a shorter/ more active commute
    - Provide transit subsidies/ incentives
    - Provide EV & e-bike chargers
    - Calculate VKT & mode impact when selecting/ moving worksite locations
    - Offer a compressed workweek and/or telework with a hybrid option
    - Provide or lease space in remote/ satellite offices
    - Provide taxi chits for business errands
    - For schools & campuses: active travel programs
    - For health authorities: reduced patient travel (tele-medicine, coordinating services, mobile staff)
    - Local delivery: off-peak scheduling, and use of cargo bikes
    - Participating in current and future pan-B.C. & local transportation initiatives.

- TRP4BC will facilitate collaborations like the secure bike storage facility in Victoria. Retaining staff is a major challenge for many small businesses (retail, restaurants, offices, etc.) so there is a serious need to accommodate any staff member's intention to commute by bike. Yet setting up its own secure bike storage operation would be way too costly and complicated for any individual business. Happily, a collaboration involving multiple businesses and the City of Victoria has converted under-utilized space into a shared facility with a valet, who guards bikes, e-bikes, strollers and other active transport equipment. With TRP4BC, we could soon see multiple co-sponsored secure bike facilities across the CRD, and in every municipality across BC.
- See *www.vimeo.com/687265823* for a presentation of the blueprint for TRP4BC.

Appendix 3. Further examples and considerations

- School active travel:
    - Private vehicle trips ("chauffeuring") of kids to school creates 10% to 14% of all auto trips during morning rush hour. Currently >54% of students are chauffeured; a few decades ago it was only <12%.
    - Multi-faceted *safe & active routes to schools* programs can quickly create a 25% to 43% increase in walking and cycling, and cut chauffeuring by >15%. With TRP4BC, BC will be moving quickly from the current smattering of isolated pilot programs (<20 schools in Vancouver and Langford) to full implementation by all 1,900 schools with 550,000 students.
    - Studies show that students who walk to school have higher attendance, improved health, and better academic performance.
    - Establishing active school travel routines and expectations will help create lifelong healthy patterns.
- The field test of our xlsm app with RBC's South Vancouver Island bank employees revealed that distance-reducing peer-with-peer location swap potential exists for over half of the staff.
- Analyses of StatCan's commuting flow dataset revealed that voluntary peer swaps could shorten commutes for >17,500 teachers and assistants across Metro Vancouver school districts.
- More from that dataset: fewer than 10% of Metro Vancouver region firefighters live within a ten-minute daily commute of their firehall. After a major earthquake, it will be nearly impossible to quickly knock down the multiple fires caused by gas line ruptures and downed power lines without enough firefighters. Best case scenario – clear roads and functional bridges – would see only 26% of firefighters could make it to their workplace by car within 20 minutes. Orchestrating voluntary re-deployment to working at stations closer to home would be prudent disaster preparation.
- Police in the Lower Mainland and the CRD face the same logistical problem. Only 21% of them could make it to their regular work location within 20 minutes – assuming passable roads and bridges after the "Big One".
- StatCan data suggests that three out of every four employees in BC's urban areas could be commuting needlessly far every day – many driving over an hour each way. That's more than 400 hours per year wasted per person, increasing the health and safety risk to the long commuters, contributing to traffic congestion, polluting the atmosphere and causing avoidable carbon emissions.

Appendix 4. More endorsements, expertise and advocacy

- In 2006, BC Teachers' Federation delegates unanimously passed a resolution supporting voluntary "green lateral exchange-transfers" (essentially the closer commutes tactic) to reduce some members' long daily commutes without impacting seniority and pensions. The head of BCPSEA said he is in favour but has never received bargaining direction on this from the Ministry.
- 1,600 citizens have registered with change.org, advocating for implementing the closer commutes strategy for BC teachers and financial sector workers.
- Executives at BC Transit, (now former) Mayor of Victoria Lisa Helps and other municipal politicians have publicly endorsed this initiative.
- Cabinet ministers Bowinn Ma, Murray Rankin, Rob Fleming and George Heyman (and previously Claire Trevena and Deputy Premier Carole James) have been personally briefed (some on multiple occasions) and have provided advice and encouragement. Before she became a minister, MLA Ma presented our early research and recommendations to policy advisors in then-Premier Horgan's office. Minister Rankin was a reviewer for the Environmental Law Centre's legal opinion report (prior to his election as an MLA). Then-Education Minister Fleming (current Minister of Transportation & Infrastructure) sent letters to school districts encouraging them to participate in field testing. Deputy Premier Carole James asked for pilot-testing with large employers, which precipitated the successful testing of our .xlsm app with RBC Royal Bank's South Vancouver Island region's employees, and key informant interviews with executives at nine school districts, BCPSEA and BC Teachers' Federation and other large public and private sector employers.