

#### Corporation of the City of Cambridge Special Council Meeting Addendum

Date: June 8, 2021, 5:00 p.m.

Location: Virtual Meeting

#### COVID-19

Due to COVID-19 and recommendations by Waterloo Region Public Health to exercise social distancing, members of the public are invited to submit written comments or requests to delegate via telephone related to items on the agenda.

The public wishing to speak at Council may complete an online <u>Delegation Request form</u> no later than 12:00 p.m. on the day of the meeting for Special Council Meetings occurring at 5:00 p.m. and no later than 12:00 p.m. the day before the meeting for Special Council –Statutory Public Meetings occurring at 10:00 a.m.

All written delegation submissions will form part of the public record.

			Pages	
4.	Presentations			
	*4.1.	Patrick Gaskin, President and CEO; David Pyper, Chair, Board of Directors - Cambridge Memorial Hospital re: CMH: A Community Update	3 - 21	
	*4.2.	Tova Davidson, Executive Director- Sustainable Waterloo Region re: 2019 Year End Report on Sustainability	22 - 39	
	*4.3.	Yogesh Shah, Deputy City Manager- Infrastructure Services and John Cook, Vice President -Buckingham Sports Properties re: 21-191(IFS) Cambridge Sports Park Expansion Update	40 - 70	
	*4.4.	Aaron O'Keefe, Utility Compliance Technologist II and Chris Whetstone, Manager of Water, City of Cambridge re: 21-139(IFS) Drinking Water Quality Management Report for 2020		
	*4.5.	Tova Davidson, Executive Director- Sustainable Waterloo Region; REEP; ClimateActionWR re: 21-141 (CRE) TransformWR, Community Climate Action Strategy and City of Cambridge's Implementation	71 - 83	

#### 5. Delegations and Consideration of Related Reports

\*5.1. Joseph Tanel re: 21-141 (CRE) TransformWR, Community Climate Action Strategy and City of Cambridge's Implementation

*5.2.	Scott Morton Ninomiya, 50by30 Waterloo Region re: 21-141 (CRE) TransformWR, Community Climate Action Strategy and City of Cambridge's Implementation	84 - 93
*5.3.	Randy Saad re: 21-141 (CRE) TransformWR, Community Climate Action Strategy and City of Cambridge's Implementation	
*5.4.	Lesley Johnston, Fossil Free UW re: 21-141 (CRE) TransformWR, Community Climate Action Strategy and City of Cambridge's Implementation	
*5.5.	Bruce Taylor, Enviro-Stewards Inc. re: 21-141 (CRE) TransformWR, Community Climate Action Strategy and City of Cambridge's Implementation	94 - 107
*5.6.	Allen Schiedel re: 21-095(CD) 4045 Maple Grove Road Affordable Housing Condition of Draft Approval Information Report – Maple Mills (Hespeler) Ltd.	
*5.7.	Dave Aston, MHBC Planning re: 21-095(CD) 4045 Maple Grove Road Affordable Housing Condition of Draft Approval Information Report – Maple Mills (Hespeler) Ltd.	
*5.8.	Luxon Burgess, Cambridge Greens re: 21-141 (CRE) TransformWR, Community Climate Action Strategy and City of Cambridge's Implementation	
Corre	spondence	
*6.1.	Jessica Fisher re: 21-141 (CRE) TransformWR, Community Climate	108 - 108

Action Strategy and City of Cambridge's Implementation

\*6.

84 - 93



# A Community Update Cambridge City Council Meeting

David Pyper, Chair, Board of Directors Patrick Gaskin, President & CEO

June 8, 2021

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**About Us Highlights: COVID-19 Response** 

Ongoing CMH Priorities

2021/22 Work Ahead

Closing Messages
Discussion





# CMH supporting the needs in the community

## Cambridge COVID-19 Assessment Centre



**Drive Thru is Open** 

Book online or call 226-895-1050



#### WATERLOO REGION

Strict pandemic protocols keeping staff, patients safe at Cambridge Memorial Hospital

By Robert Williams Record Reporter Sat., Feb. 13, 2021 | \*\displaystyle 4 min. read



Assessment Centre, Infection Prevention & Control, Occupational Health, Spiritual Care

CAMBRIDGE

### **CMH & Vaccination Clinics**

supporting getting jabs into Cambridge arms!





- Pinebush Mass Immunization Site
- Cambridge North Dumfries OHT Vaccine Clinic
- 3 CCM On-Site LTC Vaccine Clinic
- 4 CMH On-Site Staff Pop-Up Clinic











# Sending you Happy thoughts and Sunshine your way to help brightten





# CMH & Cambridge Country Manor – supporting a community partner in outbreak

Redeployed over 60+ hospital employees and leaders

An in-depth clean of the entire Home

A robust and consistent screening process

Resident and staff vaccination clinics completed

Cohorting of staff and residents to ensure reduction of cross contamination risk

**Consistent monitoring and tracking of PPE inventory** 



## **CMH** response

#### to patient transfers from GTA





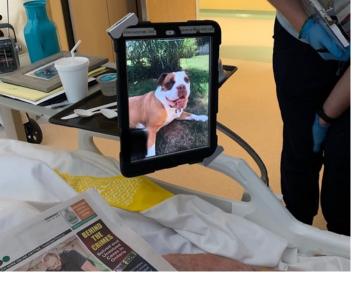
During recent critical ICU shortage in Wave 3, hundreds of COVID+ patients were transferred out of the GTA

To-date, CMH welcomed 20+ GTA patients

Thank you for reaching out to us. We have four family members with COVID in four different hospitals. Knowing they are being taken care of at Cambridge Hospital puts our mind at ease.

Family Member of a GTA Patient Transferred to CMH









## **Patient Experience**



at a glance

Virtual visiting spots have more than **doubled** during Wave 3 – CMH facilitates at least **200 virtual connections** each week!

CMH schedules appointments for visitors & caregivers for ALL patients each day once cleared by IPAC











## **Community response and support**







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#### **Strategic Direction 1:**

### Accelerate access to care for patients

**Inpatient Mental Health Patients** Served

797

23%

Surgeries

7,907

21.5%

Clinic **Visits** 

41,598

15.0%

Inpatient **Discharges** 

9,732

5%



**Emergency Department Visits** 

42,650

17.3%

**Inpatient Weighted** Cases

11,137

2.5%

**Births** 

1,504

**1** 7.0%

**Covid Assessment Centre Visits** 

50,000





287

490

Within hours after undergoing hip surgery John took his first steps. Together, we make it possible.



