

Community Profile





Mayor's Message

The City of Oshawa is building on a century of success with 2024 representing an important milestone in our city's history. This year is our centennial and a unique opportunity to reflect on a century of influence our community has had across Canada and around the world.

In 1864, McLaughlin Carriage Company started with an idea—a curiosity about transportation—and developed innovations such as the McLaughlin Gear; a swiveling fifth wheel. In 1892, the Pedlar Metal Roofing Company became one of the largest sheet metal factories in the British Empire with warehouses as far away as Cape Town, New Zealand and Sydney. In that same year, Schofield Woolen Mills were manufacturing innovative woolen products distributed across Canada for over 50 years. The Oshawa Railway of 1894 went on to offer passenger express and freight services by 1911. Robson Tannery played a major role in Canadian war efforts during WWI and WWII. In 1907, The McLaughlin Motor Car Company led to General Motors of Canada in 1918. Oshawa was an already well-established centre for thriving industry when it was elevated to city status on March 8, 1924.

Indeed, some of the greatest milestones in Canadian history have been achieved in Oshawa and that success continues today. We're a resilient community that continues to reinvent itself: perseverance has been a part of our DNA for generations. We embrace the traits of our industrious history and continue to apply them to this day in pursuit of a bold and dynamic future. I encourage you to be curious about our community and the great potential it has to offer, as so many innovators have throughout Oshawa's great history.

Our Community Profile publication offers a unique glimpse not only of where we have been, but our promise for the future. We look forward to sharing that with you as we continue to chart a path of ambitious growth in the great city of Oshawa. Here's to the next century.

Dan Carter

Mayor, City of Oshawa



Message from the Chair

As we reflect on our city's centennial year and 100 years of economic development in Oshawa, you will notice that innovation is not a new concept to our community; it's something we've embraced for generations. As we look to our next century, we're seeing great promise in the fields of agriculture, healthcare, education, logistics, energy, artificial intelligence, cybersecurity, augmented reality, and electric vehicles. Oshawa will lead with new knowledge-based industries to supplement traditional industries and as a globally recognized city for research and innovation that produces new ideas and solutions in an increasingly complex world. Look no further than advancements in nuclear energy, Project Arrow, SmartARM and the da Vinci Surgical System to name a few of the ways our community is marking its mark on the world today.

Oshawa continues to grow rapidly as a dynamic metropolitan city and economic power-house on the global stage. 2023 marked yet another transformational year, which was record setting as one of the strongest city-building years ever, marked by all-time industrial sector building activity. The city achieved total building permit activity of over \$1.5B in value over the past two years. To note, job creating industrial building permit activity in 2023 exceeded any year in Oshawa's recorded history.

These impressive numbers tell the story of Oshawa's exciting transformational propulsion; further positioning us as a dynamic metropolitan city that continues to gain the attention of job creating global giants and industry-leading blue-chip companies. Prestige employment lands such as Northwood Business Park are bringing to our doorstep major new job creating blue-chip class A tenants like global dairy giant Lactalis Canada who have chosen the great City of Oshawa for their newest and largest global distribution centre and investing substantially in our community. We're looking forward to welcoming many more dynamic new companies while fostering the existing businesses that call our great city home and will write the next chapter in Oshawa's great history.

Councillor Tito-Dante Marimpietri

Chair of the Economic and Development Services Committee





Table of Contents

The Oshawa Advantage	2
Access and Connectivity	6
A Transforming Economy	8
A Dynamic City	10
A Growing Community	16
Living in Oshawa	18
Talent Development	22
Cost Competitiveness	26
TeachingCity Oshawa	30
Downtown	32
Entrepreneurship	38
Filming	40

Key Sectors

Advanced Manufacturing	44
Health and Biosciences	46
Multimodal Transportation	48
Information Technology	50
Energy Generation	52
Emerging Growth Sectors	54

