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Overview: [SMARTer Growth](#) - Sustained Liveability, Climate Action, Traffic Safety, Rail Transport, Infrastructure Management – all through a UN SDG quality of life lens; with decisions made through Open, Inclusive, and Accountable government!

A. Who is Gord Lovegrove?

- I'm a long time Kelowna resident and father of four, who has had the privilege to be:
- A founding member of, and Associate Professor in, the UBCO School of Engineering where - I've been honored and very proud to have taught many Kelowna sons and daughters since 2005 in planning and design of sustainable communities, housing, transportation, safety, economics, railway, and systems engineering.
- All my details are on my websites, and my Facebook pages:
 - UBCO (engineering.ok.ubc.ca/about/contact/gordon-lovegrove), and
 - My campaign website (lovegrovekelowna.ca)
 - FB: Gord Lovegrove
 - Twitter: @lovegrovekelowna
- I'm a professional engineer with over 25 years of experience across BC cities large and small, urban and rural.
- Two years ago I was asked to serve on the Board of the Kelowna Gospel Mission (KGM), who's mission is to feed and shelter people experiencing homelessness, and, if they so choose, help them on a healing journey back to wholeness.
- I also co-lead the technology node as a member of UBCOs Homelessness Research Cluster.
- I've been asked to chair national sustainable development committees, and co-authored best practise guides for both Cdn & US Civil Engineering Societies;
- I helped start the School of Engineering in 2005, and immediately connected with community stakeholders who shared my passion for the environment, community and sustainability. Through these partnerships, I have been active with the Kelowna Climate Coalition, Kelowna Tree Protectors, and Okanagan Sustainability Leadership Council.
- Most recently I was honored to be asked to serve as Canada's 1st ever Departmental Science Advisor to the federal Deputy Ministers for Transport Canada and Infrastructure Canada, on

climate action, sustainable development ([SMARTer Growth](#)), housing, homelessness, sustainable transport & rail, and community resilience.

B. Why am I running for City Council?

- What I'm offering Kelowna is very simple: my sustainable community engineering experience. After a 40 year engineering career leading sustainable development and climate action projects, the last 20 mentoring and teaching at UBC's School of Engineering, I'm stepping down.
- I've been trusted to teach your sons and daughters. I've been trusted to advise your federal government on climate action, sustainable development, transport and housing. Will you trust me with your vote?
- Kelowna is naturally gorgeous with a Quality of Life and Liveability that folks are flocking to; we are growing and we need to make [SMARTer Growth](#) decisions on how and where we accommodate new businesses, industry, and residents.
- I have knocked on thousands of doors and spoken to thousands of residents and businesses. A common theme is emerging – people are saying it is time for a change on Council, because of recent growth management decisions. Yes, we are a regional economic driver, technology hub, and eco-tourism destination – but folks are concerned that recent Council decisions have put all that at risk. It is time for a change, to align our strategic direction more closely with federal and provincial commitments on UN Sustainable Development Goals (UN SDGs).
- Kelowna is at a crossroads, we can continue to follow a sprawling Business as Usual approach, with orphaned communities on hillsides we can't afford to service, or, we can lead with experience, vision and sustainable, [SMARTer Growth](#) patterns that learn from our successes, mistakes, and world leading best practises.
- I have a skill set exactly mated to concerns that Kelowna citizens have identified on liveability, housing affordability, safety, homelessness, traffic congestion, and effective climate action
- I am offering my time and effort now, to help guide the most important decisions for our future
- I would bring expertise to Council decisions that would otherwise take weeks and thousands of taxpayers dollars to get from a consultant
- I can drill down to the real issues quickly, I have the vision, I can make up my mind
- I would bring systems-thinking and life cycle approaches, that preclude temptations to do costlier, short term, ineffective, tail-pipe solutions that are penny wise and pound foolish
- Safety, smarter solutions, and systems thinking are the domain of engineers, our training, and our legal duty
- Yet, I practice Mindfulness, I admit I do not know it all, and strive to always be a lifelong learner, an active listener to residents and other experts on the issues, and to judge each case on its own merits in accord with my pursuit of the UN SDGs.
- I am well connected given my 40 years of practice, research, mentoring, and research. When I need more information I know who to reach out to, and am well-respected in my local and global networks such that I can get answers quickly. I am a lifelong learner.
- I have always been a community builder, a connector in all my spheres of influence – whether it be in building youth clubs, Seniors Learning in Retirement, my professional circles, and Kelowna Service Clubs (Toastmasters, Rotary, FRAHCAS, KSAN, KCC, KTP, COHS, HAC).
- Its now time for the hard work to be done on Council, to move from GREAT plans to GREAT actions.