#### **Strategic Direction 2:**

## Keep staff and physicians safe and engaged







**Forbes** 

# CANADA'S BEST EMPLOYERS

EDITED BY KRISTIN STOLLER

JANUARY 26, 2021



**WE ARE** 

#242

201	Otmorran Eurott	ioronico, onicano
235	Scotiabank	Toronto, Ontario
236	Pfizer	Kirkland, Quebec
237	Canadian Pacific Railway	Calgary, Alberta
238	TELUS	Vancouver, British Columbia
239	Ontario Teachers' Pension Plan	Toronto, Ontario
240	CBC/Rac o-Canada	Ottawa, Ontario
241	W Restaurants	North Vancouver British Columbia
242	Cambridge Memorial Hospital	Cambridge, Ontario
243	St. Mar neral Hospital	Kitchener, Ontario
244	DHL	Brampton, Ontario
245	Sysco	Toronto, Ontario

Determined by staff: How likely they would be to recommend their employer to others.



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#### Strategic Direction 3:

# Meet evolving needs of our community with continued redevelopment of our new hospital

We thank the City for its consideration and support to provide a safe, convenient and accessible NEW entrance for staff, patients and Visitors



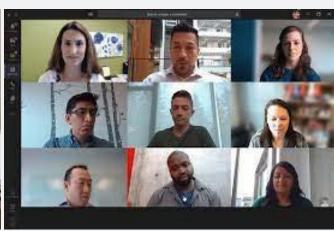


#### Strategic Direction 4:

# Prepare for digital transformation through renewal of our digital health strategy









### What next for our CMH Foundation?

With the completion of the WeCareCMH campaign, we have begun inspiring our community to donate by sharing our 'Caring Programs' to educate residents about the scope of programs available at CMH.

Learn more about our amazing hospital programs, services and most importantly, people of CMH by visiting cmhfoundation.ca

We all want to live our best lives.
CMH is helping people in our community to do just that.

