

Rail~Volution Vancouver

September 7-11, 2019

Report by Will Allen ■ September 21, 2019

1

WHAT RAIL~VOLUTION IS ABOUT

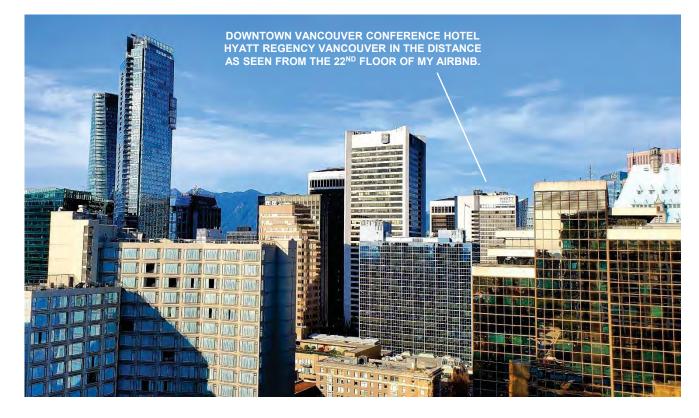


Focuses on the nexus of land use and transit



Building Livable Communities with Transit

- Stronger emphasis than ever this year on equitable outcomes by forging the relationship between transit and land use (TOD projects and affordable housing). But, again, still no common solutions on equity.
- Declining focus on transit alone: By my count, just 8 of 27 mobile workshops and only 27 of 82 classroom workshops. Zero on commuter rail.





REPORT OUTLINE



- Vancouver and area background
- Plenary sessions (Monday and Tuesday)
- Mobile Workshop: "Vancouver's Worst Zoning"
- Mobile Workshop: "Vancouverism: Past, Present, and Future"
- Workshop: "Innovate or Die: General Managers Plot the Course"
- Workshop: "Two Coasts: Driving Integrated Mobility & Regional Growth"
- Workshop: "Big and Small Data: Making Decisions for the Future"
- Workshop: "Strategies For Better Decision-Making: You Make the Call!"
- Workshop: "Decision-making Through An Equity Lens"
- Summary thoughts

VANCOUVER IS IN BRITISH COLUMBIA





 Vancouver, the city, is not to be confused with nearby Vancouver Island, on which sits the city of Victoria, nor with Vancouver, Washington, just north of Portland, Oregon.

LOVELY VANCOUVER, A PENINSULA CITY





 Vancouver is bounded on three sides by water, a geographical constraint that shaped and shapes its development.



VANCOUVER AREA IN PERSPECTIVE



POPULATION

(2017, 2018 estimates)

British Columbia 4.992 million

North Carolina 10.38 million

Vancouver 675,218

Raleigh 465,000

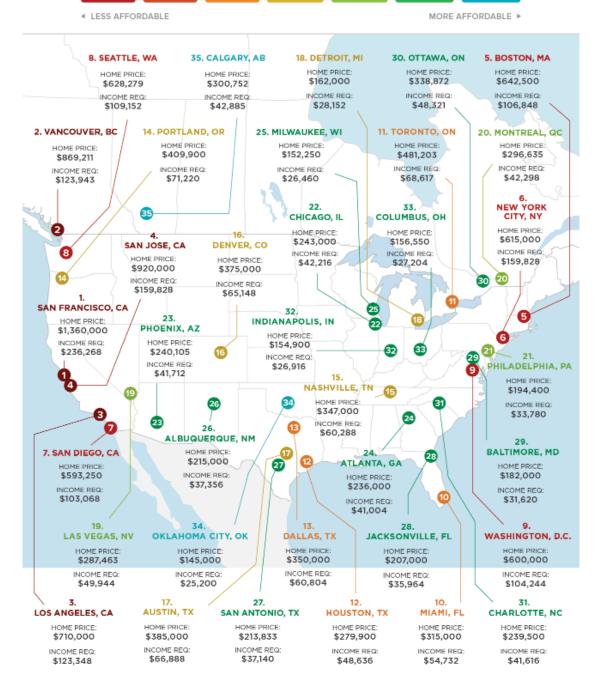
Greater Vancouver 2.463 million

Raleigh-Durham-Chapel Hill CSA 2.20 million "Vancouver has the second most expensive housing in North America (behind San Francisco), but is 50th in income level."



DIFFERENCE BETWEEN ACTUAL AND REQUIRED INCOMES

OVER -\$50K -\$25K TO -\$50K -\$10K TO -\$25K \$0 TO -\$10K \$0 TO +\$10K +\$10K TO +\$25K





"Vancouver has the second most expensive housing in North America (behind San Francisco), but is 50th in income."

https://dailyhive.com/vancouver/ vancouver-most-expensivehousing-market-canada-2019

VANCOUVER FUN FACTS



- Vancouver's cruise ship terminal is the 4th largest in the world. Most of the ships departing from the terminal are headed to Alaska.
- The Port of Vancouver is the largest port in Canada and the third largest in North America in terms of total tonnage moved in and out of the port.
- The British Properties in West Vancouver was originally a neighbourhood for upper class elites. Residents were required to have a British passport and excluded nonwhite and Jewish people. Fortunately, it has become much more diverse these days.
- Vancouver's Stanley Park is 10% larger than Central Park in New York. One of the most popular ways to explore it is during a bike ride or walk along the famous Seawall.
- Vancouver has the highest real estate prices in Canada and is the third least affordable major metropolitan real estate market after Hong Kong and Sydney, Australia.
- 40% of Vancouver's total population is made up of immigrants. The city has also the highest proportion of Asians per capita of any North American city.
 Vancouver's historic Chinatown is one of the largest in North America.
- The eco-activist group Greenpeace, one of the most successful environmental groups worldwide, was founded in Vancouver 1971. A group of volunteers first met in Gastown's Luna Café, which is now known as Smart Mouth Cafe.

- Vancouver is a very young city. It was only incorporated in 1886 and thus shares the same anniversary with the founding of Coca-Cola. On June 13 1886, the Great Vancouver Fire burnt down the city and only a few buildings survived the fire.
- Vancouver is one of the only major cities in North America where you cannot find a freeway access downtown.
- The Marine Building on 355 Burrard Street used to be the tallest building in the British Empire.
- Vancouver has recently been named the third most livable city in the world, after Melbourne and Vienna. The index considers 30 factors related to safety, health care, educational resources, infrastructure and the environment.
- BC Place was the first covered stadium in Canada. The retractable roof is 7500 square metres and is the largest in the world.
- Vancouver and Victoria have the mildest climates in Canada. As pleasant as this may be, Vancouver also sees an average of 1457mm of rain with an average of 165 rainy days per year.
- In fact, the city contains some of the wealthiest neighbourhoods in all of Canada, the wealthiest being West Vancouver. The average annual household income is \$120.000 compared to Metro Vancouver's average of \$63.000. Many movie stars, corporate executives and wealthy people live here in stunning homes along the waterfront.



YOU KNOW YOU'RE IN VANCOUVER WHEN...

- Your co-worker tells you he has eight body piercings, but none are visible.
- You make well over \$100,000 and you still can't find a nice place to live.
- You think anyone who drives a car to work is decadent.
- You keep a list of companies to boycott.
- You would never dream of crossing a picket line.
- You realize there are far more Rainbow flags in the city than Canadian flags.
- The guy who cuts your hair is straight, and your plumber is gay.
- Old friends you haven't talked to in years suddenly call and ask, "Do you have a spare bedroom for a weekend?"
- You can't remember...is pot still illegal?
- You go to your office manager's baby shower.
 The parents are named Judy and Amber.
- You give a "thumbs up" gesture to a car with a "FREE TIBET" bumper sticker and you mean it.

- You have a very strong opinion where your coffee beans are grown, and are willing to fight about it.
- A really great parking spot can move you to tears.
- A man walks downtown in full leather regalia and crotchless chaps, but you don't notice.
- You curse those damn tourists, but always stop to help a cute person who is looking puzzled at a city map.
- Your child's 3rd grade teacher has a nose ring and is named "Breeze".
- You are thinking of taking an adult education class, but you can't decide between a Yoga, Channeling, or Building Your Web Site class.
- Your new neighbours go to temple, but you are still not sure if they're Jewish or Buddhist.
- You own an expensive Gore-Tex mountaineering jacket and wear it 90% of the time.
- You run the risk of being trampled by all the running clubs out at 8am on Sunday morning.
- Your choices for vegetarian food aren't limited to the salad bar at Bonanza.

CANADIANS LOVE NICKNAMES



NICKNAMES FOR CANADA

- Great White North Because Canada is an expansive, northerly (even arctic!) country that experiences long, harsh winters.
- Borealia Refers to the aurora borealis, or the 'northern lights,'.
- Canadia Plays on Canadian.
- Canuckia Canadians are sometimes referred to as Canucks, so this is the nounal form of that nickname.
- Lumberjack Country Known for its large lumber industry, Canada is said to be full of lumberjacks.
- The North Refers to geographical location.
- England's Castoff Country Canada used to be a colony of England until their independence in 1867.
- Nova Britannia New Britain, since Canada was a protectorate of England.
- Land of Maple Syrup Maple syrup is a major export of Canada due to the prevalence of maple trees.
- America's Hat Canada sits geographically on top of the US, like a hat.
- Cold Mexico Because Canada border the US, this nickname conflates American neighbor Mexico.
- Victorialand An original proposal for the official name of Canada in honor of Queen Victoria, who granted the charter.
- Ursalia Derived from the Latin word for 'bear,' literally "land of bears."

LOOKING NW FROM YALETOWN TO DOWNTOWN



NICKNAMES FOR VANCOUVER AND B.C.

- Cariboozer denotes someone from Cariboo Country in British Columbia
- Rain City Vancouver receives a crazy amount of rain, on average about 47.2 inches a year!
- Hollywood North Vancouver is the 4th largest film towns in North America, after L.A., NYC, & Toronto.
- The Big Smoke Due to the heavy fogs which blanket the area, as well as pollution from sawmills and other industries.
- Vansterdam Similar to Amsterdam, Vancouver is known for its relaxed attitude about recreational drug use, mostly marijuana.
- No Fun City Vancouver has long been chided for having a lacking music scene and a lame nightlife.
- Blandcouver Used self-deprecatingly to draw attention to the lack of diversity.
- Van Diminutive of the formal name.