C. My Platform – Introduction

Lovegrovekelowna.ca has more on how I would push Council to move from vision to [SMARTer Growth](#) Actions - Sustained Liveability, Climate Action, Safety, Transport, Infrastructure, Housing & Homelessness, all through a more inclusive, accountable, and respectful governance framework. I'd push Council to make [SMARTer Growth](#) decisions, including:

- Tightly Integrated Official Community & Strategic Transportation Plans – I have provided numerous inputs to the various Stakeholder processes on both these plans, both individually, as a part of my time serving on your Kelowna South-Central Association of Neighbourhoods (KSAN) Board. I have always pushed for Growth Scenario 3, whereby distributed density and low-rise buildings more than accommodate our future population growth, focused in our five activity centers and along high-quality transit service corridors. While the foundations are there, Council has not gone far enough, let alone followed, its OCP 2040 Plan, nor its Climate Action Plan, and approves 95% of all variance applications, including massive building height exclusions. I have previously provided briefing papers on this to KSAN, to Kelowna Tree Protectors, and to the Kelowna Climate Coalition, which I also have been part of. While the idea of density bonuses, social housing, and parks are noble attempts at justification, all these three elements can more than be done within the Scenario 3 and distributed growth model that I term SMARTer Growth Neighborhood Planning and Design. I have researched, published peer reviewed journal articles, and written / co-authored several books on SMARTer Growth principles.
- Homelessness (see also E below): Working with INFC, BC Housing, shelters, and other partners on a compassionate campus of care that integrates shelters, social housing, and job skills training so that we can help people heal and restore dignity, with re-integration into community housing (cohousing).
- Safety: There are several aspects to safety, including: personal security, traffic safety, and emergency preparedness. Each is an entire City department in its own right, but to summarize ways I would push to improve safety in Kelowna:
 - Personal Safety – the RCMP do an excellent job employing CPTED principles when working with city staff (Crime Prevention Thru Environmental Design); I have been teaching CPTED for years and would push for all staff planners to be trained in it to ensure parks, housing, and businesses are safer against crime. I also want to see Block Watch and Neighborhood Watch programs re-booted, to give residents more connection to each other, the police, and their community.
 - Traffic safety – I support expanding Speed Watch to keep traffic in neighborhoods at safer speeds for kids, seniors, and cyclists, including a 30 km/h speed limits on all local roads. I would also push for a roundabouts first policy, which reduce all types of serious crashes by over 80% and have lower lifecycle costs than traffic signals. As 96% of crashes involve human error, I would push for more alternatives to driving, including: improved transit, OVER PR, bicycle paths, and walkable neighborhoods.
 - Emergency Preparedness – I would push for expanded community training and public awareness events to connect residents to resources and each other in the even of droughts, heat domes, wildfires, floods, earthquakes, torrential downpours, and other extreme / unforeseen disasters. My German colleagues conduct annual Emergency Preparedness fairs in their Downtown Pedestrian Malls; I would push to have the same in all neighborhood centers

- Traffic and Transportation – Transportation emissions account for up to half of all GHG emissions in our Okanagan Valley, not to mention carcinogenic particulates that have more than quadrupled the incidence of asthma in our children and premature respiratory deaths in our aged. In addition to our noise and air pollution problems cause by driving in ‘Canada’s Car Capital’, the cost of congestion in Kelowna due to lost productivity and other delays amounts to over \$4 Billion/year; therefore, reducing congestion will help reduce the cost of goods and services, thus improving affordability. I would push several initiatives to address traffic congestion, traffic safety, noise and air pollution, including:
 - Community U-Pass (ComPASS) – similar to the UBCO student U-Pass, I conducted a 3 month U-Pass trial for Glenmore residents in 2012, and found 75% of residents would participate. ComPASS would increase net transit revenue for the City, while improving transit for all. It has been in Boulder, CO, USA for decades.
 - Roundabouts – all traffic delays and most crashes occur at intersections, which in Kelowna are largely traffic signal controlled that are inefficient, especially along Highway 97 where through-traffic provincial flows conflict with crossing Kelowna traffic flows. Roundabouts reduce over 75% of delays and 80% of serious crashes, which translate directly to lower overall costs and GHG emissions. Hence, I would push for a roundabouts first policy.
- OVER PR (EV Valley Tram-train) – see below for expanded discussion. My vision for the Okanagan is to reconnect our communities via a zero-emission Okanagan Valley Electric Regional Passenger tram-train (OVER PR). Together with system-based land use initiatives, OVER PR would work together to reduce costs and improve productivity for your city. Moreover, OVER PR would improve our travel choices and connect our seniors, students, and low-income tourism/service/agricultural workers to more affordable housing in neighboring communities up and down our Valley (to hear/read more on my vision for OVER PR, please check my YouTube video out entitled “The Future of Sustainable Transportation”; and/or visit my UBC research website at sustainablecommunities.ok.ubc.ca). In concert with the OVER PR valley tram-train we would integrate new and improved transit services, (including more community shuttle buses up Clifton and Kettle Valley), and complete city-wide bike path networks connecting to each station.
- Governance – I would push to re-connect community back to Council (Funding NAs, Council mtgs in neighborhoods); Advisory Committees on Climate Action, Safety, Housing, Agriculture (that have at least one Council member on each one)
- Economy – I would push to see Bernard become a year-round pedestrian/bicycle Mall, and to cover it with a space frame for year round access to keep our Downtown vibrant. This is similar to what Boulder, CO does, as well as Simon Fraser University, and would work well in concert with the influx of students and staff from UBCO’s new downtown campus. I am also discussing ways to do the same in Rutland, given the success we have seen with Bernard summer closers.
- Environment
 - Climate Emergency – I have co-authored two letters to Council, asking them to declare a climate emergency. As I said, I have provided briefing papers on the City’s recent Climate Action Report – I advise the federal ECCC staff on Climate Science 2050, this is an area I have been involved in for years. The City’s report