Dr. Anjali Sharma, Chief of Psychiatry







## Journey of courage, healing & gratitude



## Thank you



**David Pyper, Board Chair** 



Patrick Gaskin, CEO



















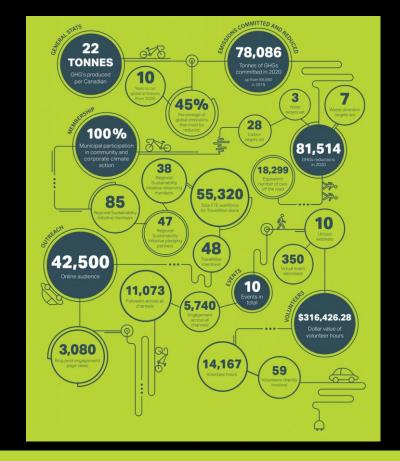












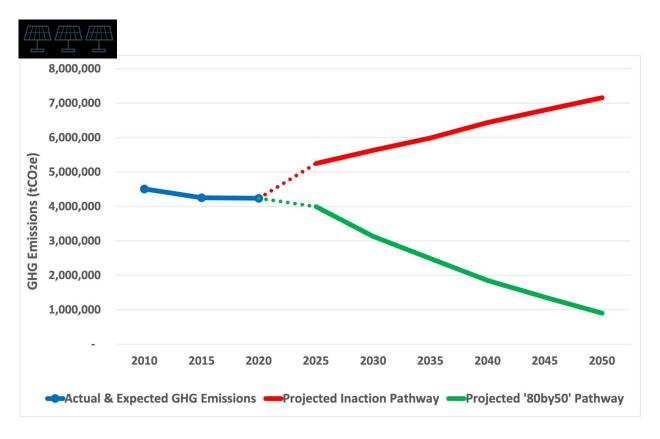










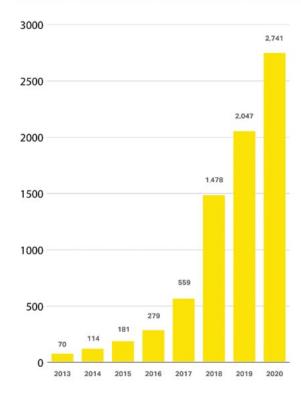






# **Charge\\R**

#### Electric vehicles in Waterloo region

































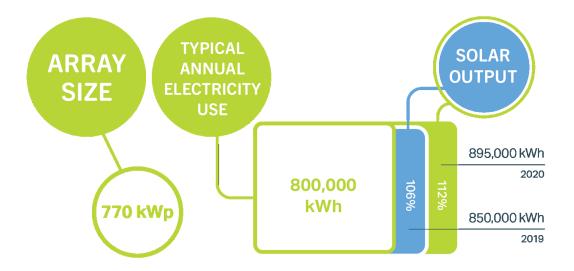


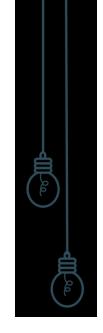






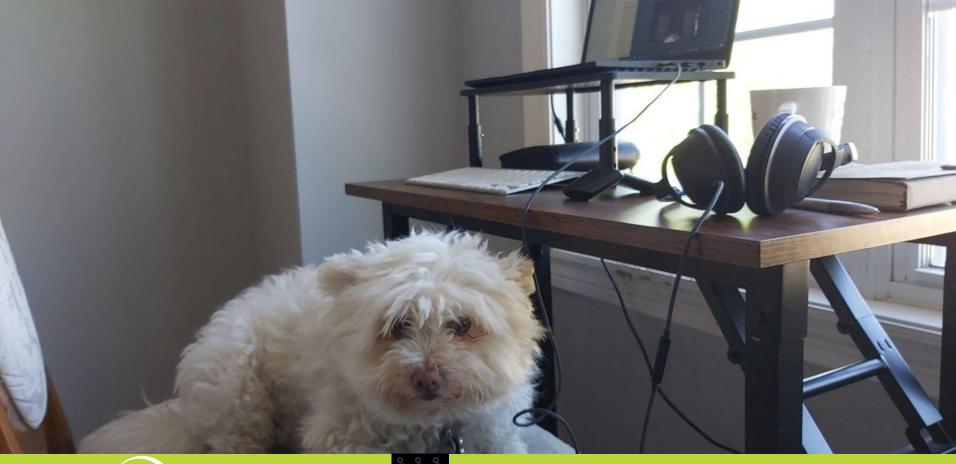










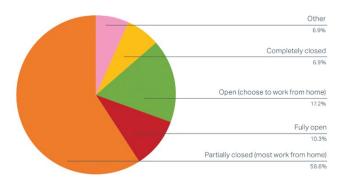




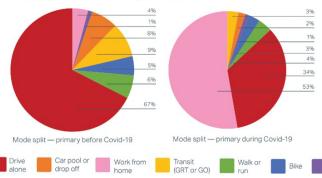




#### **Worksite status during survey**



#### **Employee Travel Survey Results**



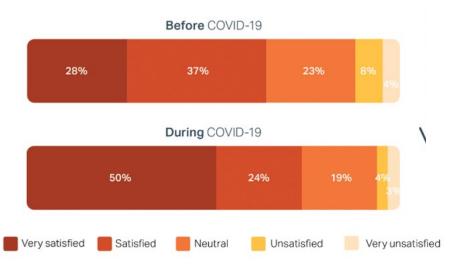








#### Satisfaction with mode of transportation













































# CAMBRIDGE SPORTS PARK EXPANSION

JUNE 8, 2021



### **AGENDA**

Background
Community Engagement
Indoor Recreation Facilities – Council Direction
Cambridge Sports Park Expansion
Ice Rental & Costs
Conclusions

# **Background**

- Indoor recreation facilities study
- Council approved amenities for Multi-sports facilities
  - Aquatic complex with a 25 metre 10 lane pool, a warm water/therapeutic pool and a leisure pool
  - Triple gymnasium, Fitness track
  - Multi-purpose rooms and display space
  - Twin Pad Arena with spectator seating in one arena pad phase I
  - 2 additional pads at a future date -phase II

### **COMMUNITY ENGAGEMENT**

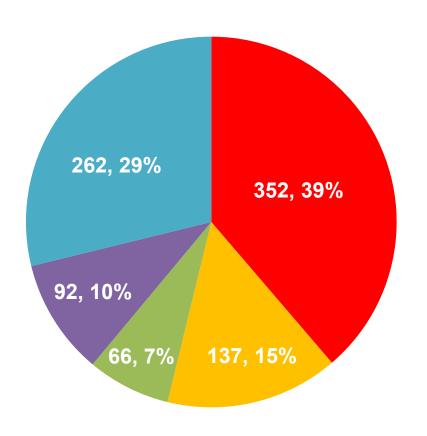
- Two delegation nights
- Public meeting/information session
- Online information portal and survey – Engage Cambridge



# COMMON THEMES DELEGATION NIGHTS

- Better indoor recreation facilities are needed
- Build anywhere
- Invest in the facility
- No preference for split or single facility
- Consider private investment and fundraising opportunities

# ONLINE SURVEY LOCATION



- 261 Hespeler Rd. (Flea market site)
- 220-240 Pinebush Rd.
- 0 Franklin Blvd. (Franklin Blvd. at Savage Dr.)
- 850 Fountain St. S. (Conestoga College)
- Southeast Galt (Cityowned lands)

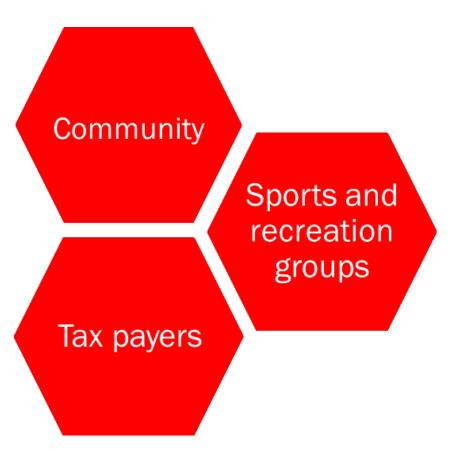
# ONLINE SURVEY COMMON THEMES

location Cambridge option access built like

```
only central Hespeler sites swim sports use long just Galt ice pads only central Hespeler sites swim area long just
  Galt ice pads
close get it done pool pools cost need hockey ice
            needs community time make make new money people think
                                                  make
    building
                                                site
                                    other
          build
facility Conestoga Complex
```

## **COUNCIL DIRECTION**

 Lowest risk; most costeffective and timely solution

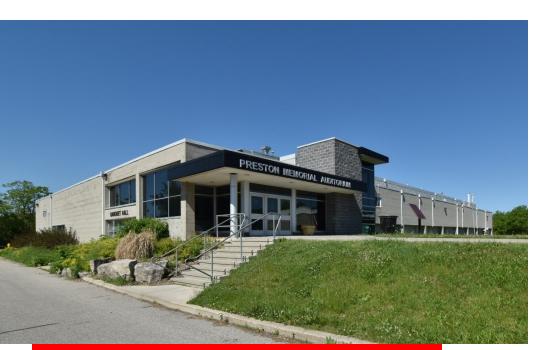


## **SOUTHEAST GALT LANDS**

- City owned lands
- East boundary road route
- Forecasted population growth
- Community hub with Recreation complex, Idea Exchange location and two elementary schools



## ICE FACILITIES



Expansion of Preston Memorial Auditorium

- Upgrade and expand Preston Memorial Auditorium
  - Twin pad facility
  - NHL Sized Ice pad
  - Upgrades to change rooms and other

amenities

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## ICE FACILITIES

- Centrally Located Quad Pad facility
- Consider request to expand Cambridge Sports Park
  - Improvements to 2 existing ice pads
  - Expansion to add 2 new ice pads



# Cambridge Sports Park Arena Expansion



Presented By:
John Cook
Vice President
Buckingham Sports Properties Company

# **Buckingham Sports Properties Company**















# Buckingham Sports Properties Company

#### **VISION STATEMENT**

An innovative leader in the recreational sports industry dedicated to continued consumer satisfaction through service and quality resulting in loyal and long term customer relationships.



# Buckingham Sports Properties Company

#### **MISSION STATEMENT**

Buckingham Sports will strive to be a leader in the recreational sports industry by providing a healthy environment for recreational and competitive needs.