VANCOUVER TRANSIT: TRANSLINK

 Translink offers a dense network of buses overlaying a backbone of high capacity, high frequency commuter and rapid rail.



- With no highways into the city, transit is critical to Vancouver mobility
- 90% of Vancouverites live within 10 minutes of frequent public transit
- In 2018, 52.8%
 of all trips were
 made by
 walking, cycling,
 and transit up
 from 48.4% in
 2017

Rail-Volution

VANCOUVER FREQUENT TRANSIT MAP

At least every 15 minute service all day, but rapid transit trains (SkyTrain lines) run as
often as every 2 minutes during peak periods, and some buses run almost as often at peak.





VANCOUVER RAIL TRANSIT, THE BACKBONE SERVICES

- Rapid rail transit, called SkyTrain, runs underground in midtown and forms the backbone of the TransLink transit system, which includes a dense network of heavilypatronized bus routes
- SkyTrain includes Expo Line and Canada Line
- Canada Line to YVR = 147,000 daily riders
- The Expo Line = 300,000+ daily riders
- West Coast Express is commuter rail transit



Rail-Volution

VANCOUVER COMMUTER RAIL: WEST COAST EXPRESS

- Translink's West Coast Express (WCE) is western Canada's only commuter rail line
- Operated since 1995, it carries over 10,000 riders per day on long trains, all SRO.
- Single line of eight stations running 69 km (43 miles) to Waterfront Station in the CBD
- WCE is unidirectional, Monday to Friday only, running a mere five inbound trains to Waterfront Station in the morning and five outbound trains in the evening.





- WCE operates in mixed freight-passenger service on Canadian Pacific Railway's (CP) mainline.
- Though trains are standing room only, has not expanded due to the inability to secure passenger rail time along the busy CP mainline without significant infrastructure capacity improvements.
- CP naturally gives precedence to its everincreasing freight operations, which are especially congested due to heavy Port of Vancouver traffic.

VANCOUVER SKYTRAIN TRANSIT





- Canada Line (2009) and Expo Line (1985) trains are driverless (fully automated) and run on 3 minute headways peak, sometimes just 2 minutes apart
- Very easy way to get to and from the YVR Airport
 - Trains are clean, safe, comfortable, and convenient



VANCOUVER BUSES IN ALL SHAPES & SIZES, BUT NO BRT





 Lots of electric buses powered by overhead catenary



- Peak period buses are frequently at capacity
- 99 B-Line Express Bus = 55,900 daily riders, North America's highest bus ridership





- Lots of diesel and CNG buses, too, many of them articulated
- No BRT in Vancouver

MONDAY PLENARY – LOCAL LEADERS & EARL BLUMENAUER

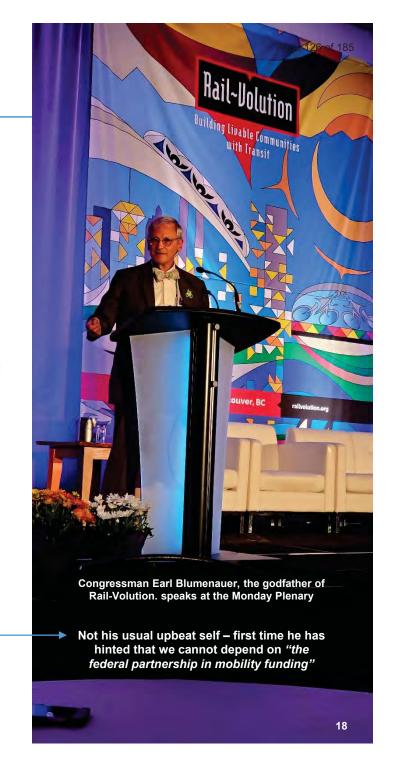
Local leaders

"Increasing transit is critical to achieving social equity & justice"

- Automobile mode share less than 50% for the first time and 18% growth in transit ridership (17% transit, 29% walk)
- Attributed to not permitting highways into Vancouver, preserving the "town centre" model, and especially to a "consistent effort to grow and improve transit" – must continue
- High cost of housing is Vancouver's biggest problem, resulting in pricing out the very people transit is supposed to serve
- Grappling with how to adapt to ride-share, how to adapt to AV, and how to aim for greater mobility over gridlock

Congressman Blumenauer

- Impacts of gentrification with transit, urbanization, and affordability are clashing with "a changing era in federal government" (meaning declining commitments to cities)
- Praised Minnesota for abolishing single family home zoning exclusions, and again, as every year, craved a gas tax increase



MONDAY PLENARY MOTIVATIONAL SPEAKER – ROGER HASKETT ON ENGAGEMENT



"This is the 'Age of Engage" and the rise of the citizen participant."

"Nothing predicts success like citizen engagement!"



HASKETT'S RULES OF ENGAGEMENT SUCCESS

- Step up (if you are introverted) or step back (if you're an extrovert) – so as to encourage everyone to participate
- Misery is optional (be happy!)
- Movement is necessary (sitting is the new smoking)
- The more fun you have, the more fun they have
- Smile and say hello (the "10/5 way" – within 10', smile; within 5', say hello)

TUESDAY PLENARY – PLANNING HOUSING & TRANSIT TOGETHER



- Near-universal conundrum of how to improve housing around transit to combat the affordability crisis
- Kickoff speaker Andy Yam set the stage: Vancouver suffers "displacement" despite having "affordable, acceptable & dependable" transit:
- 66% of new houses built are for C\$100,000 incomes
- 31% of income to housing in 2017
- Million dollar (C\$) homes: 23% in 2014 to 73% in 2018
- Million dollar (C\$) homes with "transit mortgages": 43% in 2014 to 92% in 2018
- 21% of new houses built are within 400 meters of a SkyTrain station
- What's needed is "Transit-Oriented Affordable Housing"
- That was the segue into a fourperson panel discussion



TUESDAY PLENARY – PLANNING HOUSING & TRANSIT TOGETHER (cont'd)



- Panel consisted of three non-business folks focused on "social justice" issues and one housing developer whose current projects all include "belowmarket residential"
- Developer, when asked what housing policies were working well for the community, said there was "a great potential for below-market housing," thanks to Vancouver zoning practices



- Answering the same question, the first three talked about "income displacement," "transit-oriented displacement," "transit-oriented gentrification & displacement," and how current housing and transit policies are "weaponized against the under-privileged" and the "lifelong poor who are dependent upon transit" for mobility; in other words, painted a bleak picture of the outlook for the community
- The developer had little to say henceforth as the other three articulated their views on the reasons for gentrification, such as "bringing transit to poor people makes property values rise" and the fact that "high capacity rail transit leads to new housing construction that excludes the poor"
- When asked what is the ideal transit to counter those negatives, Toronto's "anti-displacement toolkit" was cited, which was said to "start with an audit of policies that injure equitable outcomes"

TUESDAY PLENARY – PLANNING HOUSING & TRANSIT TOGETHER (cont'd)





- Panelists said Toronto "resists prescriptive solutions" by "rejecting ideals as a right," instead developing "customized [land use] solutions based on the character of individual neighborhoods"
- One of three proponents of equitable solutions admitted, however, that "any building displaces someone," a reality that seemed to bring the discussion back to earth, and the same speaker expressed her belief that "no ideal solution" exists
- Another panelist noted, however, that the last decade of "market-based housing construction didn't work," that "displacement doesn't make sense," implying that the government should counter the free market to assure equitable outcomes
- All panelists criticized "using housing as hotels [Airbnb]"
- Asked what government needs to do specifically, the developer stated that the "cost of capital is a variable to induce affordable housing," and went on to say that "the biggest [housing] problem is the price of land due to speculation," suggesting government action, such as "rental rezoning" to discourage speculation
- In closing, panelists decried appeasing NIMBYs, proclaiming that "housing and transit are human rights," and that government needs to "reclaim their responsibilities to [guarantee] those rights" because "transit is about freedom of movement"

Rail-Volution Building Livable Communities

MOBILE WORKSHOP – VANCOUVER'S WORST ZONING

- "Northwest of Point Grey" (NWPG) is one of Vancouver's toniest "One-Family Dwelling" (RS-1) neighborhoods
- RS-1 is common in Vancouver
- "Apartments and townhouses are illegal on most of Vancouver's residential land."





- NWPG consists of 151 acres with a population of 402, or about 0.38 acres/person
- Vancouver's very desirable "West End" neighborhood (just west of downtown) consists of 504 acres with plenty of green space and a population of 47,198, or about 0.01 acres/person
- At West End's density, 14,000 people could live in NWPG where 402 live now
- NWPG is just one of many RS-1 neighborhoods

Rail-Volution Building Livable Communities

MOBILE WORKSHOP – VANCOUVER'S WORST ZONING



 Our workshop leader is part of "Abundant Housing," the Vancouver YIMBY group





- A good many of the RS-1 lots in NWPG are empty or in need of refurbishment because of the rampant land speculation in Vancouver
- 75% of Vancouver is zoned RS-1, on which only 33% of the population liv

Rail-Volution Building Livable Communities

MOBILE WORKSHOP – VANCOUVER'S WORST ZONING





- A badly-needed SkyTrain extension from downtown to UBC (University of B.C.) is opposed by NIMBYs in NWPG even though it will run nearly a mile away because "don't want UBC students or the unwashed having access here" despite the many buses that run over-full in the same corridor now
- Most expensive Vancouver residence is here (C\$52 million); more modest NWPG homes go from C\$4 million to C\$12 million
- Largest non-sub-dividable lot (3 lots together) valued at C\$65 million is owned by 3 numbered corporations (meaning anonymous land speculation)
- Yet the housing crisis continues to escalate





- 3.5 hour walking tour of the West End and Yaletown neighborhoods
- West End stops 1-4
- Yaletown stops 5-6
- Our guide, a senior city planner, was exceptionally wellinformed on the history as well as the zoning, and was a good raconteur
- It rained steadily for much of the workshop
- I had the foresight to take an umbrella
- Some did not



- The West End begins west of Robson Street, a N-S street that connects downtown to Stanley Park
- We stopped first in one of the E-W blocks that have been converted into pocket parks, serving the
 dual purposes of making West End more walkable/bikeable and as a traffic calming device
- · Walking mode share in West End is an astounding 82%, with a negligible transit mode share



Rail-Volution

Building Livable Communities
with Transit

- West End was Vancouver's first expansion beyond downtown in the 1880s, with a grid pattern of 66' streets and 33' alleyways, much still in place
- Became a high density experiment in the 1950s, resulting in over 200 harsh
 Soviet-style concrete high-rises, which are now good affordable rental stock



Much of the low-rise housing remains, and today
West End is the inspiration for what's called
Vancouverism: highly walkable, proximate to
transit, diversity of rental and ownership housing,
with lots of green space and small parks





 82% walking mode share for West End's 46,000 population





- Because 82% of West End residents walk everywhere, transit ridership is negligible, and that's this workshop's nexus to transit:
- Since West End residents don't need transit, the measurable benefit is cost avoidance, freeing up money for transit elsewhere





- West End cannot be rezoned because, if allowed, would be entirely rebuilt within 15 years
- Critical piece to making high density urban livable is green space (as depicted here)
- 25% of new developments must be given to city in exchange for zoning





- City uses the 25% for below-market housing, parks, green space, childcare
- If lift in property value goes from \$1 million to \$3 million, developer gives 100% of lift to the city to be used for green space
- City maintains a huge real estate department to accomplish this by contracting with nonprofits for the below-market housing, daycares, etc.