is accurate but muted on how dire its gaps are between what is needed and what Kelowna Council has done; however, it fails to include any real effective budget nor actions to remedy its gaps! The scientific evidence is overwhelming, with numerous UN reports from world experts calling for drastic action. We must act on it; I would push for a myriad of responses in all areas of City Hall, inside and out – plant more trees; tree protection bylaws; climate lens for development approvals; higher quality and more transit and bike/walk paths to shift away from driving private vehicles; Community U-Pass (like UBCO students have, but for neighborhoods, called ComPASS, or NECO Pass in Boulder, CO, USA), standing Council committees to monitor and pursue effective action.

- Agriculture – no development on ALR; find a permanent Farmers Market home; seasonal farmworker recruitment/housing – we need food security! Modify RU-7 and other zones to maintain and build up our green rooves and tree canopies on private property, following Provincial tree replacement guidelines to ensure net positive gains! Parks are by definition our spaces for social/recreational/spiritual connection and restoration, not to mention our eco-system/climate ‘sinks and cleansers’ – we need to adopt the EU/Dutch ratio of green space/resident, such that EVERY home is within a 1 minute walk of a park/green space!
- Air Quality – install publicly visible monitors along Hwy 97 and in our downtowns so folks know / can take precautions
- Land Use – SMARTer Growth as noted above, distributed density, greener, more walkable/bikeable neighborhoods that reduce driving and promote quieter, cleaner, restorative, social environments for our families, old and young, to thrive in!
- Net Zero / Step Code Housing – Our buildings – residential, commercial and industrial amount for up to 40% of our Okanagan Valley GHG emissions and energy consumption over their life; we can reduce these impacts by over half if we simply introduce proactive building bylaws and incentive program partnerships for energy retrofits. I designed and built in my own back yard the OK Valley’s 1st NRCan certified Net Zero Carriage House (Step Code 4/5). I want Kelowna to immediately adopt Step Code 5 for all new homes, and partner with senior governments on accelerated audits/approvals/rebates for retrofitting existing homes toward Net Zero. There are now \$5,000 grants coupled with \$40,000 interest free loans to retrofit existing homes.
- Heritage – As a teacher and professor, I have found that my students best learn through the use of story telling. Heritage is about the history – the story of our origins, our people, places, events, dates, and associated processes that have pre-dated us yet formed how we live and move and have our being today. Heritage provides a living history and stories that teach us, a bridge between past, present, and future generations so that we learn and build on the shoulders of giants. Its teach us about our morality, our community values. But heritage does even more when you consider that existing buildings represent embodied carbon; these physical/visible/living stories teach us about the intrinsic values of community – increasing our resiliency as they bring us together, and teach us how to sustain ourselves going forward. As a member of Kelowna’s Heritage Advisory Committee (HAC), I am aware of ongoing Heritage preservation efforts. As a Councillor, I would push for:

- Updating of our Heritage Design guidelines (HDGs), and approvals process
- An updated Heritage Alteration Permit (HAP) that requires not just a Heritage Planning Study (HPS), but that the HPS Terms of Reference and Methodology be pre-approved by a Staff Heritage Planner
- Heritage Tree Bylaw – I happen to have in my backyard, and each year we enjoy fruit from, one of Kelowna’s oldest Princess Ann cherry trees!
- More two-way consultation and engagement with the public and the HAC, prior to development approvals, HPS, and HDGs.