Our purpose lies in supporting our communities and athletes and our success is measured by customer loyalty, retention, service, growth and profitability.



#### **Cambridge Sports Park Arena Expansion**



#### **OVERVIEW**

- Expansion To Include 2 NHL Regulation Ice Rinks
- Facility Design To Accommodate Sledge Hockey On One Ice Pad
- 12 Large Dressing Rooms And 2 Referee Rooms, (Men's And Ladies) Fully Equipped With Accessible Showers And Washroom Facilities
- Spectator Seating Of A Minimum Of 400
   Seats On One Rink And A Minimum Of 300
   Seats On The Other Rink
- Improvements To The Facility To Include Spectator Seating Of 100 Seats In Each Of The Existing Ice Pads
- New Expanded Facility Will Provide 2,000 Square Feet Of Secured, Accessible, Ventilated Climate-Controlled Storage/Office Space For City/Sports User Groups
- Fully Renovated Restaurant and Snack Bar
- Parking Spaces As Per City's Zoning By-Law And Provided Free Of Cost To Users
- Pro Shop With Skate Sharpening
- Media Room For Figure Skating Music

#### Cambridge Sports Park Arena Expansion Lobby View



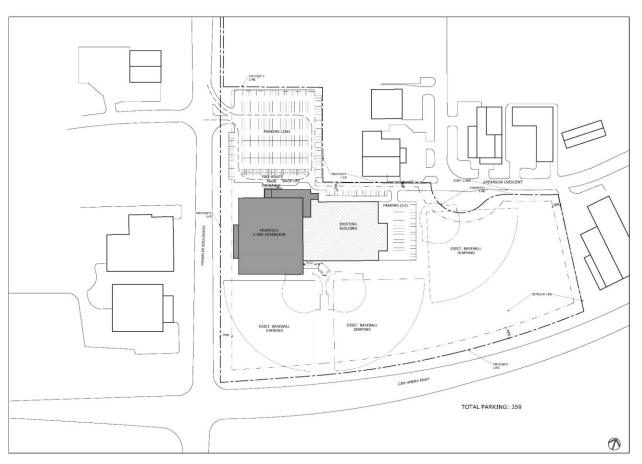
- State of the Art Design
- Friendly Atmosphere
- Open Concept Design
- Energy Efficient Design And Environmentally Friendly
- Community Amenities
- Spacious Lobby
- Accessible Friendly

#### Cambridge Sports Park Arena Expansion Elevations



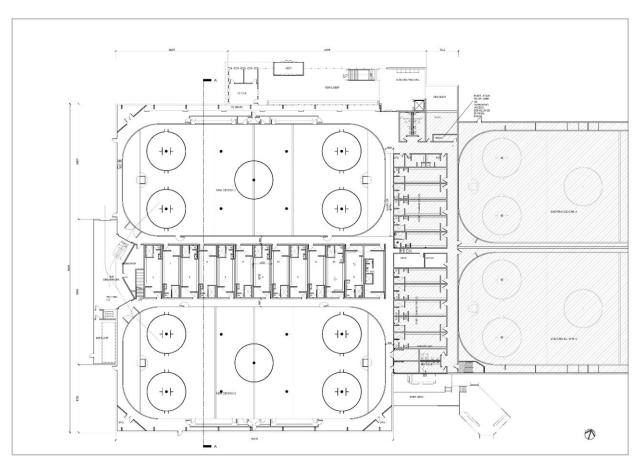
- Eye Friendly Building
- Addition Will Tie Into Existing Building
- Renovations Will Also Be Implemented On Existing Building To Modernize It
- Facility Will Meet All Conditions Of The Accessibility Act

# Cambridge Sports Park Arena Expansion Site Plan



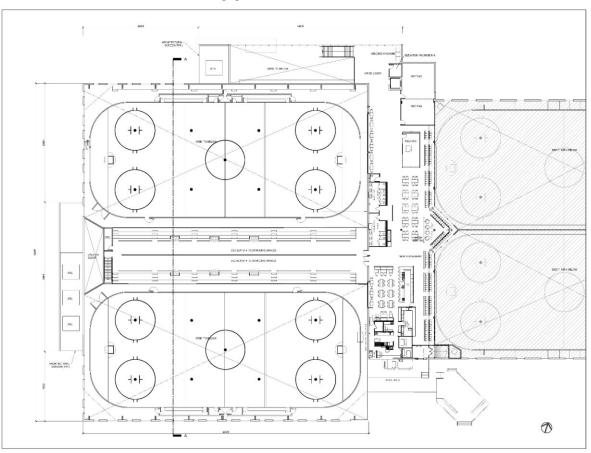
- Expansion Will Fit Nicely Onto Existing Sports Park Footprint
- Easy Access From Franklin Boulevard
- Parking Spaces Will Meet City Requirements
- Baseball Will Remain With
   4 Ball Diamonds In Their
   Current Locations
- 4 Beach Volleyball Courts
   Will Be Relocated

# Cambridge Sports Park Arena Expansion Lower Floor Plan



- Expansion Will Include 2 NHL Regulation Size Ice Rinks
- 12 State Of The Art Dressing Rooms Designed With Women and Disabled Participants In Mind With A Team Friendly Atmosphere
- 2 Referee's Rooms
- The Rink Design Will Allow For Sledge Hockey On One Rink
- Storage Will Be Provided In Rinks For Use By Minor Hockey
- Ice Plant Will Be Designed With High Efficiencies
- Building Will Be Environmentally Friendly
- Figure Skating Music Room

# Cambridge Sports Park Arena Expansion Upper Floor Plan



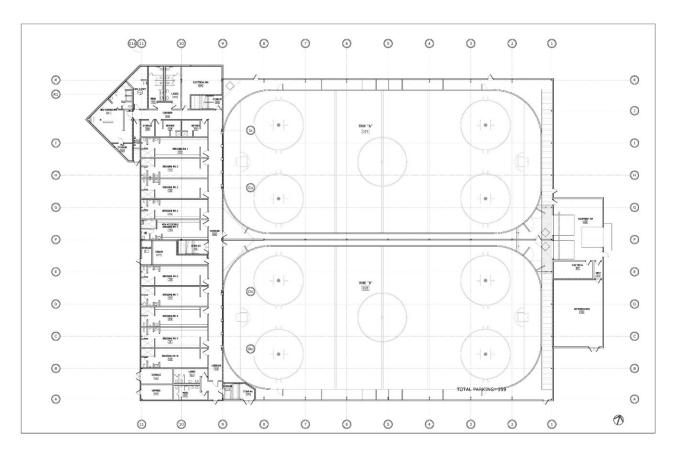
- Seating Will Include 400 Seats In One Arena And 300 Seats In The Other Arena
- The Restaurant / Bar Will Be Renovated To Be More Family Friendly
- 3 Community Meeting Rooms
- Washroom Facilities
   Will Be Located Throughout
   The Building And Accessibility
   Friendly