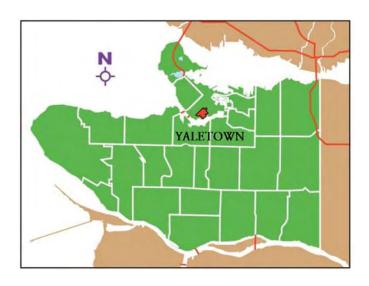
- In the West End, city has installed a number of diversions at key intersections to discourage cut-through traffic
- Downside is it affects local drivers equally, but with 82% walking mode share, not many local residents are driving
- Wouldn't work in car-dependent neighborhoods

- Last stop in the West End before walking to Yaletown was another oneblock pocket park like the first one we visited
- Though the concrete or asphalt street base remains, each block park has its own character and connection to community





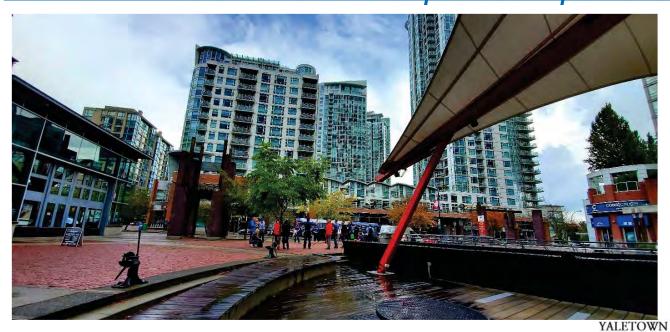
- Yaletown is built on an old rail yard, what used to be called "urban renewal"
- Though I couldn't get an accurate population figure, it is one of the densest neighborhoods in Vancouver
- Lots of below-market rate rentals, thanks to the 25% required turnover to the city
- 67% walking mode share



- Proximate to the Expo Line SkyTrain and many bus routes
- The many high-rises here all comply with the city's "view regulations" that apply to 10-30 story buildings
- Some parking is required for such buildings, but thanks to the high transit and walking modes share, just 50% of parking spaces are occupied
- High-rises to my eyes, but our workshop leader called these 30-story buildings "medium height and density"
- Lots of 20-39 year olds live in Yaletown
- Next two slides are more Yaletown scenes















• Vancouverism = fundamentally "communitization" = 110+ public meetings for Yaletown development alone

 High-rises full of social housing, solar, rooftop green space, jobs space, interspersed with residential; thus lot of live-work resulting in high walk score

 With the SkyTrain Canada Line (now ten years old), lots more similar TOD like Yaletown being built



WORKSHOP – INNOVATE OR DIE: GENERAL MANAGERS PLOT THE COURSE



- Moderator: Dorval Carter Jr., President, Chicago Transit Authority, Chicago, IL (far right)
- Tina Quigley, CEO, Regional Transportation Commission of Southern Nevada, Las Vegas, NV
- Doug Kelsey, General Manager, TriMet, Portland, OR
- Kevin Desmond, CEO, TransLink, Vancouver, BC
- Peter Rogoff, CEO, Sound Transit, Seattle, WA



WORKSHOP – INNOVATE OR DIE: GENERAL MANAGERS PLOT THE COURSE



<u>Author's note</u>: Considering the aggregate CEO brainpower and experience in this workshop, I expected more. I was disappointed that it seemed shallow and disjointed, with little helpful advice. Skip these next two pages if you want.

- Seattle (Sound Transit) is building 46 miles of LRT with 50 stations, 91 miles of CRT, and BRT connecting 12 cities, but it's not enough by far and cannot measure effectiveness of the investment by answering this question: "Are ridership increases due to population growth or organic growth?"—Rogoff
- TNCs (like Uber & Lyft) are causing ridership to fall (21% decline in Las Vegas since 2015)
- Seattle congestion is causing bus network to fail because bus-only lanes are being violated, and "you can't stop it"
- · Rail networks can't & won't keep up with ridership demand
- How to management partnerships for growth; for instance, TOD condos go for 10-20% more because of proximity to rail stations, yet developers do not pay a share of rail transit
- Some transit agencies have to deal with "entrenched culture"
 as growth skyrockets, while others, like Seattle "have so many
 new employees that the agency has no organizing principles and
 are pushing out core values to staff to communicate common
 goals"

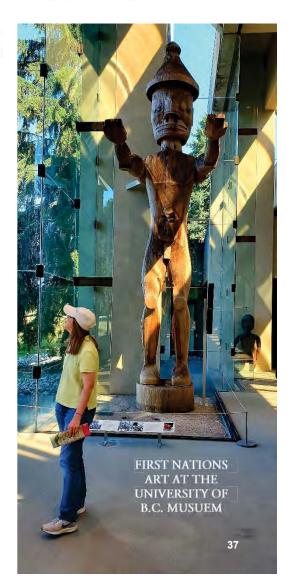


WORKSHOP – INNOVATE OR DIE: GENERAL MANAGERS PLOT THE COURSE



"Change is inevitable; it's true that you must 'innovate or die' to respond to simultaneous challenges" – CEOs

- "Hard to get different internal transit agency functions to understand how their jobs relate to core services"
- Lots of problems, but what are solutions to these problems?
- Portland is attempting to transition from being strictly a transit authority to a "mobility service" [undefined]
- Success depends upon controlling culture change within the transit organization – "Everybody owns innovation"
- Lots of room for improvement: U.S. transit mode share is 4.2% versus 39% in Vienna
- Use private sector to develop transit apps, but retain ownership of the data while sharing it (open data) "Don't see the private sector as the enemy"
- To boost ridership, "make way-finding easier" Rogoff
- Others say transit must be faster and more reliable than driving
- Rogoff stresses that transit CEOs "must recognize that we [transit agencies] are an important force for affordable housing"



WORKSHOP – TWO COASTS: DRIVING INTEGRATED MOBILITY & REGIONAL GROWTH



This workshop presented two views on transportation and land use integration from cities a long distance apart, Miami and Vancouver.

- Miami is the 4th largest U.S. metro area (6 million)
- Miami-Dade TPO (Transportation Planning Organization created what its calls its "SMART" plan
- Includes 25 miles of CRT in 6 corridors
- With 6 concurrent projects, wanted to recognize land use in the LPA (locally preferred alternative) so that "land use wouldn't be chasing the mode"
- Created TOD typologies, including job centers at critical junctions where rail met major roads
- Then correlated job centers to aspirational job-work-live areas
- With 2040 data, compared doing nothing versus interrupting the natural patterns to redirect growth to transportation corridors
- Were realistic about reallocating population growth (140,000 new people expected in this one corridor) by carefully conducting lots of public engagement: "Must engage communities to get buy-in"
- Long-term results are not yet available



WORKSHOP – TWO COASTS: DRIVING INTEGRATED MOBILITY & REGIONAL GROWTH



- Vancouver has an established practice of successfully integrating transportation and land use
- Mode share actual and projected data for 2008, 2020, and 2040 shows that private automobile mode share % doesn't change, while walking, biking and transit mode shares all rise
- 2040 plans call for no more roads than now
- Target for doubling transit has been moved up ten years from 2040 to 2030 due to accelerated population growth



- Because Vancouver population is expected to double by 2041, city has adopted the 6 BIG MOVES above
- Note the first BIG MOVE to accommodate population growth is "Rethinking Single Family Areas"
- This is the first adopted citywide plan to accommodate growth in history now being scoped
- The city asked its citizens to consider: "What will life in Vancouver be like in 2050 for a baby born today?
- · Lots of public engagement to find out what Vancouverites value to come up with a "common vision"
- · Grappling with one finding that most "don't want the high density that goes with transit investment"

WORKSHOP – BIG AND SMALL DATA: MAKING DECISIONS FOR THE FUTURE





- Before using people's data, Seattle examined 3 of its 6 core values (equity, safety, mobility) to develop a "Public Life Data Protocol" so that data analytics studies could be conducted fairly and be comparable
- Advise establishing benchmark data to inform decision-making
- Analyze based on land use data and transportation network investment; e.g., where best to build light rail (did not mention ridership data in that decision)
- "Small data" derived from cell phones indicate 58% of time is spent idle, waiting for transit; therefore, transit stops are a poor use of public space
- This is a huge drain on public investment want to use data to create lively great places for community life which will justify large investments in public transit
- Big data (Streetlightdata.com) can transform old mobility; e.g., 30% of U.S. adults allow passive data collection on their devices (location and speed data)
- Caltrans uses census track data to measure demand for bicycles
- TNC study to/from transit stations ("gig driving")
- Industry is addressing how to use data "correctly and not erroneously" [no explanation what that means in context]



WORKSHOP – BIG AND SMALL DATA: MAKING DECISIONS FOR THE FUTURE





- Urban Footprint seeks to "map, measure, and analyze the data of place"
- Combines land use data normalized for entire United States
- For instance, the data can be used to address the housing crisis in the Bay Area – shows 94% of land used for detached single family homes
- Amazon is rendering land use for shopping centers obsolete
- Urban Footprint analyzed the entire 43 miles of El Camino Real highway between San Francisco and San Jose and determined that existing retail, if converted to 3-4 story residential, would create 250,000 new places to live
- Joint Urban Footprint data and Streetlightdata.com project underway at Los Angeles Union Passenget Terminal (LAUPT) to inform decision-making
- Workshop presenters optimistic that "unlimited uses possible [of joint data analysis like this], such as how best to utilize land"
- Author's bottom line: A superficial look at big and small data of very little value

WORKSHOP – STRATEGIES FOR BETTER DECISION-MAKING: YOU MAKE THE CALL!