People are saying it is time for a change. If you LOVE Kelowna’s Quality of Life & Liveability, I urge you to vote Lovegrove! You have many choices on who to vote for, if you agree that Love is the answer, you won’t forget Lovegrove. Your City – Our Future – My Experience

Below are more specifics that flesh out my platform, but it is a work in progress, especially as I learn more and hear from more residents your concerns that you want addressed. Therefore, for more information, more specifics, or any questions, feel welcome to reach out via gord@lovegrovekelowna.ca

D. OVER PR: (Okanagan Valley Electric Regional Passenger Rail) Zero Emission (Hydrail) Passenger Tram-Train – Technical Primer

Growing communities and tourism essentially doubles car traffic in BC’s Okanagan Valley each summer. Its connecting provincial Highway 97 suffers from congestion, emissions of noise, pollutants and greenhouse gas (GHG) as well as crash-related injuries. Highway widening is very slow, prohibitively expensive and causes community impact opposition. Calls are growing for a 2nd Crossing of Okanagan Lake, at \$1/2 Billion, together with more traffic!

For decades, the great tourist destinations in Europe have demonstrated that zero-emission electric passenger trains provide economical, social and well experienced services, using made-in-BC hydrogen fuel cell power (hydrail) since 2018. This study designs between Osoyoos and Kamloops (342 km) an Okanagan Valley Electrical Regional Passenger Rail (*OVER PR*). A tram-train would share traffic lanes in lower-speed urban areas without need for land acquisitions, and eliminate the need for a costly 2nd Crossing at Kelowna. It can go up any Highway 97 grade, and around any Highway 97 curves. Outside cities, the OVER PR tracks would be separated from Highway 97-lanes; of course, exact routing and station locations require community consultation. Initial forecasts expect a 30% shift from auto use onto OVER PR, thus freeing up congestion, and growing in the long term as communities grow around this safer, greener travel option, and, as eco-tourism grows via connections to the US (Osoyoos) and the rest of BC and Canada. Is OVER PR needed? Yes, to accommodate growth!

Social cost benefit analysis (SCBA) show that OVER PR would cost less than ½ of widening Highway 97 with a 7-to-1 benefit-cost ratio (BCR). Within 30-years a *net* present value (NPV) of over \$10 billion is estimated, at 6% discount rate, and 2-year payback period. Multiparametric sensitivity analysis using Monte Carlo Simulation (MSC) show a 95% certainty for NPV, which is most sensitive to mode choice.

<https://www.youtube.com/watch?v=8K5s0or33f8> is a visulation of how an OVER PR would operate. You can also search for it directly on YouTube: “The Future of Sustainable Transport – Gord Lovegrove”



E. My Vision to help People experiencing homelessness

This is such a complex problem, and I am still learning much about it; however, my time serving on the Kelowna Gospel Mission (KGM) Board, and co-leading UBCO’s Homelessness Research Cluster, has helped me better understand the needs of people experiencing homelessness, as well as the needs of service providers. Our UBC Homelessness research team estimate that over 50% of people experiencing homelessness have mental illnesses that preclude them living in housing; this suggests some re-constituted form of Riverview Hospital is needed, using the latest technology and best practises globally to provide compassionate care and institutional housing for these mentally ill people.

For people experiencing homelessness in Kelowna who are able to begin a healing journey back into full participation in our community, I would push for local service providers to partner with government partners in pursuit of a campus of care with community kitchens, overnight shelters, free dental clinics, social workers, and transition housing. If possible, I would like to lead by example through also partnering with my Kelowna CoHousing to provide full re-integration into community. Ideally, this would occur on or near farmland so that as part of their healing journey, partners provide agricultural job training and more skilled workers to our local growers, producing a win-win-win community solution. Partnerships like I envision will restore dignity, reduce stigma and build trust in our community-based supportive housing solutions.

Compassionately addressing both mental illness and a campus of care would also help to address public concerns regarding safety in our City Parks and Downtowns.

F. Re-connecting Council to Communities – Open, Inclusive & Accountable Governance

If you plan for cars, you get cars; if you plan for people, you get people. I am a people-first person; I love connecting with people, and, I love connecting people with people. It is time to reconnect our Council to its communities through [SMARTer Growth](#).