# Cambridge Sports Park Arena Expansion Similar Rink Design



- Similar Concept of Seats Placed Above Dressing Rooms.
- Additional Spectators Can View From Rink Level Behind Boards
- Seating Will Be Spectator
   Friendly And Consist Of Individual
   Stadium Style Seating

#### Cambridge Sports Park Arena Expansion Existing Lower Floor Plan



 The Expansion Will Allow For Easy Access Throughout The Facility Between The New Rinks And The Existing Rinks And Appear Seamless

### **Buckingham Sports Properties Company**



"Thank You"

## **ICE RENTAL**

- 2800 hours of Ice Rental on new NHL sized pads
  - 2400 hours during prime time
  - 200 hours during non-prime time
  - 200 hours during summer time
- Ice allocation on existing twin pad to continue
- 2000 sq. ft. for storage/office space
- All 4 pads available to host tournaments

### COSTS

- \$150,000 base lease payment
- \$1,245,000 toward ice rental costs
- Costs subject to annual adjustment based on CPI
- Reimbursement of revenue from sale of unused allocated ice time to the City
- No costs for storage and office space
- City portion of Development Charges to be waived and Building Permit fees to be refunded
- Property Taxes for expanded facility to be exempted

## FINANCIAL IMPACT

- \$675,000 annual Operating Budget Impact
- 0.71% property tax rate impact

 \$600,000 one time cost impact as a result of Development charges waiver and Building permit fee refunds

# -MAPLE GROVE RD. PINEBUSH RD . EAGLE ST.N **AUDITORIUM** BLAIR RD. CLYDE RD. MAIN ST. SOUTHEAST DUNDAS ST.S MYERS RD

# PLANNED FACILITIES

WG Johnson Centre
Joint-Use Campus
Hespeler Memorial
Arena

Preston Memorial Auditorium Galt Arena Gardens

Cambridge Sports
Park
Chaplin Family YMCA

### CONCLUSIONS

- This proposal provides
  - Centrally Located quad pad facility to the community
  - Opportunity to host significant events and tournaments
  - Create a positive economic impact for Cambridge Businesses
  - provides an affordable option for providing sustainable indoor recreation services in a timely manner
- Decommissioning and repurposing of aging facilities, while improving amenities for the ice users



### **Thank You!**

Yogesh Shah
Deputy City Manager – Infrastructure Services
shahy@cambridge.ca





### **TransformWR:**

Waterloo Region's Transition to an Equitable, Prosperous, Resilient Low Carbon Community





#### Coordinate



#### **Engage**





























#### **COMMUNITY & TECHNICAL ENGAGEMENT**

External Community Technical Groups

Community Technical Leaders

#### Over 1,600 community members contributed to this strategy through:

- 36 Event booths
- 5 Workshops
- 11 Focus groups
- 50+ Interviews
- 460 Survey respondents

#### Over 100 technical experts contributed to this strategy, including:

- Engineers
- Architects
- •Technical Solution Providers

- Local Municipalities
- External Municipalities
- 2/100 mar 111 am e. pan e. co
- Universities and Colleges
- Association of Energy Engineers

· recinin

Utilities



#### SUSTAINABLE DEVELOPMENT GOALS



# SUSTAINABLE GOALS DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD





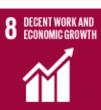








































#### 80by50 Trajectory

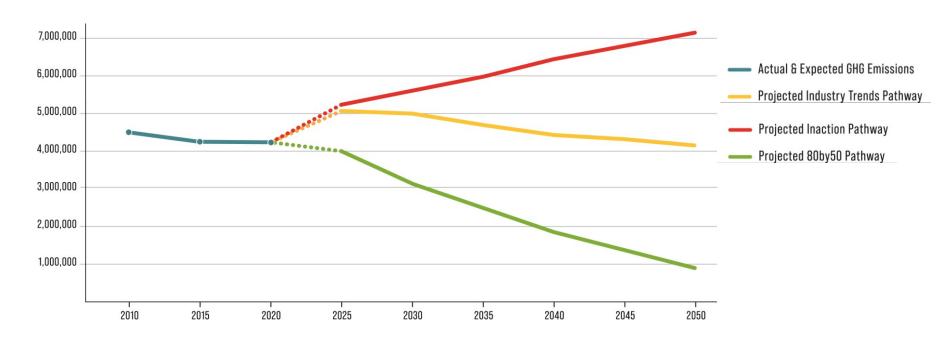


Figure: Trajectory to achieve an 80% GHG emissions reduction (from 2010 levels) by 2050

- 1. Inaction: Our population continues to grow as expected, but no further efforts are made to reduce our GHG emissions;
- 2. Industry Trends: Our population continues to grow as expected, and predicted industry trends help us reduce emissions per person over time;
- 3. 80by50: Our population continues to grow as expected, industry trends help us reduce emissions per person over time, and we make further conscious changes to meet our 80by50 reduction target. Age 76 of 108





Transformative Change #1: By 2050, most trips are taken using active transportation, with the support of a robust public transit system.

- Redesign, rebuild, and maintain our transportation system to prioritize active transportation:
  - Plan a network of active transit corridors.
  - Implement policies to prioritize active transit in road and trail designs.
- Make existing and new communities "complete communities":
  - •Implement design standards for new developments to build for active transit to be the primary mode of travel.







## Transformative Change #2: By 2050, remaining personal and commercial vehicles are zero emissions vehicles.

- Switch commercial vehicles to zero emission vehicles:
  - Transition fleets to zero emission vehicles.
  - Collaborate on region-wide electric vehicle strategy.
- Build a network of charging/refuelling infrastructure:
  - Provide electric vehicle charging stations in public spaces.
  - Require new residential parking spaces to be "EV-ready".