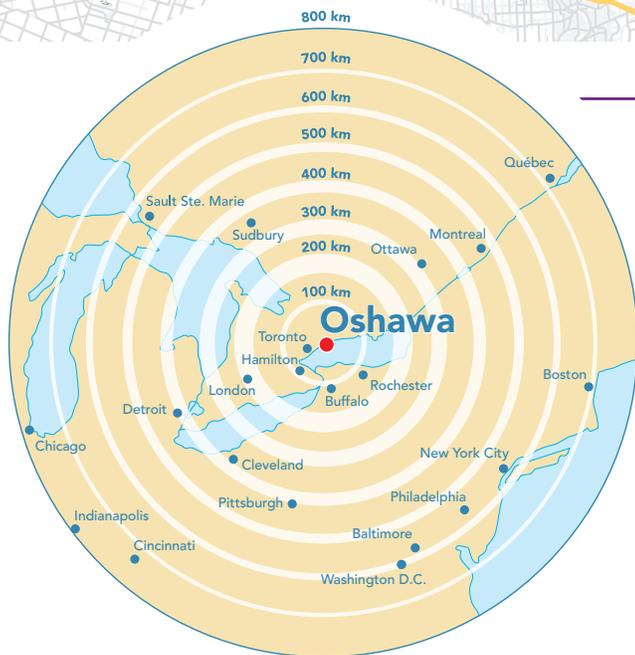
The Oshawa Advantage

Located along the north shore of Lake Ontario, the City of Oshawa is the largest urban municipality in Durham Region with a population of 185,000, comprising an area of approximately 143 square kilometres (55 sq. mi.) and an eastern gateway to the Greater Toronto Area (G.T.A.).

Only 60 km from Downtown Toronto, companies in Oshawa have quick and convenient access to Canada's largest consumer market of more than 6 million people and are located within a day's drive of more than 135 million North American Consumers.



Talent The City of Oshawa is a thriving gateway to the most populous region of Canada and one of the largest concentrations of economic activity in North America. Oshawa offers a labour force of over 2.8 million workers within a 45 minute commute. The city is home to a rapidly growing student population of 30,000 across three top ranking post-secondary institutions and a satellite family medicine program: Durham College, Ontario Tech University, Trent University Durham GTA and the Queen's University Lakeridge Health MD Family Medicine Program. Oshawa post-secondary institutions have graduated over 140,000 global alumni. Market-driven education combined with globally-renowned research facilities have created a unique concentration of Oshawa talent that is highly sought after by top companies.



Distance to Major Centres

Toronto, ON	58 km/36 mi
Buffalo, NY	222 km/138 mi
Ottawa, ON	392 km/243 mi
Windsor, ON	410 km/254 mi
Montreal, QC	486 km/302 mi
New York, NY	805 km/500 mi
Washington, DC	841 km/522 mi
Boston, MA	848 km/527 mi
Chicago, IL	880 km/547 mi
Atlanta, GA	1,598 km/993 mi

The Oshawa Advantage (continued)

Innovation The City of Oshawa has been ranked by CBRE as one of the top five markets for tech talent growth in Canada. Local educational and research assets such as the Durham College MRC Studio, AI/ Hub and Centre for Cybersecurity Innovation continue to build pipelines of talent in emerging sectors. Ontario Tech University's ACE Climatic Aerodynamic Wind Tunnel is one of the most sophisticated of its kind in

the world. From Project Arrow to SmartARM and from the McLaughlin Advanced Test Track to the Lakeridge Health da Vinci Surgical System, there are remarkable examples of innovation in every corner of our community. The City of Oshawa is a regional innovation centre, host to entrepreneurial incubators such as the Spark Centre, Brilliant Catalyst and FastStartDC.





Value Oshawa companies enjoy the benefits associated with doing business in Canada. According to the Conference Board of Canada, remote work continues to provide Torontonians with an opportunity to move to cities with a lower cost of living such as Oshawa. Canada has one of the lowest costs of doing business in the world, including generous research and development tax incentives and the second lowest business costs among the G7 countries according

to KPMG. The World Bank states that Canada is the easiest place to start a business in the G20. Locally, Oshawa industrial and downtown development has an exemption from development charges. As one of the fastest growing communities in Canada, our city continues to embrace a large influx of young families who are seeking value and proximity to the G.T.A. You will continue to find both in the City of Oshawa.

Access and Connectivity

The City of Oshawa is more than a gateway to the G.T.A., it's a gateway to the world. With easy connections to multiple U.S.A. border crossings into New York, Michigan and Minnesota, Oshawa offers superior access to American markets. Oshawa is one of the few mid-sized cities that boasts an airport, rail lines, a deep-sea port and 400-series highways all within one community, offering importers and exporters a competitive edge.