Governance –Kelowna City Council faces many complex challenges in the coming years. Given that less than 30% of Kelowna residents voted in 2018, and less than 5% of businesses and

residents typically engage in City on-line surveys and public hearings, our most critical issue is to have more ongoing and representative community and stakeholder consultation. This was bad before the pandemic, and has only gotten worse with Council cancelling in-person council meetings and public hearings (Provincial Bills 10 and 26). How are councillors held accountable for their actions besides one municipal election every 4 years? How are residents and businesses meant to trust that Councillors will fully grasp and make informed decisions on critical issues on their behalf? I desire to bring my years of hands-on professional experience and proven innovative research results, combined with my recognized expertise in successful community engagement efforts, to help.

Council must support Resident Associations - Specifically, I would push for Council to re-invest in Neighborhood Associations, and push for rotating Council Town Hall meetings to occur at least once per year in each neighbourhood. The City already has a Strong Neighborhoods Office that reaches out on-line to individuals, including a May 1st Good Neighbor Day that I participated in. We could build on this with the city providing support for annual events (see below under climate action) that re-connect hundreds in person in each Neighborhood. Current NAs are listed on the City's web page but several are inactive due to lack of support. My door knocking has heard that many residents feel disenfranchised, due to lack of in-person engagement. We need more open, inclusive and accountable governance, as follows:

Open - I will push for Kelowna City Council to re-connect with its residents, holding at least one meeting hosted by each of our neighborhood associations each year. Kelowna.ca lists those associations on its Strong Neighborhoods web page, but many are struggling and feeling disconnected. In my doorknocking I hear items specific to each, and it would behoove Council to engage through in-person meetings to acknowledge those concerns and what needs to be done to help. For example, Rutland residents are feeling dis-enfranchised and dis-respected by many of the developments being approved, including many variances, despite many legitimate infrastructure, crime and safety concerns being raised by existing residents. Many seniors and residents in and around Downtown Kelowna have concerns over high-rises and homelessness and safety. Almost every neighborhood have traffic congestion concerns. Many residents in Clifton, Magic Estates, and Glenmore Highland residents want to see community shuttles and transit service introduced, which would help alleviate traffic congestion and GHG emissions. In EVERY neighborhood, residents are resonating with the idea of a regional electric tram-train connecting our Valley communities like a string of pearls between Osoyoos and Kamloops, all at less than half the cost of widening (or double decking!) Highway 97!

I've also been talking with business owners and their staff as well. They share many of the same concerns in each neighborhood, especially regarding access to their businesses, and recruiting/keeping good staff. Farmers are desperate for workers, which also impacts our long-term local food security, agricultural and wine-tourism sectors. I will push proven [SMARTer Growth](#) strategies to help address these concerns in an affordable, environmentally-friendly, and respectful manner.

Inclusive - In addition to pushing for Council meetings in each community at least once a year, I will push to re-establish Council Standing Committees on the major ongoing growth-related issues facing our City, including:

- Environment (climate action, tree canopy, water, air quality),
- Transportation (OVER PR, transit, Highway 97, freight, bicycling, congestion, airport),
- Housing (homelessness, affordability, densification, building heights, growth boundary),
- Agriculture (ALR, seasonal housing, urban/rural inter-faces, farmers markets),
- Safety (crime, fire, emergency preparedness, resilience)
- Culture (Heritage, events, arts, entertainment, community associations, social planning)

I will rely on proven models that I and others have used/are using of stakeholder engagement success, pushing for each committee to have at least one Councillor, a staff expert, Indigenous members, external experts, citizens and businesses represented. I also wish to see Kelowna dedicate annual \$1,000 Strong Neighborhood grants to support each Association continuing to help City Council fan out, connect with, and hear from its residents across Kelowna. For example, most climate action advisory committees in our Okanagan Valley have staff member(s) and councillor(s) on them. It is time for Kelowna to catch up, with public advisory bodies to provide effective, timely public appeal avenues, balanced discussions, and wider inclusion prior to a final Council decision on critical issues.

Accountable – In addition to pushing for a more open and inclusive Kelowna City Council, I would push for improved, continuous monitoring and reporting on all of these important growth-related areas, including the requirement that EVERY decision brought before Council include a Climate & Quality of Life Lens evaluation, so that Council, its staff, its committees, and its businesses and citizens are all aware of the system-wide climate and sustainability impacts and/or benefits BEFORE that decision is made. In this way, Council must explicitly account for not just who will pay for associated infrastructure costs (e.g. we are already over \$1/2 Billion in infrastructure debt due to previous hillside development approvals), but also how the decision might increase/decrease liveability, growth boundaries, safety, climate emissions, air quality, heat domes, droughts, floods, and housing markets. Many of these above considerations are already done by Kelowna staff in a very capable way; however, those are not made public, so this would be a minor cost to implement with enormous upside in positive public trust outcomes. I would also push for earlier access to Council discussions, and staff/applicant records before growth decisions are made to promote public trust and verify that indeed these climate lens, SMARTer Growth, and sustainable financial practises are being followed.