#### TRANSFORM THE WAYS WE BUILD & OPERATE OUR SPACES

Transformative Change #3: By 2050, businesses and homes no longer use fossil fuels for space heating and cooling, and water heating.

- Decarbonize building heating and cooling, and water heating:
  - Offer innovative loans for energy-related building upgrades.
  - Create a one-window service to support energy-related upgrades.
- Build new buildings to be, or transition to, net-zero carbon:
  - Develop building standards to support zero-carbon development.





#### TRANSFORM THE WAYS WE PRODUCE, CONSUME, AND WASTE

Transformative Change #4: By 2050, Waterloo Region uses less, wastes less, and no longer disposes organic matter in landfills.

- Use less, and use it again:
  - Implement community waste reduction and circular economy campaigns.
  - Reduce unnecessary building demolitions and construction waste.





#### Transform the Ways we Produce, Consume, and Waste

Transformative Change #5: By 2050, Waterloo Region has a thriving local food system built on local farming, and food production and processing that feeds much of our community.

- Protect agricultural land and the local agricultural system
- Adopt low GHG emission diets:
  - Provide a variety of low GHG food options and plantbased dining options at catered events.





#### TRANSFORM THE WAYS WE RELATE

## Transformative Change #6: By 2050, Waterloo Region has leveraged reducing GHG emissions increase equity, prosperity, and resiliency for all

- Prioritize increasing equity throughout GHG reduction planning:
  - Establish metrics to measure progress on increasing equity through GHG reduction initiatives.
- Ramp up local renewable energy generation:
  - Evaluate how to identify and protect optimal areas for industrial-scale renewable energy generation.
- Coordinate advocacy to senior levels of government.



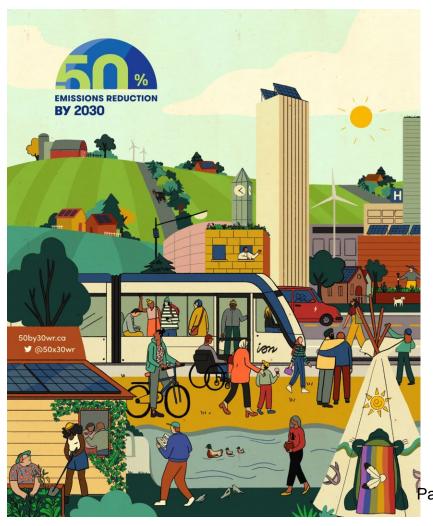


## **QUESTIONS?**









# 2018 Intergovernmental Panel on Climate Change: 1.5C Report

 Key takeaway: Countries must cut emissions in half by 2030 for a safe climate future

50x30WR, a group of organizers operating on the principle that **speed is justice** and committing to that goal of 50% reductions

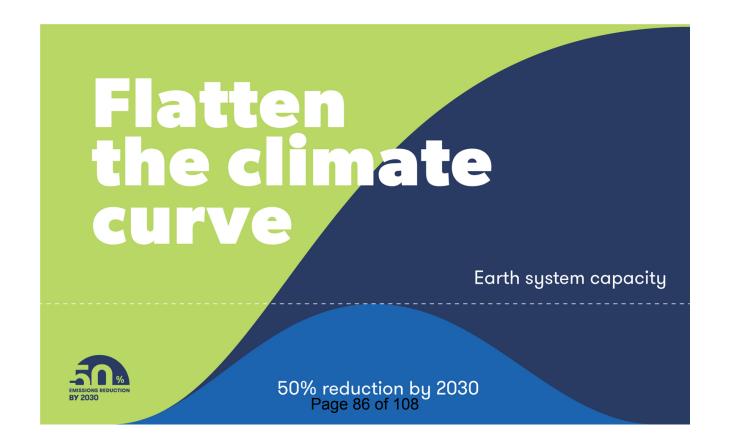
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## 50by30's work in community

- Hosted over a dozen diverse open community events, convening visions + solutions for sustainable futures
- Petition in support of 50by30 with nearly 2,000 signatures
- 6800+ emails sent to local councillors in support
- Solidarity with and support for local climate + social justice solutions, and climate champions
- Co-organizers of local climate strikes, including that brought out over 5,000 people in Waterloo in 2019
- 'Community conveners' for climate action + justice



## Call to action: Commit to 50by30



#### The Changing Climate of Waterloo Region Our local climate is projected to get climate change is a **GLOBAL CHALLENGE** WARMER, WETTER, AND MORE EXTREME with local impacts Annual average temperature projection 2-3°C by the 2050s\* More Extreme Summer Heat Projected average number of days over 30°C per year Global Greenhouse Gas Emission Scenarios that's like If current emissions continue two full months Aggressive emissions reduction of extreme heat 15 current\* 2050s\* 2080s More Intense Rain and Storms **Warmer Winters** Large-scale rainfalls and wind storms The monthly average temperature in are projected to happen more frequently February in the 2050s is expected to be 3-5°C higher than it is today, meaning it will hover around 0°C freezing rain precipitation % by the 2020s'

## How the Climate Has Changed And Will Keep Changing

Global CO2 levels are at 415ppm - far above the recommended threshold of 350ppm

We are at approximately 1.3°C warming - already highly dangerous. If we continue on this trajectory, we'll see 4°C global rise within our children's lives - destabilizing the climate beyond recognition, and destabilizing societies.

We can decarbonize at a dramatic rate.
We are an innovation and
technological leader

#### Cambridge: strong and steady in crisis

"Our entire history has been shaped by our relationship with the Grand and Speed Rivers...we have adapted to and recovered from river flooding and other emergencies.

We have *proven that we are resilient* in the face of such challenges...and expect that we will face similar challenges in our future.

Extreme weather and changing climate patterns are being experienced across the world...in recent years we have witnessed increasing impacts...from more intense and damaging spring flooding...to longer summer heatwaves...

The Cambridge of the past will not be the Cambridge of tomorrow."

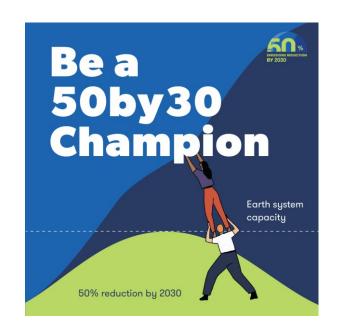
City of Cambridge Climate Adaptation Plan 2019



Cambridge Connection: My grandmother was born in Galt in 1908.