Oshawa Port The Port of Oshawa is Durham Region's gateway to the world, handling more than 500 vessels that have carried over 3 million metric tons of cargo over the past decade. On average, the Port of Oshawa handles \$23 million worth of cargo annually, from salt and steel products to asphalt and grain. The port offers the benefit of full seaway draft, a workforce skilled in handling all types of cargo and access to world markets through the St. Lawrence Seaway. Oshawa continues to serve as a highly efficient gateway to supply essential construction materials to residential and civil infrastructure projects within the G.T.A. Oshawa has also seen increases across the board in steel products.

Oshawa Executive Airport The Oshawa Executive Airport features a modern terminal, capable of facilitating corporate business travel and general aviation. The airport offers dual runways able to service a broad range of aircraft, modern navigational aids, hangar space and a variety of aviation services to meet business needs. Canada Border Services Agency staff are available upon request.

Roads Infrastructure Highway 407 East provides Oshawa with another point of access across the G.T.A. With tolls now removed from Highways 412 and 418, highway travel around the region offers more convenience than ever.

Oshawa Port Announces Partnership to Establish Lake Ontario Short Sea Shipping Corridor with United States
The Hamilton Oshawa Port Authority (HOPA Ports) announced an agreement with an affiliate of Beowulf Electricity & Data Inc (Beowulf), the U.S. owner of an expansive 1,800-acre site on the southern shore of Lake Ontario to create a bi-national, low-emission, short sea trade corridor. The new partnership will forge connections between the Port of Oshawa, Ontario and a new port in Somerset, New York by establishing a multimodal shipping terminal.



Commuter and Freight Rail The Province of Ontario has passed Bill 131, enabling the GO Transit Station Funding Act, 2023. This is a significant milestone in expanding rapid transit across Durham Region and beyond. The Lakeshore East GO Train extension has an estimated economic value of \$1.1 billion in transit-oriented, walkable urban development. The expansion is estimated to generate 21,000 permanent new jobs. There is an estimated \$70 million in annual savings to residents via reduced commuting time and improved road safety. Furthermore, a 50 million kilometre per year reduction in private vehicle use is expected, significantly reducing the amount of CO2 emissions. Additionally, Oshawa benefits from CN and CP Rail infrastructure linked to the GM assembly plant, the Port of Oshawa and other key industrial stakeholders offering local, national and international transportation accessibility.

Simcoe St. Rapid Transit Visioning Study

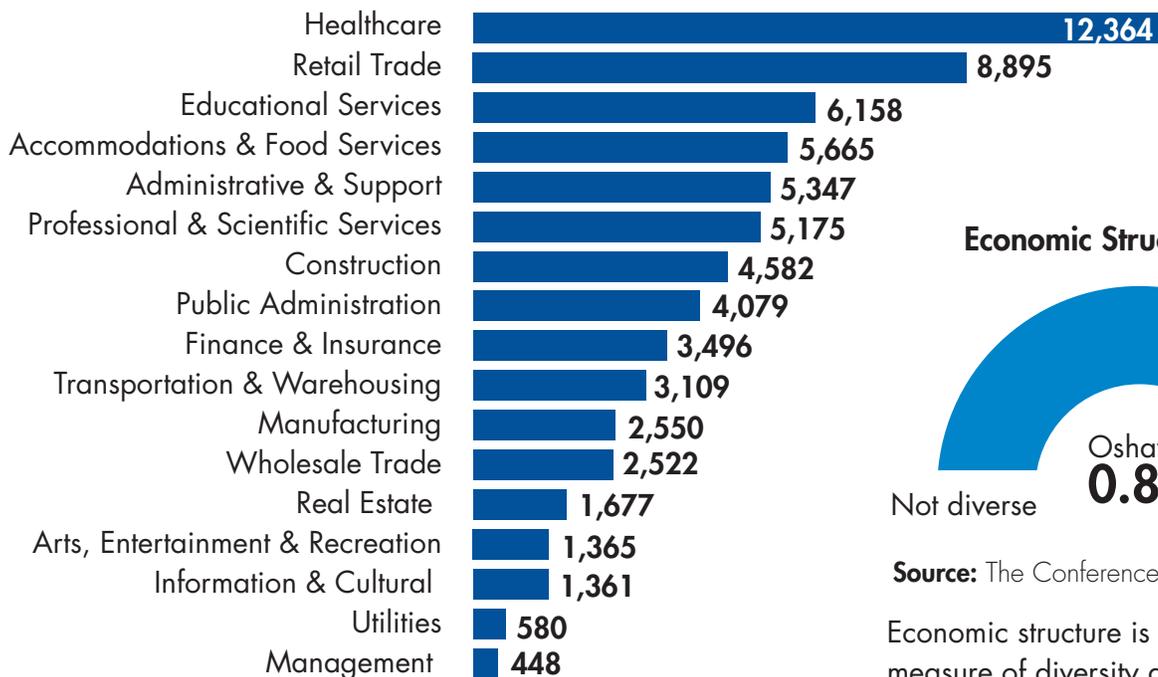
Durham Region, in consultation with the City of Oshawa, is working on a Visioning Study that will identify a suitable form of Rapid Transit along Simcoe St. between Highway 407 and Lakeview Park Beach, with a connection at the proposed Central Oshawa (Ritson) GO Station. The Study will produce both a vision and an Initial Business Case to guide how 500 Howard St. will evolve and grow, with a focus on mobility, sustainability, equity, economic opportunity, and land use.