G. My Vision for Climate Action

I reviewed and critiqued the recent report to Council on Climate Action by the City's Champion for the Environment. Staff correctly identified many large gaps between what Council has done versus what the Province, Federal Government, and United Nations are calling for. However, recommended actions reflected nominal improvement over past actions; more effective measures are now, or Kelowna's cost to recover and rebuild from climate-change-related events will exceed our ability to pay and destroy our community resilience. More affordable, proven

effective strategies that proactively pursue systems-based, climate actions that build on synergies, include things such as:

- OVER PR – less than half the cost of widening Hwy 97, reduces 30 to 50% of transport GHG emissions, reduces congestion and crashes, and improves transport equity and health access for seniors and from remote/rural communities and Indigenous communities
- ComPASS – Community U-Pass, similar to the UBC student U-Pass that triples transit use, but for residents and families across Kelowna, used in Boulder, CO, USA for decades. My 2012 ComPASS research project and Kelowna pilot study showed that 75% of Kelowna residents would use it, a tremendous potential to reduce congestion and GHG emissions, all while increasing transit ridership and revenues for the City of Kelowna!
- Roundabouts first – put a moratorium on costly new roads and traffic signals; when you consider the reduction in delays and serious crashes that roundabouts have proven time and again in all communities across North America, we are long past due having more in Kelowna to address our traffic congestion. Delays and congestion happen at signalized intersections, so the solution is NOT to build more roads; the solution is to remove and replace signals with roundabouts! Critics suggest this requires more land at intersections, which may or may not be correct depending on the location; however, LESS land overall is needed because roundabouts preclude the need to buy property and/or install left-turn bays and widen road lanes. Moreover, roundabouts require less maintenance, no expensive signal controls, and reduce operating costs, such that over their lifetime, roundabouts are much less expensive than signals to install and operate. Roundabouts also operate better in off-peak (e.g. night time) traffic periods, and, when power outages occur, as they do not need any power.
- Energy retrofits of all existing buildings in Kelowna is needed – we know that upwards of 25% (and closer to 40% if construction and demolition costs are included) of Kelowna GHG emissions come from homes, buildings, and industry that use old, outdated technology to power, heat, light and insulate their facilities and equipment. I would push Council to pursue partnerships with the Province and Federal governments to incentivize retrofits, and, I support immediate changes to city bylaws to codify all new and renovated buildings at Step Code 5 in the midst of our climate emergency.
- SMARTer Growth Neighborhoods – I would push City Council to immediately instruct its staff to employ SMARTer Growth Neighborhood system planning principles when updating its Official Community Plan, and associated Sector Plans to promote a sustainable level of liveability across Kelowna. This means we design all neighborhoods to have parks within a one-minute walk of each dwelling, sidewalks and bike paths that allow for 5 minute walks to bus stops and shopping; larger shared community parks with schools and neighborhood associations in their center that preclude cars shortcutting through. This exists in many communities globally, and experience 60% fewer crashes, quieter homes, and less GHGs. Yet all these neighborhoods are well connected with high frequency transit for short and long trips, while reducing costly road construction by 30%.
- Heat island reduction & natural flood control – I would push for a private property tree bylaw & green rooves; and extra tree bylaw enforcement officers – URBAN FOREST is mentioned but where are the details?? I would push Council to adopt the Provincial tree replacement

guide that our Kelowna Tree Protectors have previously written to Council about. I would push Council to introduce a mature tree relocation requirement using spades (large mature 50 to 60-year-old and older trees moved by a spade is common in The Netherlands!).