- A fun, hands-on workshop which divided up into six tables, each with a different set of problems related to
 transit projects, and asked us to come up with possible solutions; my table's hypothetical was a NIMBY
 group against reuse of parking lots at stations to increase affordable housing because they oppose density
- DOLRT was mentioned several times in this workshop as "an example of failure because they didn't manage Duke"; I corrected the leader's perception in front of the group saying it was much more complex than that
- DOLRT was mentioned in several other workshops, too, always over-simplified in a myth of failure



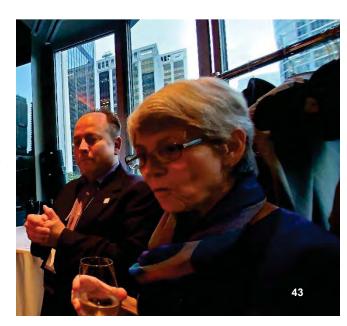
WORKSHOP – DECISION-MAKING THROUGH AN EQUITY LENS



- Panel of three plus a moderator attempted to explain what "equitable development" means
- I attended this workshop because I wanted a clearer understanding of "equitable outcomes" than I got coming away from the Tuesday plenary panel discussion on the same topic (see those slides above)
- · I did not achieve my goal in this workshop any better than I did in the Tuesday plenary session
- Someone asked (politely and innocently) if "equitable development" was an oxymoron; the answer given was
 no, that cities "need comprehensible strategies for intentional housing"
- What exactly that meant was not spelled out in a way I could understand, nor was the term "equitable outcomes" translated
- The terms strike me as more existential than concrete public policy



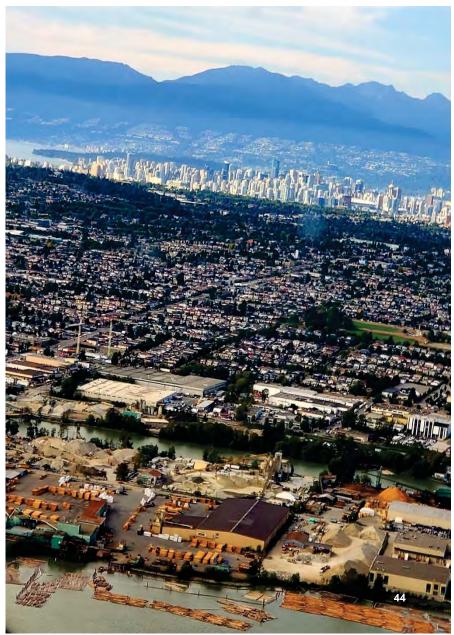
We had an opportunity to discuss some of the challenges of commuter rail with former NCDOT-Rail Division Director Paul Worley, now with Mott MacDonald



SUMMARY THOUGHTS



- The Vancouver R-V conference was, like the ones I've attend in past years, a valuable learning experience.
- However, the conference has moved farther away from transit and more into land use issues than ever before, resulting in many workshops having no nexus to transit. None, for instance, on commuter rail.
- Affordable housing in Vancouver, as in San Francisco, is the gorilla in the room, such a huge problem that a paradox now exists in making decisions about extending high capacity, high frequency transit lines:
- Everywhere more and better transit is extended sees dramatic rises around stations in already-high property values. Thus, below-market income residents do not welcome better transit, even though they need it.
- However, no generally accepted solutions yet exist, with no balance of interests yet achieved.
- Like most places experiencing high growth and prosperity, zealous NIMBY opposition to density and development continues to oppose many transit projects. As mentioned in every year's report, this has become a cultural norm. Such opposition from affluent neighborhoods is almost always effective. A balanced outcome is rarely achieved.



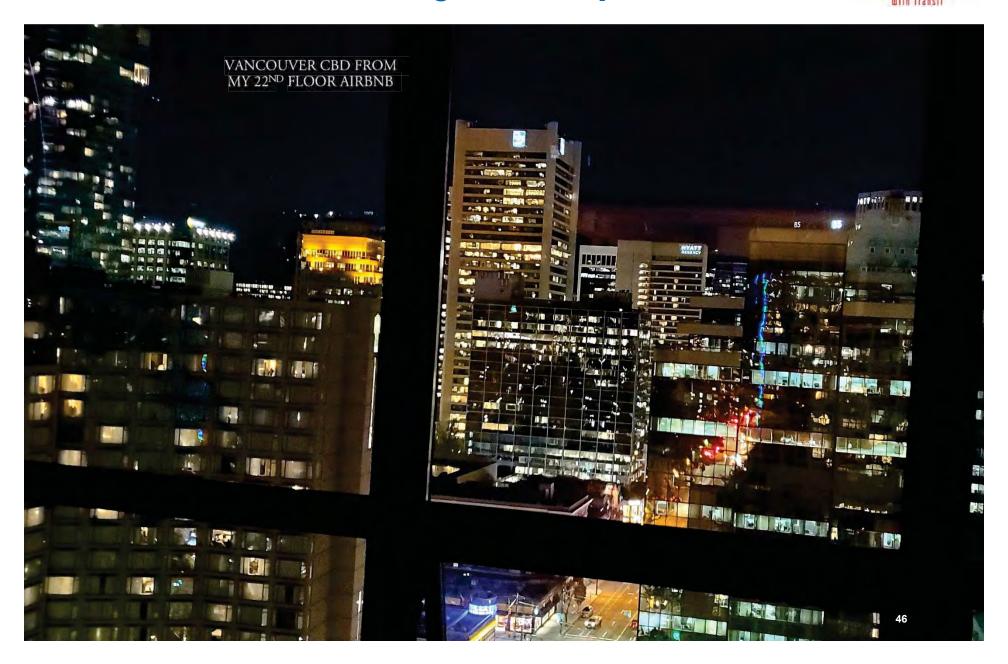


QUESTIONS, COMMENTS? (gratuitous picture 1 of 5)





QUESTIONS, COMMENTS? (gratuitous picture 2 of 5)





QUESTIONS, COMMENTS? (gratuitous picture 3 of 5)





QUESTIONS, COMMENTS? (gratuitous picture 4 of 5)





QUESTIONS, COMMENTS? (gratuitous picture 5 of 5)





Board Member Conference Report

Board members are required to prepare a written conference report for each event attended on behalf of GoTriangle. Board members may complete the Board Member Conference Report form or prepare a narrative report covering all the areas on the form. The report shall be included in the agenda for the next regular meeting of the Board of Trustees. Attachments (such as the conference agenda, handouts or other materials you feel are valuable, and photographs) to this form or your written report are encouraged.

Board Member:	Ellen Reckhow
Conference Attended:	Rail~Volution 2019
Dates:	September 8-11, 2019
Location:	Vancouver, Canada
Conference Theme:	25 Years and Counting!

Reason you chose to attend this conference and was your objective met?

Rail~Volution is the best organized, most informative conference that I attend. Since I had not attended in 3 years, I was eager to get re-engaged and it did not disappoint. The quality of the mobile workshops, plenary sessions, and workshops were excellent. In addition, Vancouver serves as an excellent setting since the city has been on the cutting-edge of land use and transit practices.

General Summary of the Conference:

Rail~Volution 2019 appeared to represent a reboot where there was a great deal of discussion of lessons learned in the past 25 years and the need to approach problems differently. There was a lot of focus on equity, authentic engagement (instead of citizen participation), and affordable housing. Many speakers mentioned the unintended consequences of light rail leading to gentrification and creating winners and losers. There was a focus on the need to view all projects through an equity lens and consider unintended consequences.

The first plenary focused on engagement. Citizens need to be actively engaged and listened to regarding projects that affect their lives. We need to consider non-traditional approaches and focus on restorative justice and reconciliation, particularly where previous governmental projects had negative consequences.

The second plenary focused on affordable housing and the need for creative thinking around this very difficult issue. Unfortunately, Vancouver is the poster child for gentrification. In recent years, they have started to harvest the increase in value associated with rezoning to higher densities to require developers to contribute community benefits including affordable housing back to the community. About ¼ of the housing units in a new residential building are required to be "social units" with lower rents.

The third plenary or closing session was a good wrap up. The main point is that now is the time to pivot and address the unintended consequences of our transit investment. We need to be sure that decisions reflect the whole community and we need to galvanize collective action to

<u>address challenges.</u> The public sector needs to be more entrepreneurial with public assets and investment. Public investment in infrastructure and changing zoning create increased value that should be partially recaptured to help address inequities through community benefit agreements.

Most Valuable Breakout Session and Summary:

The breakout session Mobility Justice: Principles and Practices Advancing Inclusivity was very valuable. A faculty member from Antioch University who helped create the Untokening Principles —http://www.untokening.org - outlined these principles of mobility justice. She feels that we need a community-centered approach to equity that recognizes who has been historically left out of benefitting from public investment due to past unequal distribution of transportation benefits and burdens.

Seattle has created a \$2 M fund to help a "Transit Benefit" district that has provided about 1500 housing authority residents with free transit passes as a way to direct resources to very low income people. It is definitely a lens that we need to consider using as we move forward with projects at Go Triangle.

After attending this conference, I'd like to learn more about:

At a lunchtime discussion on BRT, 3 jurisdictions presented their approach to evaluating BRT feasibility. Seattle uses geographic balance, ridership potential, network connectivity and social equity. Denver evaluates corridors on % of corridor severely congested in 2045 along with projected BRT boardings/revenue mile. Austin uses an extensive continuing process of evaluating as many as 30 corridors regularly. 19 were recently rescreened with 6 corridors selected for BRT Lite and 2 for dedicated BRT or LRT. Austin feels that BRT can handle ridership in the 10,000 – 25,000 trips/day range. BRT Lite is a nice way to start since the investment can be fairly low and then as ridership grows, the line can evolve to regular BRT.