#### Change is happening on a global scale

- USA has set a goal of 50-52% reduction by 2030, net zero by 2050
- Shell recently ordered to reduce emissions 45% by 2030
- Over 700+ global cities have committed to do their fair share to reach 50by30 (part of C40 Cities)
- Vancouver City has committed to 50by30
- Halifax has committed to a 75% reduction by 2030



#### Reaching 50 by 30: Thousands of Jobs, Millions of Dollars

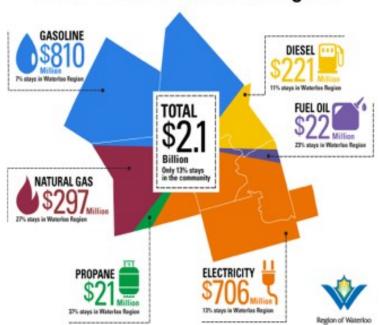
**50by30 Creates Jobs:** Halifax estimates that carrying out their 50by30 plan will generate **90 000 person years of employment** over the coming decade.

That's like a new Toyota Plant opening every year.

Who would say no to that many jobs?

Generating renewable energy locally will also help to keep **millions of energy dollars** in the region, according to the Waterloo Region *Community Energy Investment Strategy.* 

# How much did we spend on energy in 2014 within Waterloo region?





#### Big Benefits to being out front

Veriform: a *Cambridge company* aggressively reducing its GHG emissions while *growing its workforce, expanding its plant and increasing its profits.* 

Their success proves that this is *not* a decision between environment & economy.

#### Business

# Green companies leading the way in Ontario

The boss of metal fabrication shop VeriForm realized energy wasting is also a waste of money, joining a growing number of companies taking on green initiatives.



#### World has begun a profound transformation

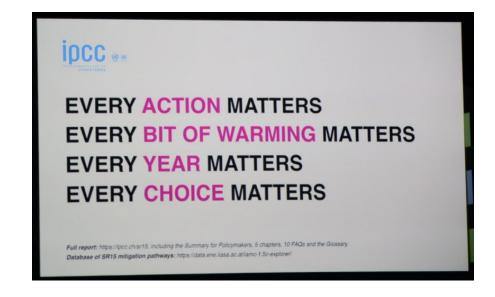
both in terms of climate impacts and how societies will respond to them.

#### Speed is justice.

Every amount of carbon released matters

Every little bit of warming avoided reduces the risks of **irreversible climate impacts**, lessens devastation to **vulnerable communities**, reduces harm to the **natural world**, and means a more intact, safer planet **for our children**.

The carbon we release here in Waterloo Region does matter.



Moral and ethical obligation to reach 50% by 2030

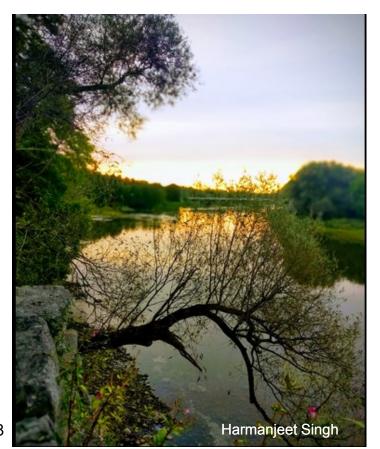
#### Your decisions today create "The Cambridge of tomorrow"

A community that leads on climate action because it's the right thing to do.

A safer community that proactively prepares to meet future crises in the strong, steady way it always has.

A more prosperous community with thriving businesses that contribute to leading edge solutions.

A community that ensures *everyone* benefits from the safety and prosperity that results from taking leadership and committing to 50by30.



## ENVIRO-STEWARDS

# Affordable Climate Action Cambridge Council June 8, 2021

## **Agenda**

#### Purpose:

 Demonstrate affordable paths to prevent and adapt to climate change

#### **Process:**

- Affordable paths to Climate Neutral & Beyond
- Achilles Heel of Tendering

### Payoff:

 Stewardship of taxes, Action on Climate Change, Adaptation & smaller footprints

















#### **Enviro-Stewards**

- We cultivate resilient businesses and
- improve lives in extraordinary ways





















# Climate Action WR Goal 3: Low Carbon Business

- Maple leaf Foods (MLF) set targets to reduce water, energy, and waste 50% by 2025
- Enviro-Stewards completed energy, water, and pollution prevention assessments at 35 facilities
- 2019, Maple Leaf became the World's First Major Carbon Neutral Food Company (while saving millions/yr in operating costs)









Maple Leaf sponsored 35 Biofilters including St. Paul's nursery (above)

# Improving lives: SAFEWATER PROJECT

TEDx "Better than Charity"



Empowering social ventures to sustainably provide safe water in their communities







## **Existing Rainwater Reuse System:**



#### **Enviro-Stewards Own House:**

- 97% less outside air required
- 78% red'n in GHG/employee
- 0 L/yr tap water for living wall for 5 yrs
- With Blue Roof will save:

20% more energy

50% more water

Reduce peak flow during storm events

Absolute reduction to date



78% reduction/employee (with E2) Offset twice remaining balance







# **Enviro-Stewards Demonstration Affordable Smart Blue Roof (ASBR)**

- Replaced Roof (May 17 to May 28th, 2021):
  - air temperature 30°C on May 21, 2021
- Lighter materials (saves 5lb/ft²)
- Thermal Savings
  - R-value: 50% savings
  - Colour: 55% savings
  - Net 78% reduction!

59.3 °C

40.3 °C



25 °C

Note: a bucket of water on the roof May 21<sup>st</sup> measured 20°C (cooler than the indoor temperature) which indicates evaporating water from the roof could potentially reverse the direction follows flow (provide AC) even on 30°C days!