- There is much wisdom to be learned from collaborating with the Okanagan Nation Alliance, who have lived experience in natural infrastructure systems. In addition, the City's Climate Action Plan was prepared in the absence of consulting any UBCO/OC/OSLC climate experts, so I would push to have more academic input, bringing the latest scientific evidence of what works and affordable, and harmonizes with Indigenous lived experience and traditional knowledge. UN SDG # 17 is Partnerships for a reason. Taking climate action is a daunting task, and often overwhelms communities for lack of collective wisdom. In Kelowna, literally in our own backyards, we have UBCO, OC, OSLC, and ONA wisdom and experts eager to help. I would push Council to be more inclusive of our resident experts as opposed to hiring costly consultants.
- Climate lens for development approvals – the City has already developed a tool to do some of this; I teach several other engineering tools for evaluating infrastructure (e.g. Envision), and buildings (e.g. LEEDS); I would push Council to immediately adopt a policy that requires a 'no net GHG increase' climate lens certificate for all proposed budget items, pending achievement of Provincial and Federal targets.
- Standing Council committee to monitor and pursue effective climate action – to track City progress, and grow trusted public, I will push Council to immediately enact a Standing Committee comprised of at least one Council member, the City Climate Champion, the Mayor, the City Manager, ONA/UBCO/OC/OSLC experts, business members, residents and others, to begin monthly meetings in support of City staff and climate actions.
- Car Free Street Malls – Summer Bernard Avenue closures have already been shown to work well and attract great walk-up business and tourism; I would push to expand it to year-round. Moreover, I would push to trial similar Sunday street closures in other Neighborhoods, perhaps associated with community celebrations (e.g. Rutland May Days; Glenmore Family Days; KSAN Heritage Days).
- Plant more trees & provide more passive parks – push for a tree bylaw to protect (last resort replace) mature trees in the face of development pressures, and get more parks within 1 minute of all homes in all neighbourhoods; the City of Vancouver (West End) did this in the 1980's as part of traffic calming via mid-block street closures (which still allow peds, bikes, and EMS vehicle connections). Having a mature tree canopy, and more green space will help Kelowna reduce its heat island effect, and thereby preclude the number of extreme heat dome days. A tree bylaw will also help prevent more ground water disruptions and slope failures/flooding like we saw in Black Mountain.
- Infill Densification – I would push to enforce Kelowna growth boundaries, and push to infill existing neighborhoods, which would make more efficient use of infrastructure. In my back yard in 2019, I designed and built my NRCan certified Net Zero Carriage House, in full consultation with neighbors.
- Food Security & ALR – We need to reduce the carbon footprint of our food supply; Kelowna as its motto says (Fruitful in Prosperity) is blessed to be part of Canada's largest fruit and wine region, but much more of the ALR could be in higher production instead of being held

for development speculation. I would push Council to seek ways to incentivize improved productivity of ALR land.

- Heritage Buildings, Trees, & De-Construction – The embodied carbon in our existing buildings and trees is enormous, as is their heritage value when over 60 years old. I happen to care for one of the oldest cherry trees in Kelowna in my back yard, next to my 1956 heritage home – we are blessed – and often have visitors wishing to take photos of them. Not only should we preserve heritage buildings to add to Kelowna’s distinctiveness, historic value, and tourism attractions, we have great opportunities to reduce carbon and GHG emissions by de-constructing buildings approved for demolition and re-using its materials for passive and net zero building construction. I did exactly this and re-used many timbers from my old garage, as part of my Net Zero, heritage style, carriage house infill densification project.
- A less obvious but equally relevant issue that I have picked up on in discussions with workers and businesses relates to climate change and job stability. Specifically, how will we equitably and justly transition to clean technology without closing businesses and putting workers out of jobs? The Just Transition will take decades and ongoing discussions involving all stakeholders – labor, business, government, and public taxpayers. We must ensure no one gets left behind, and good paying jobs are provided for everyone that wants to work. For example, there will of necessity be job losses in the oil and gas and auto-related sectors, Kelowna is home to many auto dealerships and related businesses. But there will be new opportunities in the emerging zero-emission (ZE) hydrogen and EV (electric vehicle) sectors that open new labor markets and OC trades school UBCO training opportunities. I will push for City Council to lead by example in tackling climate change while supporting Canada’s Just Transition with compassion and collaborative, inclusive solutions.

H. My Vision for Highrises, Distributed Density, & Infill Densification

Many of the thousands of Kelowna residents I talk to are upset with ‘unbridled growth and highrises’. Yet many Kelowna businesses and developers I talk to are excited about how developer-friendly Council is, and the resulting recent highrises being built in support of our booming tourism industry. Based on what I have heard, together with my experience in, and research of, building sustainable communities globally, I would push to accommodate growth and provide supporting infrastructure following best-practise, [SMARTer Growth](#) strategies, as follows:

Highrises – In 2018 I hosted my colleague, Dr Marc Verheijen, City Architect and Approving Officer for Rotterdam, to visit Kelowna funded in part by UBCO’s Visiting Scholar Program. As such, he is familiar with the growth pressures Kelowna is facing, and like Rotterdam, he sees Kelowna as ‘the place to be for developers’. In Rotterdam, he also welcomes world-famous developers, but invites them to a partnership with residents and Council, to partner together on ways to provide ground-oriented, public, green spaces, together with green rooves, and at least a 20% social housing component for all developments. Heights are strictly enforced according to City land marks (e.g. church steeples), as are view corridors, and, impacts must be addressed to minimize view corridor loss, wind tunnel creation, and heat islands. Since all developers are treated equally, these requirements are seen as a cost of doing business and paid for out of

market housing revenues (e.g. penthouse suites). I would support a proactive approach like this, together with a well consulted city policy that caps heights and locates taller building sites accordingly, to ensure a pedestrian scale of development alongside our Lake.