Here's something I learned that I think GoTriangle should pursue or implement:

Mobility partnerships with ride share companies or transportation network companies (TNCs) are definitely a new hot topic. The workshop that I attended provided an overview of principles that APTA is creating to promote best practices when dealing with these companies. We may want to watch for this APTA guidance and adopt principles that will promote a partnership that is equitable, sustainable, and well integrated.

Other information I'd like to share:

During 2 mobile tours, I learned about Vancouver's extensive use of Community Benefit Agreements (CBA's) to obtain commitments from the development community to help it reach its affordable housing and other Healthy City Strategy Goals through Community Benefit Contributions (CBC's). The expectation is that 75% of the new value created through a rezoning is recaptured for the community's benefit.

https://vancouver.ca/files/cov/community-benefits-from-development.pdf; https://vancouver.ca/people-programs/community-benefit-agreements.aspx



Board Member Conference Report

Board members are required to prepare a written conference report for each event attended on behalf of GoTriangle. Board members may complete the Board Member Conference Report form or prepare a narrative report covering all the areas on the form. The report shall be included in the agenda for the next regular meeting of the Board of Trustees. Attachments (such as the conference agenda, handouts or other materials you feel are valuable, and photographs) to this form or your written report are encouraged.

Board Member:	Sig Hutchinson
Conference Attended:	Rail-Volution 2019
Dates:	Sept. 8 th – 11th
Location:	Vancouver
Conference Theme:	Building Livable Communities and Transit

Reason you chose to attend this conference and was your objective met?

Rail~Volution is the best conference of the year for interacting with professional involved in, and sessions dealing with the intersection of transit, housing, place making and building healthy communities

General Summary of the Conference:

Conference was awesome, Vancouver was the perfect venue as one of the most livable (and Expensive!) cities in the Americas. With "Equity" as a theme and particularly focused around Affordable Housing, a lot of the conversation was how do we build affordable communities where everyone has the opportunity to thrive.

Most Valuable Breakout Session and Summary:

Affordable TOD – Planning for Us All – We rode the SkyTrain to several TOD stations and it speaks to the well-known adage of, "if you have seen one TOD, then you've seen one TOD." (And they are all difficult to do successfully.) We saw three stops and they were all very different in building heights, stages of development and levels of success. Neighborhood acceptance can always be an issue in successfully moving forward on projects. One site was nowhere near where it should be from a TOD development perspective based on property ownership issues and resistance from the neighborhood. Another site where there was more site control and less neighborhood resistance had beautiful high rise mixed use, walkable areas surrounding the station. Affordability is always an issue and the earlier it can be addressed and built into design and thinking, the better.

Here's something I learned that I think GoTriangle should pursue or implement:

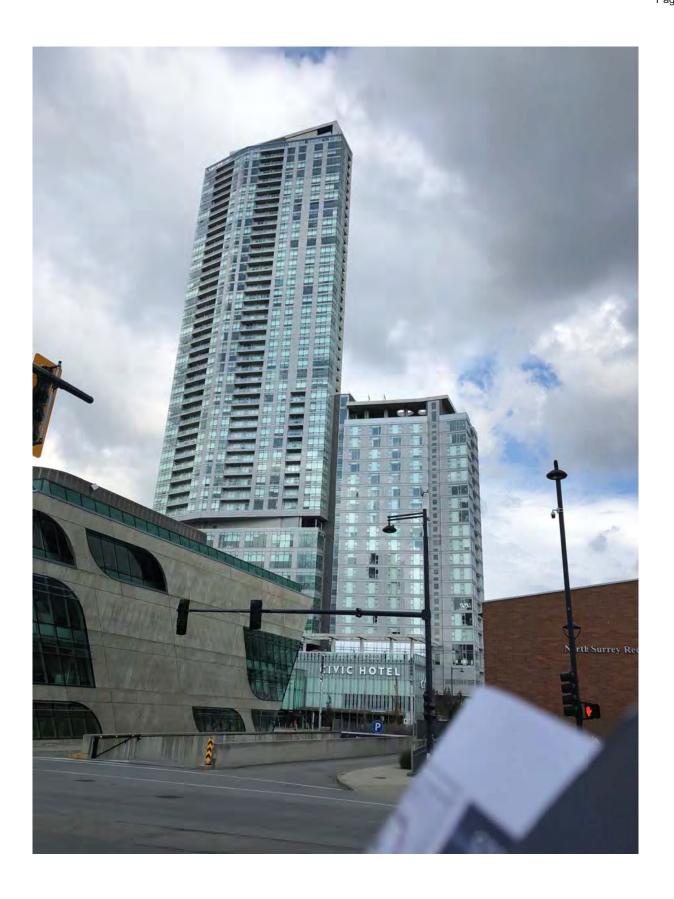
I had a chance to meet the CEO of DART (Dallas Area Rapid Transit) with 93 miles of light rail who spoke in detail about their mobile ticketing platform. It was developed by a third party that was now beginning to market it throughout the US and had all the elements we would want to be successful already built into the system. I have passed that information on to staff as an

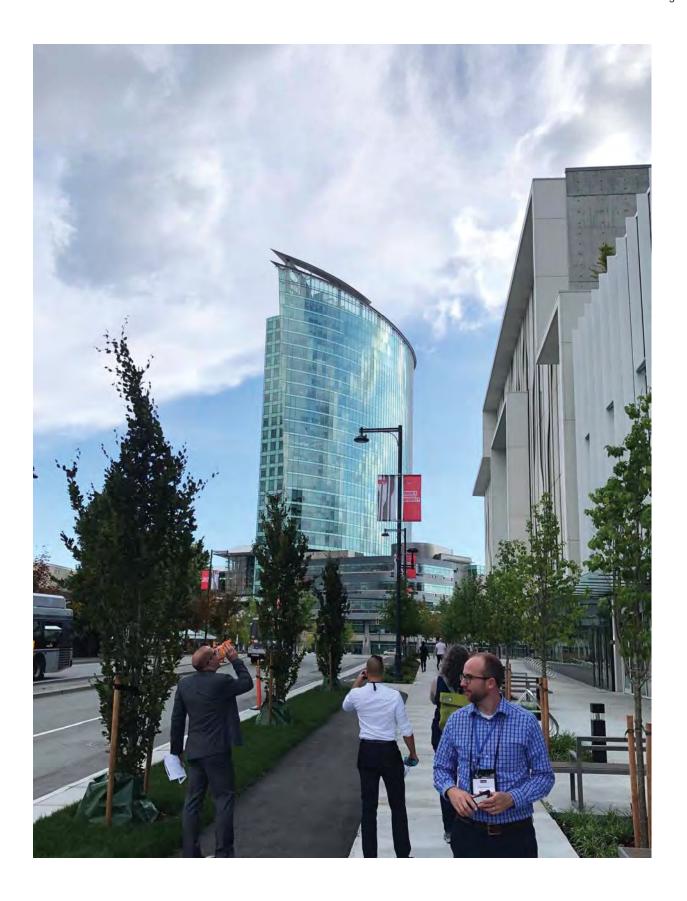
example of a successful, currently running system that could be purchased or used as a model for what we want in a system.

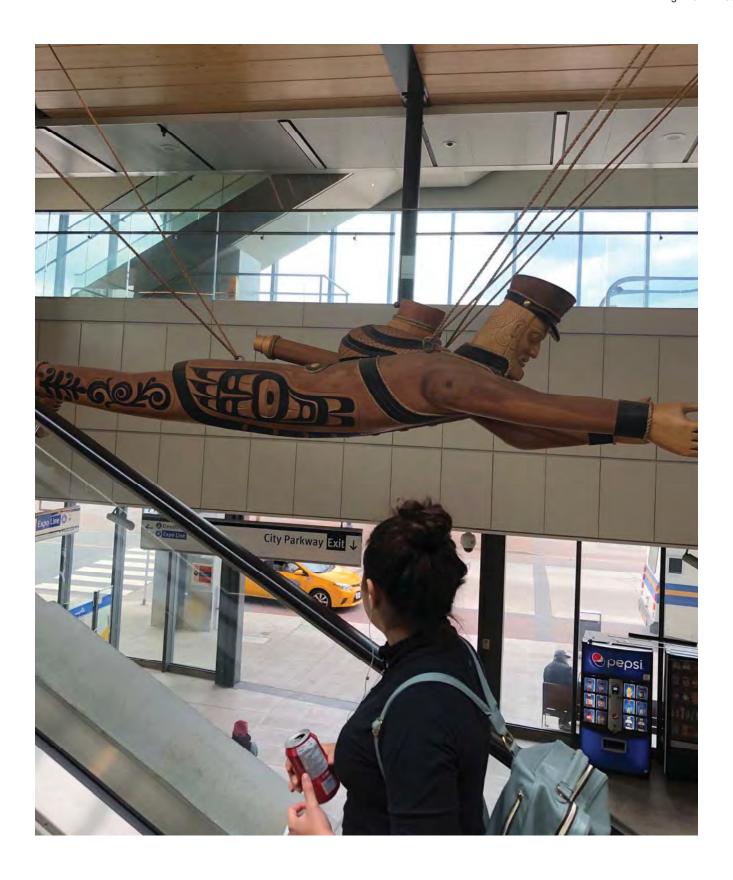
Other information I'd like to share:

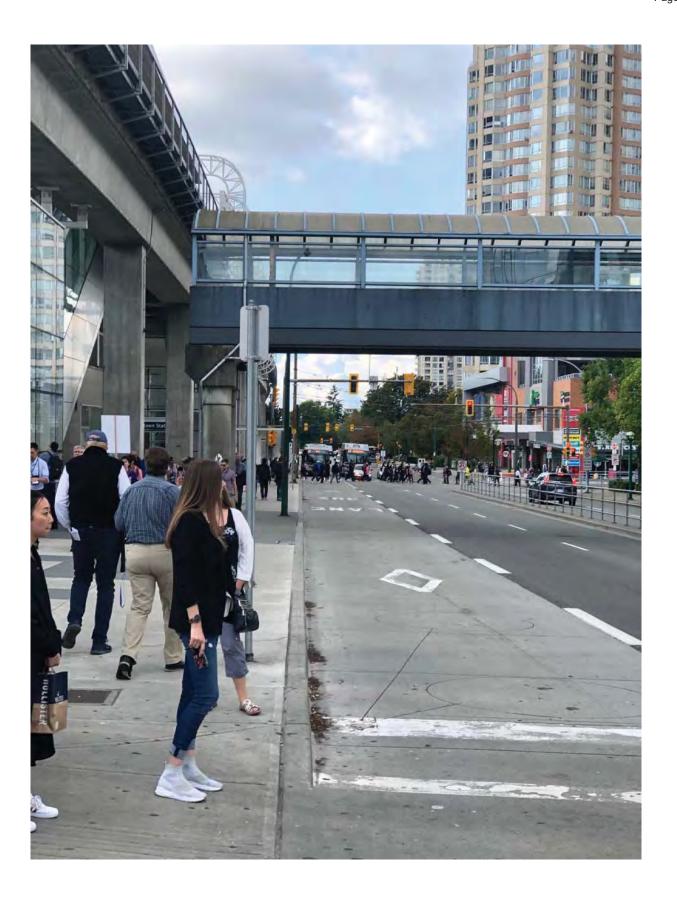
Read Will Allen's Report. Thank you Will!!!