## A Practical Lucrative Path to **Become Climate Positive**

#### PATH TO CLIMATE POSITIVE

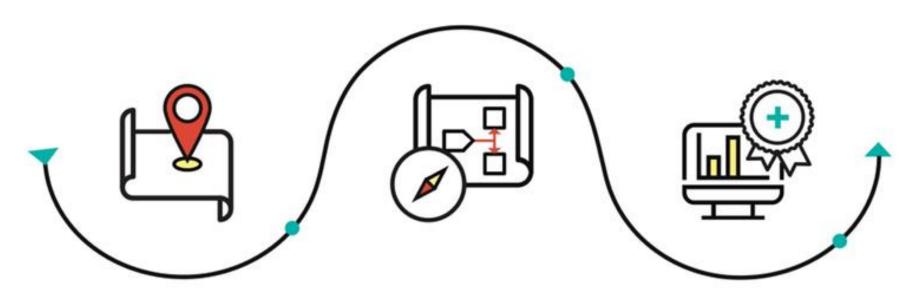






#### A Practical Path to Become Climate Positive

dicrosoft will be carbon negative by 2030'



#### Baseline

Assess supply chain, processing and packaging footprints to select areas of focus and quantify resulting gains

## Identify

Identify & quantify practical footprint reduction measures and their associated business cases

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## Implement

Implement, verify and report on footprint reductions secured. Then sustainably offset the remaining balance

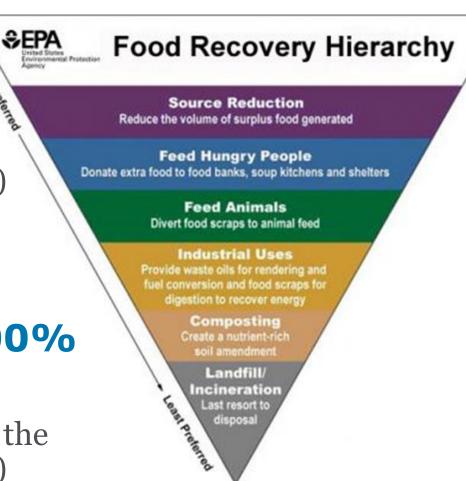


# Climate Action WR Goal 4 & 5: Food Waste Prevention

- 1/3 of all food is presently wasted
- If it were a country, food loss would be the 3<sup>rd</sup> largest GHG emitter (after USA & China)
- \$49 billion CDN in lost value

## If Succeed in diverting even 100%

- 1/3 of all food will still be wasted
- If it were a country, food loss would remain the 3<sup>rd</sup> largest GHG emitter (after USA & China)
- >90% of 49 billion CDN in lost value







## **Energy Reuse & Food Loss Prevention:**

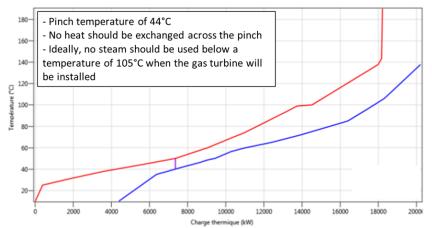
## **Process Integration (PI) Study:**

- 3,233,000 kWh/yr
- 4,570,000 m3/yr of gas
- 123,000 m3 of water

**\$1,645,000/yr** with 2-year payback

## **Food Loss Prevention Study**

• \$706,000/year food savings with 6-month payback (938 tonnes/yr of food) and 4,000 tonnes/yr of GHG





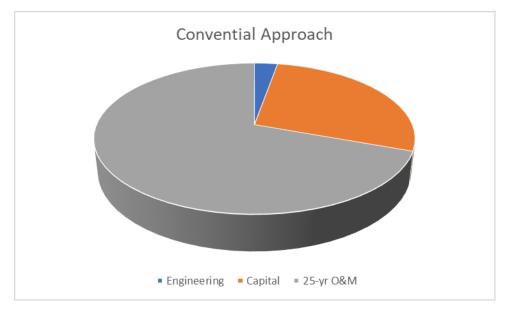
## **Achilles Heel of Tendering:**

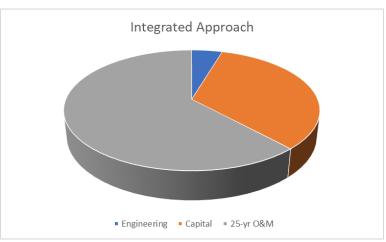
Lowest price = low quality, zero innovation & higher life cycle costs



## **Life Cycle Cost Comparison:**

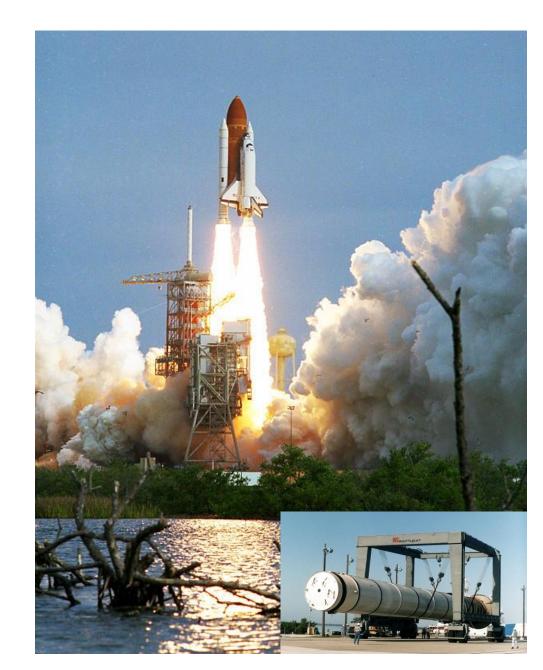
Investing in design up front reduces capital & operating costs.







# Q&A:





# engineering change

## Bruce Taylor

btaylor@enviro-stewards.com

enviro-stewards.com

Good morning Councillor Wolf,

I am a resident of your ward and writing today to voice my support for the TransformWR climate action strategy, which I believe Council will be discussing at an upcoming meeting.

I ask you to please support this strategy as one important step toward making Cambridge a resilient, inclusive and sustainable community. The action items contained within the strategy covering transportation, buildings, homes, waste and food, would not only reduce emissions but would also result in significant opportunity for our city in terms of jobs, innovation, social justice, poverty reduction and more.

As a longtime Cambridge resident, when I think of the future I'd like to see for myself, my family and future generations, I think of a just, equitable, prosperous community that prioritizes social and environmental well-being. I strongly believe the TransformWR strategy lays out some of the concrete steps to help Cambridge and the broader region realize that vision.

Thank you for your consideration. Jessica Fisher