Distributed density – I have written a book on [SMARTer Growth](#) Neighborhood Design Principles to promote more walk/bike friendly lifestyles, situated within a 1 minute walk of green spaces, and 5 minutes of high quality bus stops, shops and services. Many parts of the world need only 4 stories to realize densities that support markets and transit corridors, while highly bio-diverse (e.g. Delft, Houten, Rotterdam in the Netherlands; Karlsruhe, Hannover, Keil in Germany; Paris in France). Highrises are not needed for density to support liveable lifestyles, but they do support commerce and tourism. To help address this issue in a more sustainable way, I would push Council and staff and other community members to come with me each June as I lead my students on my Go Global courses to live, travel, and experience The Netherlands and its sustainable community (I call them [SMARTer Growth](#)) development patterns. Feel welcome to join me (at your own expense), by e-mailing me at gord@lovegrovekelowna.ca!

Infill densification – Of course, Kelowna is built out in many of its neighborhoods, with an approved OCP 2040 Growth Boundary and ALR parcels adding complexity and constraints on where and how we grow. Therefore, infill densification must be considered, including such things as backyard carriage houses like the one I designed and built, or, the RU-7 quad dwelling zones that my award-winning architectural design colleague, Mr Shane Baxter, invented. I would like to see more protection of existing trees, as well as additional new trees planted no matter what form of infill is pursued, and would push for changes to include this in the RU-7 zone, along with a standalone Tree Protection Bylaw that builds on the Provincial Tree Replacement Guide.

Overarching all talk of development is the need to respect existing residents and the history/culture of their neighborhoods. For example, our Abbott and other Heritage Districts must be protected as valued cultural icons of Kelowna's past. Streets and residents that do not want their neighborhoods disrupted by densification into RU-7 knock-downs should be heard and also protected, through outright moratoriums or Sector plans that specify when and how growth could occur. In most cases, I would support carriage houses as a second dwelling on large lots, but only where infrastructure such as good transit / bike routes reduce the need to drive and park – traffic is a common complaint I hear regarding infill housing 'at all costs'.

I. Improving Access to more, and to more Affordable, Housing

The lack of access to affordable housing has driven up purchase prices and monthly rental rates, and driven down rental vacancy rates in Kelowna to 0.1%; this is a huge problem for service workers and students, and for young families. While 'affordable housing' is a ubiquitous term, I follow the CMHC definition of housing costing less than 30% of household income; so it varies depending on where on the spectrum of income level one sits. Increasing the number of housing units is key, both rental and ownership units, and the sliding income scale means you do that many ways, taking a system-based approach, including:

1. Higher income earners looking to buy homes - Build more new homes, condo's, and townhomes, to meet buyer needs (single, married, families, etc), including ground oriented missing middle family homes – our OCP 2040 has identified areas for these new housing types

within its Growth Boundary; we need to stand firm on no new development outside our Growth Boundary.

2. Lower income earners - Land banking and income-based rental housing funded by CMHC/INFC as was announced in this year's budget; we have many examples in and around Kelowna (e.g. Columbus Gardens on Burtch; Father Delestre on Houghton). Rents are capped at 30% of income.
3. Seniors living alone in big homes, on fixed pensions - happipad.com has proven ways to match students with seniors, and is introducing shared seniors housing as well.
4. Students - UBC has been increasing its on-campus student rental housing supply; plus students finding shared accommodation with other students and others (happipad)
5. I would push for more of all the above, plus infill densification (carriage houses) whereby empty nesters rent out the main home, which I have done working with happipad on a new seniors shared housing model. You will hear more about this.
6. I would also push for more social income-based, rental housing as a component of all major developments going forward, something that is done in all successful cities worldwide.
7. Increasing housing supply is also possible by reducing the transport costs to access it by my proposed OVER PR, via neighboring communities!
8. CoHousing (see cohousing.org) and Co-Ops is another way I am partnering with the Canadian CoHousing Network (CCN) as part of their affordable housing committee to pursue. There is much evidence showing that affordable housing is a social determinant of health!
9. Developer driven multi-family market residential - I want to push for consistent and fair treatment of all home builders, whether it is owner/builders putting infill carriage houses in their backyards, or developers building larger projects - no surprises - so a level playing field that all must comply with as a predictable cost of development, including infrastructure impacts and community benefits, all using the climate lens and thereby ensuring a full cost accounting investment decision process can be made as part of the staff/Council deliberation process.