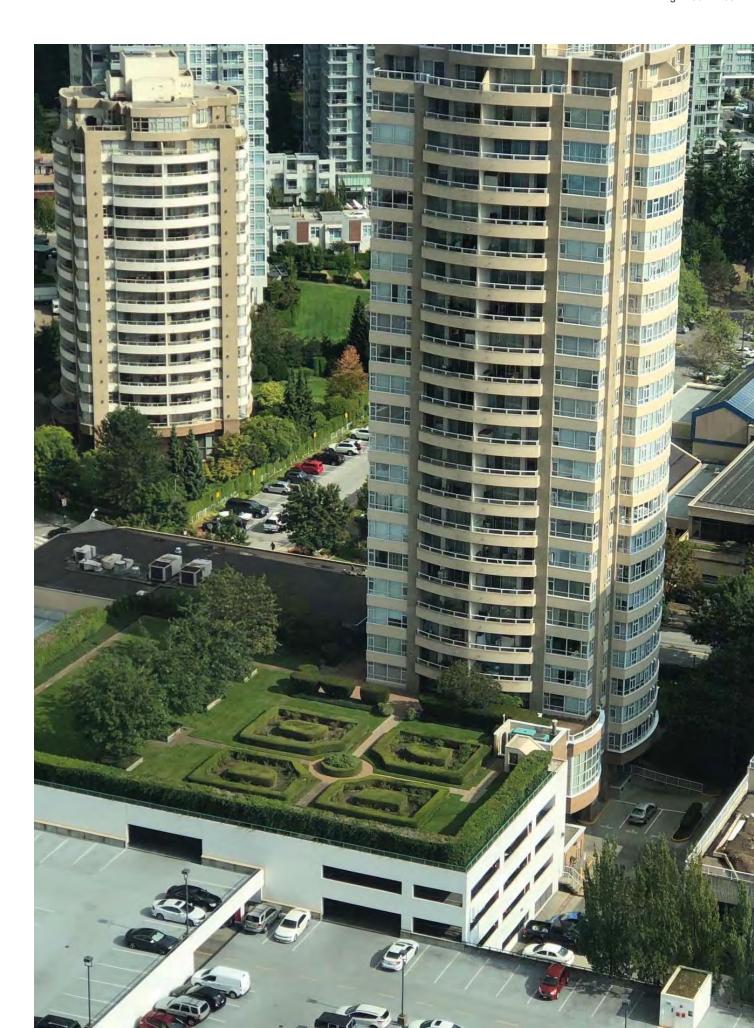
Sig Hutchinson

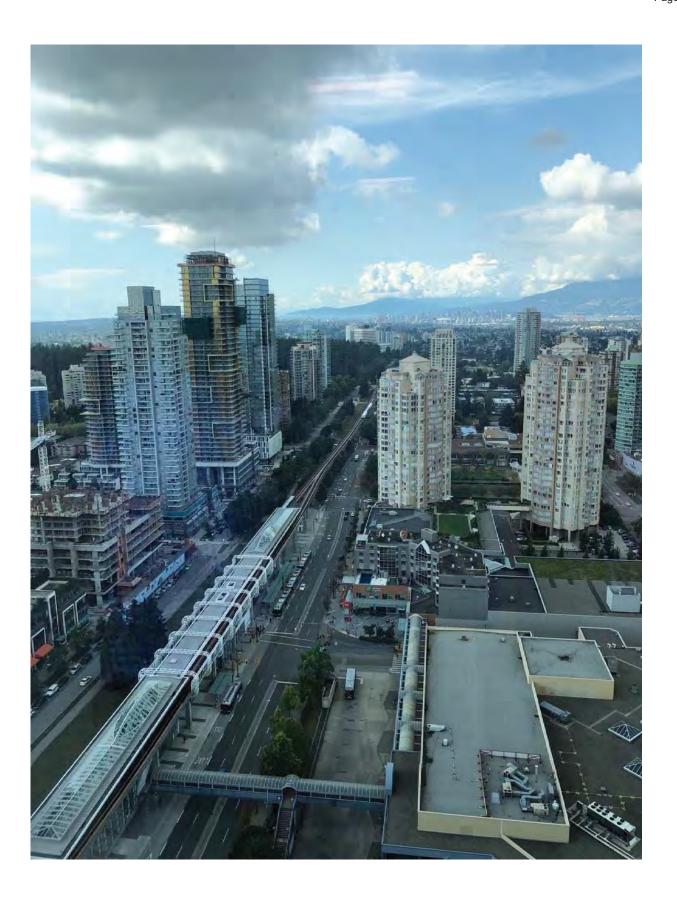


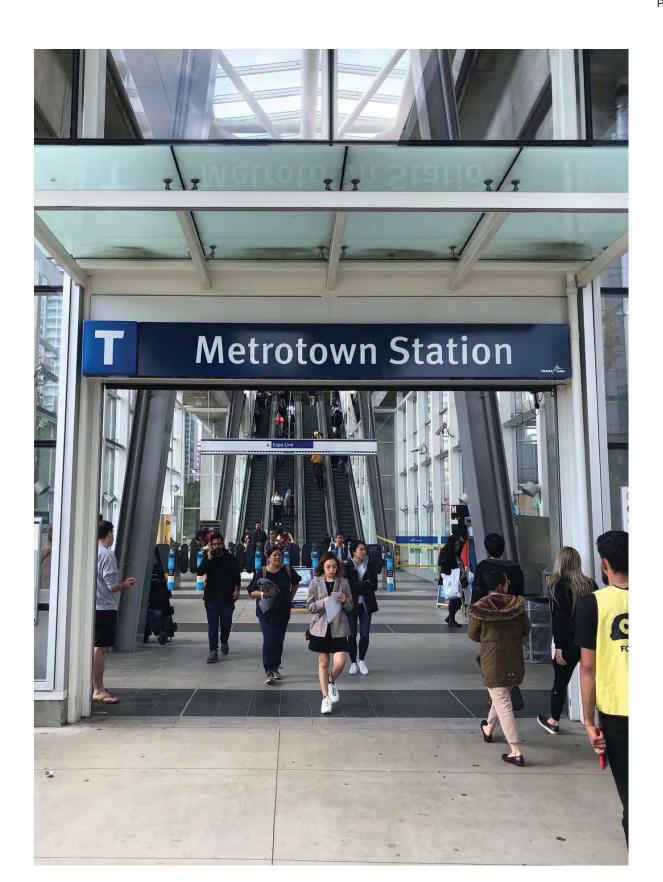


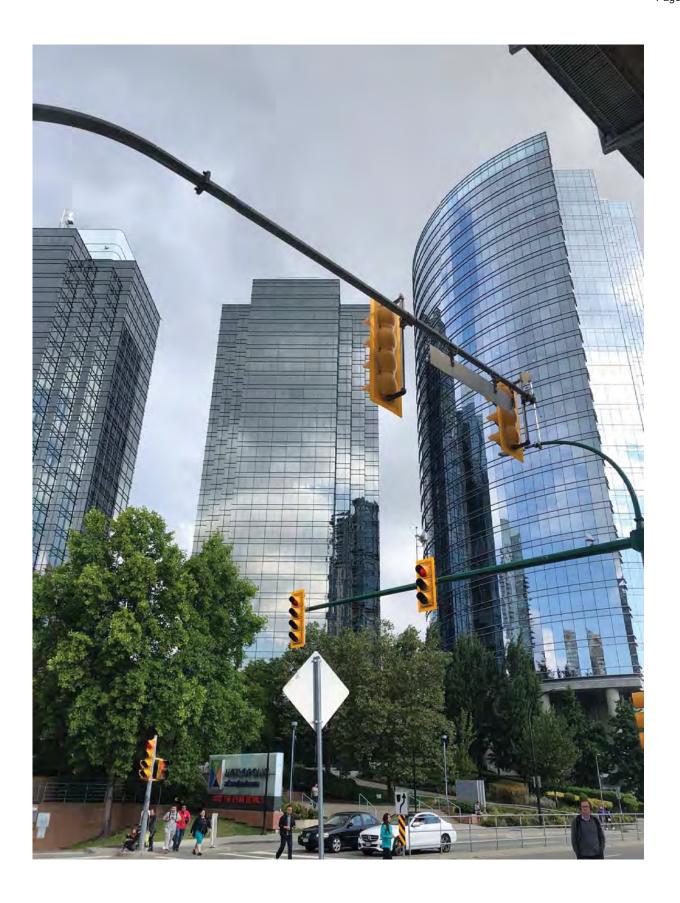




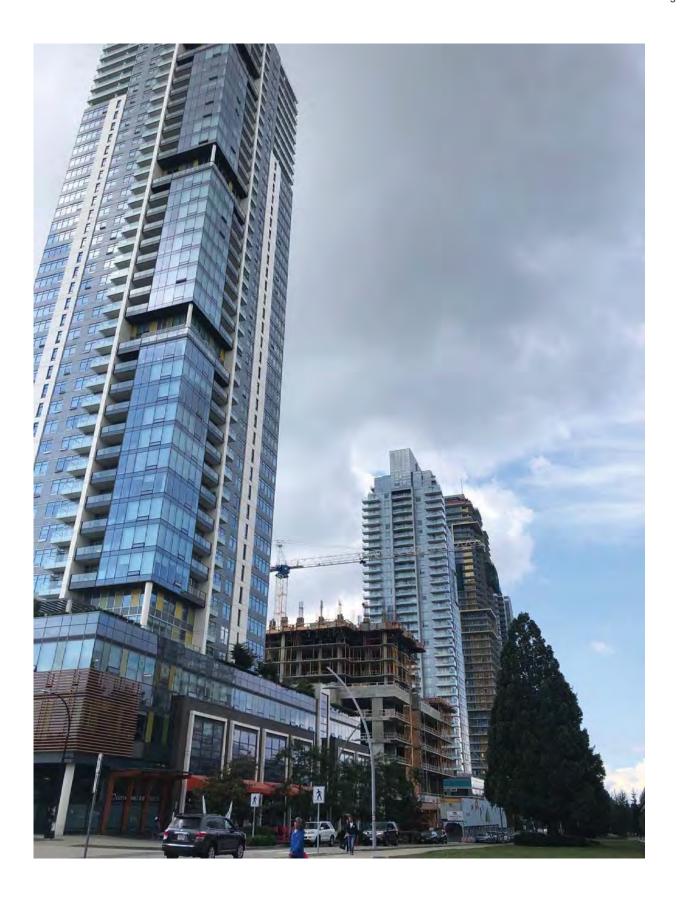




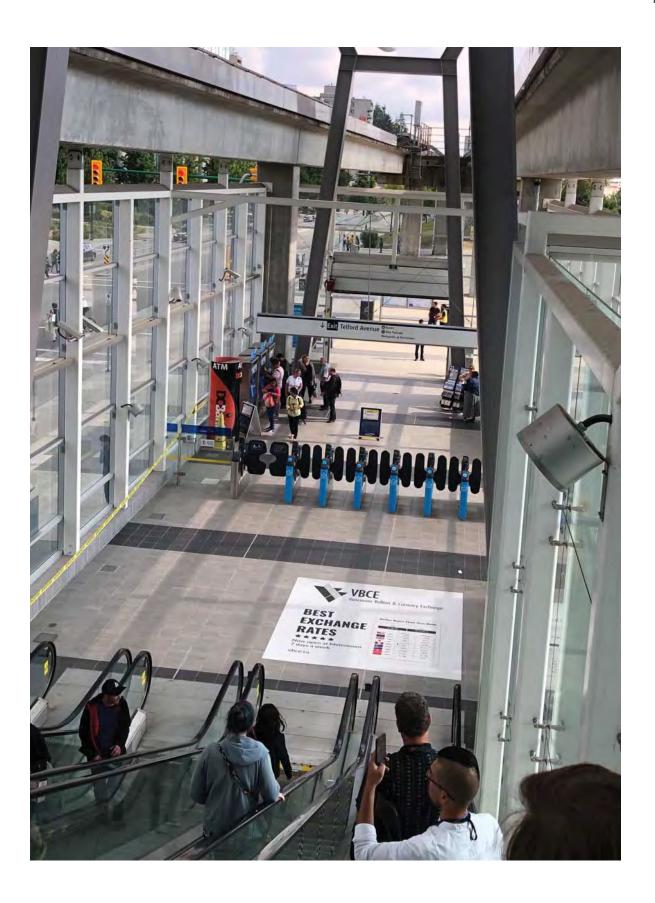


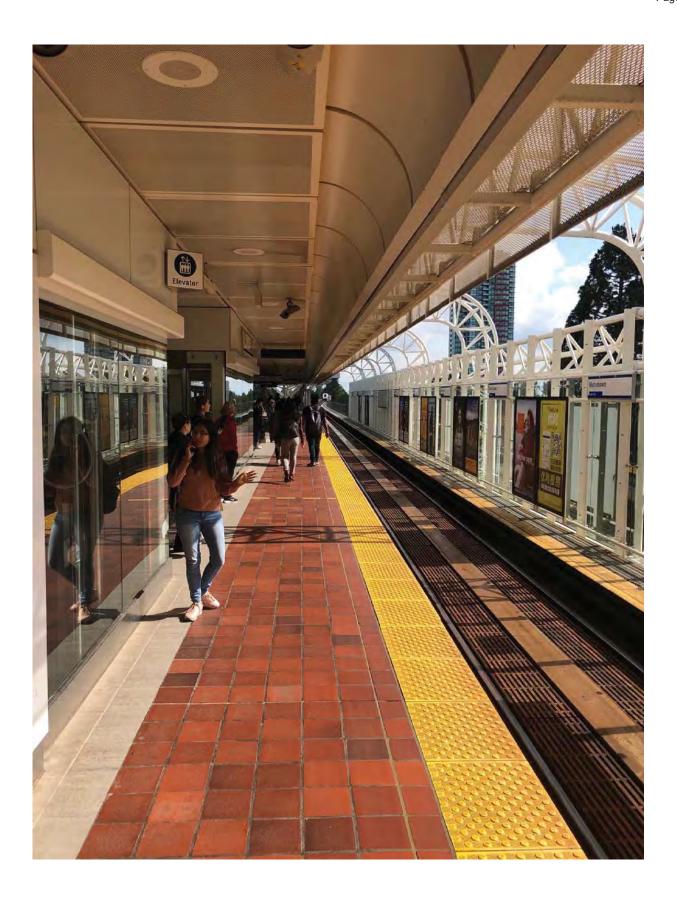




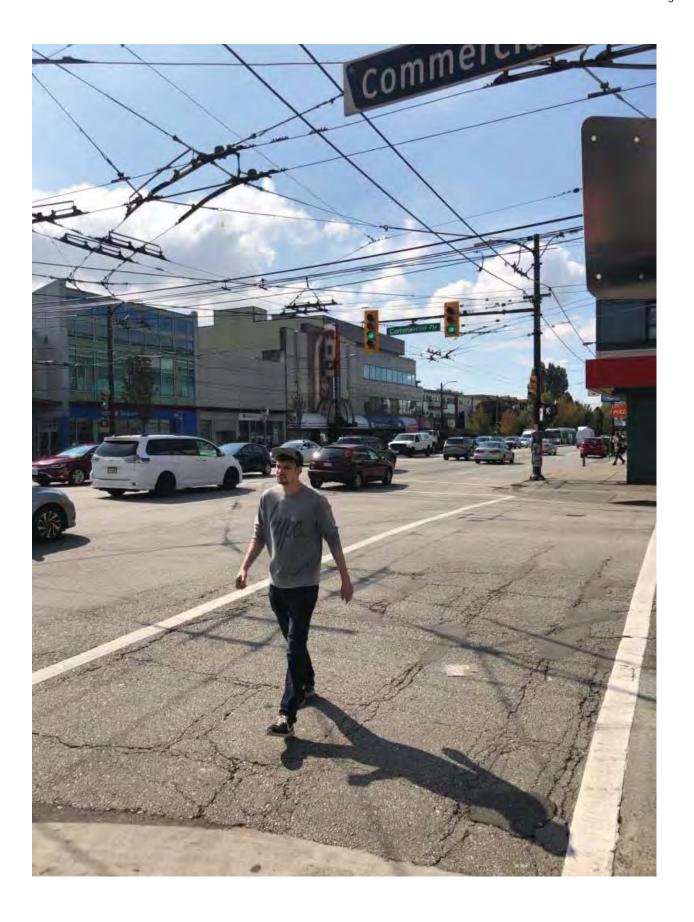














Board Member Conference Report

Board members are required to prepare a written conference report for each event attended on behalf of GoTriangle. Board members may complete the Board Member Conference Report form or prepare a narrative report covering all the areas on the form. The report shall be included in the agenda for the next regular meeting of the Board of Trustees. Attachments (such as the conference agenda, handouts or other materials you feel are valuable, and photographs) to this form or your written report are encouraged.

Board Member:	Wendy Jacobs
Conference Attended:	Rail~Volution 2019
Dates:	September 8-11, 2019
Location:	Vancouver, Canada
Conference Theme:	25 Years and Counting!

Opening plenary

Translink- 50% of residents are riders, 17% mode share transit 15% walking % biking

Importance of politics in decision making that impacts transit Sept 16 ride share will be allowed - impact on transit?

24th in size of cities, 7th in size of transit system

Metro Vancouver, 2.5 million people, 25 cities and First Nations

Biggest decision decades ago - not to build major highways into the downtown of city Urban containment boundary, agricultural land reserve plus natural boundaries, discussions about how to grow

How we plan- decades of planning about how we create a livable community Regional town center model

Different nodes of high density mixed use throughout the region so that everyone does not have to come into downtown

Past several years 18% growth in transit ridership - historical reasons

- Recent significant investments- \$7 billion worth of investments- buses, sea bus, rapid transit and sky train network.
- It is resulting in increased ridership
- Investment in Surrey- suburban area

Challenges - housing affordability

- increase in real estate prices in highly served transit areas
- Congestion on transit and road system
- Engaged in 2050 Transit plan- autonomous vehicles, ride share impact

How will we acknowledge the indigenous people in everything we do? How do we acknowledge the people who were here first? Restorative justice.

The Art of Engage: The Rise of the Participant

Roger Haskell

1% engagement leads to 9% growth

- step up and step out
- Misery is optional
- Movement is necessary
- T- is for term
- Social pain vs physical pain
- The more fun you have, the more fun they have
- Smile- the 10/5 way

Engagement in active participation

How to deal with despair and feelings of being overwhelmed- fight back with play, positive energy, positive ration, connection and engagement

Workshop-Anti-Displacement policies around transit

Hawaii- bureau of land management creates investment in real property around TOD, acquire properties to ensure affordable housing around the corridor and around the stations.

Co-location of public facilities with the light rail stations- hygiene stations

Senior housing

Created department of land management to buy properties

Priority on affordable housing

Minneapolis city council members

Cities are built on population seen as disposable

We often think about geographies in the abstract and not the people it will impact

Strategy one: reparations -

Strategy two- inclusionary zoning policies (must be incorporated into policy of banning single family zoning)

Strategy three- keep people in their housing (housing as a basic need). Tenant protections. Screening barriers, upfront costs, cap on deposits, (credit and eviction history). Eviction counseling. Tenant remedies action- how to work with landlords, liens or receivership without displacing resident.

Strategy four- potential pathways for commercial property ownership. Housing as not the only vehicle for wealth building. Cultural corridors, cultural districts. As we invest in neighborhoods, how do we not displace existing residents? Gap financing for commercial development.

Need to focus on these strategies before route is designated

Just cause eviction- you must have a reason for eviction

Problem- people can be on month to month and then people have no protections Just cause non renewal - you must have a reason for non renewal

Roxbury, Boston-

The hidden homeless

Cooperative living

Advocacy for stops and schedules

Overlay protection district to try to protect existing communities

First source hiring within the zone

41% inclusionary zoning with the TOD units

Tenant conversion fee

Tax relief for homeowners to keep their homes affordable

Transit equity impact assessment

Discount passes for low income riders.

BRT or not to BRT

What essential corridor or travel pattern characteristics did you use to determine the corridor?

King County Metro Transit

- geographic balance
- Ridership potential
- Network connectivity

Prioritization lines in CIP

- -social equity
- -ridership
- -Partnership commitments
- -regional high capacity connectivity
- -corridor implementation complexity

RTD - Denver Transit Agency

- -existing transit supportive policies
- -ROW available
- -existing partnership coordination
- -transit supportive land use
- -corridor study/evaluation complete

Employers/jobs, growth potential, density, ridership, existing congestion Passenger miles travelled per revenue mile

Austin-CTMA

- thirty corridors evaluated over past 20 years, revisited those plans
- Broken down into key travel markets- Commuter, Connector, Circulator
- 19 Connector corridors screened, 6 higher ridership corridors selected for BRT lite, 2 for dedicated BRT/LRT
- Zero car household, household income important part of criteria
- Flip books for public engagement
- Smaller ones for each corridor

Advantages and disadvantages of BRT and BRT lite

RTD- Denver

What can be done to enhance with passenger experience with resources available? How are we going to minimize the throw away pieces- how can it be a stepping stone to next phase- BRT

Austin

Significant boardings per day (have doubled) 10 min headways 7 am-6 am

Not fixed, can keep tuning it up and adding advantages to it. Frequent, branded free WiFi, all door boarding and digital app Cons- no off board fare payment, small shelter (no shade). Bunching

How do you handle geographic equity when trying to determine where to build BRT and which line to phase in first?

CMTA- Project Connect - 6 higher ridership corridors being studied for BRT lite, 4 advocated for by public -2 were extensions and 2 for additions.

50% of riders low income and minority

BRT lite not expensive

Importance of dedicated corridor for BRT BRT to LRT? What can you afford?

Engagement for meaningful manner to gain support and to manage expectation for BRT? Orange line in LA- what can you do to continually improve the corridor as technologies change?

Stakeholder Engagement- surveying communities, reflect what people say they wanted. Ended up eliminating phasing, based on partnerships what happens first, Vision for a Regional BRT Network (we should develop this)

Stakeholders voted on bus shelter preferences at each public meeting On board surveys for input Engage public early on

Success- ridership experience, frequency of service, stations,

Don't call it a bus, branding, use of BRT for access to sporting events.

Update of 10 year old BRT systems- what to consider?

- Plans for maintenance of investment, facilities security
- How to quality of service and operations
- How are you evolving the brand and product (more unique, custom approach)

Near term improvements- bus bulbs, curb extensions, queue bypass lanes and jump signals, transit signal priority

-enhanced shelter design, Public information displays, robust fiber network, technological future proofing as much as possible

-partner with cities for signal prioritization, putting in fiber,

Reimagining process- what are our standards, what are our goals for service, development of manual, to partners- how can we work together to get there?

Think about how local bus network will fit into BRT spine

Street level, elevated, cut and cover, tunnel- create way to discuss these options with the public-Austin created way to socialize this information

How come up with ways to "socialize" Transit options? How to create graphic to communicate options? How to educate public about costs, and pros and cons associated with each option?

Shelters- all stops with transparent weather protection, lighting, security cameras, PIDS, lighted outside facing map displays, outside displays for advertising, fiber improvements

The Surprising Path to Equity

Aloha- gift of compassion, care, respect, peace, inclusiveness

Vancouver-Transit Fare Review process- 2 year process to get input,

- -customer perception of unfair pricing structure, opportunity to leverage new technology, policy window
- -6 component parts-
- -found that people wanted opportunity for open ended input
- -began each survey with a short video, 45 second, linked to additional info discussion guide, third link to discussion guide, equity of access
- -fairness- variable fares based on distance, journey time, time of day, travel direction or service type vs simplicity

Ben Trevino- Honolulu Authority for Rapid Transportation, Sustainability Planner Indigenous Principles of Sustainability and Equity

Hawaiian station naming- using indigenous names System of equitable distribution of natural resources

How do we empower people with more technical information? Continuous practice of how to impart information that we do have Bart-Rachel Russell Explored options to increase window for service- impacts to service

Partnered with bus operators to cover these routes

- 1. path to equity- know your riders- your team must engage with your riders, who are their employers, where are they coming from, how far do they have to work to get to their jobs. Survey- on board, in station, in mail, in multiple languages
- 2. Path to equity- means going out directly to your riders where they are- early bird express-t-shirts- branding. On site to promote new service
- 3. Pathway to equity form partnership to amplify message-through 30 community groups message bus will beat the rail in terms of on time to work,
- 4. Pathway to Equity- build Trust

LA Metro- next Gen Bus line study

Declining ridership, no overhaul in 25 years, make it more relevant to how people are getting around and want to get around.

Study- customers, ethnicity, age, income, summary of service needs-what are the barriers to each ridership group

Metro Equity Platform

- 1- define and measure
- 2-listen and learn
- 3-focused and deliver
- 4- train and grow

Language barriers, disabled, go to the young, the elderly and do not have a car

Have the hard conversations early and often-

Metro quest- survey

Geofencing

Printed version, read aloud version, language appropriate

Mobile unit, onboard surveys, meeting in a box, focus groups,

Next Gen working group- 50 plus organizations, meeting every other month, include diverse cross representation and decision makers

Story Map-

Show how public input guided service changes

Show you care and that the customers are the top priority

Collaboration with technical and communication teams

Plenary - Challenge of Transit, affordable housing and displacement in Vancouver

Andy Yan

Vancouver constrained as a regions by ocean, mountains and US Border

Cities in a sea of green- agriculture prioritized and where urban development should take place.

Role of flood of 1950's

Sustainable approach to development

Transit has enabled dense, sustainable development.

A city of cities

Wide range of labor sectors use transit

21% of new housing units in past 10 years within 1300 feet of a sky train station

Challenge transit oriented gentrification and displacement

Third highest expensive housing after Silicon Valley and SF but 50 lowest incomes. So even worse challenge.

73% of single family homes in metro Vancouver more than \$1 million

Report- metro Vancouver- affordable housing and transportation

Homelessness- 2016 - more than 2500

Not just what we build, but for whom

46% of condos are investment owned

41% immigrant population

Refugees, minority and indigenous access to transit

Climate change- sea level changes, dryer and wetter periods

The cultural capital of transit- popularization

Rethinking of the user experience, user centered

Transit has a role in making sure our cities are sustainable, just and affordable.

Jay Piper

Importance of social networks- disrupted

Andrew Reimer- reneviction

Tim Grant- PCI- community developer-TOD, including affordable and low income housing.

Catalyst community developer -non profit developer

Janice Abbott- Atira- Housing for women. Impact of transit on people's lives, making it easier, less time getting to work is goal.

Improvement now in amount of rentals are available and some less expensive

Questions: who are we trying to make this workable for?

Structural and systemic issues-land use and urban planning has been weaponized. Those with wealth and power are benefiting from transit.

Transit being brought to poor areas but the transit is not for them.

Single women with children are being excluded- microunits most of the affordable units

Women with lived experience is priority hiring

Anti- displacement development tool kits-policies need to be put into place to ensure equitable urban development. Community members need to be at the center

Policy- not buying property where people are currently living.

Question: how does increased density and towers impact people?

Issue of cost, fees, density can lower cost

Public funding for housing

Access to capital low interest rates

Price of land- rental only zoning.

Rental advisory committee

Corporations need to pay their fair share- should not be transactional

Community land trusts

Cost of land, cost of construction, cost of rezoning

Problem with cookie cutter solution

Like healthcare and education in Canada, housing and transit should be human rights- should not be left up to market forces

Government needs to step up and do its job

Transit is about freedom and possibility

Land use - from policy to implementation

Minneapolis- planning director

Guiding principles for 2040 Comp Plan- equity focus

428,483

"This plan is our opportunity to undo barriers and overcome inequities created by a history of polices in our city that ...

Focus of 2040 plan is to eliminate disparities

Mapped racially discriminatory deeds

Equity measures- inclusionary zoning, minimum wage, access to capital

Built guidance, parcel by parcel approach

Eliminate single family

Charlotte

44 people moving there per day

Comp plan in progress- since 1974, new UDO

Blue line- 19.3 miles, 26 stations

Gold line streetcar- 1.5 miles 6 stops- to 12 stops

Area planning -

Equity lens but decided station area planning not working

Moving to form based approach

Negotiated rezoning process- not equitable and not sustainable

Trying to move away from this.

Market conditions at each station and what outcomes are wanted

\$3 billion of investment along blue line

Residential boom, first, now commercial and office coming, and moving to increased height Lessons learned- market will not building AH near transit, TOD one size does not fit all. You have to make following the plan the easy choice.

Denver-

2015-676,000

Metro region, 3.18 million

49 light rail stations, more than 100 miles

Blueprint Denver- focus on equity

More nuanced, common sense approach, with equity lens, tailored for each neighborhood

Overall growth strategy- not one size fits all

Equity concepts- using data- 1) access to opportunity, 2) vulnerability to displacement, 3)

Every time rezoning- what are the displacement issues, knowing the data first, what can we do to make the impact more equitable.

Gentle density- right sizing land use entitlements to what is right for that area

Don't entitle the the land use until we really know what we want to do.

- 1. framing equity
- 2. Supporting affordable housing and mitigating displacement
- 3. Encouraging access to jobs and economic opportunities

Charlotte doing horizontal and open space incentives for affordable housing

Gentle density - around transit stations,

Charlotte- grant investment program- matching grants- facade. If you invest \$10,000, city will reimburse