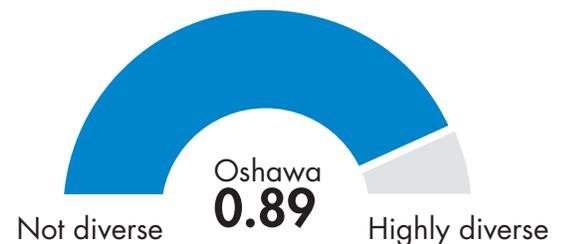
A Transforming Economy

Oshawa's favourable proximity to Toronto, Canada's most important economic hub, has led Oshawa to achieve some of the highest population growth in Canada, bringing with it an influx of new talent to our community. With hybrid work, the Conference Board of Canada anticipates that many will opt to move to cities such as Oshawa that continue to benefit from a lower cost of G.T.A. living. According to the Conference Board of Canada, Oshawa's gross domestic product is set to grow by 1.8% in 2024, and 2.5% in 2025, exceeding the growth of both Ontario and Canada. As the City of Oshawa's economy continues to diversify, major job growth leaders in 2023 include the professional services sector (+9.2%), educational services sector (+8.5%), and the finance, insurance, and real estate sector (+7.3%).

Jobs by Employment Sector



Economic Structure, 2022



Source: The Conference Board of Canada,

Economic structure is expressed as a measure of diversity and thus stability on a 0 to 1 scale. At 0.89, the City of Oshawa is considered to have a highly diverse and stable economic structure.



Oshawa's dynamic and diverse economy is composed of:

- Healthcare **17%**
- Retail Trade **12%**
- Educational Services **8%**
- Accommodations & Food Services **8%**
- Administrative & Support **7%**
- Professional & Scientific Services **7%**
- Construction **6%**
- Public Administration **6%**
- Finance & Insurance **5%**
- Transportation & Warehousing **4%**
- Manufacturing **3%**
- Wholesale Trade **3%**
- Real Estate **2%**
- Arts, Entertainment & Recreation **2%**
- Information & Cultural **2%**
- Utilities **1%**
- Management **1%**
- Other **7%**

Household Income Per Capita (\$)

2024	54,297
2025	55,479
2026	56,568
2027	57,713

Total Employment (000s)

2024	229
2025	233
2026	237
2027	240

Real G.D.P. at Basic Prices (\$ millions)

2024	15,547
2025	15,936
2026	16,303
2027	16,661

GDP Projections Canada

- 2024 **1.5%**
- 2025 **2.3%**
- 2026 **2.2%**
- 2027 **1.9%**



A Dynamic City

Oshawa is emerging as a dynamic metropolitan city, gaining the attention of major global corporations and industry-leading companies. Prestige employment lands such as Northwood Business Park are bringing in thousands of new job opportunities, further strengthening a dynamic and diverse economic base within our community.

Ontario Power Generation's decision to locate their new corporate headquarters in Oshawa will welcome 2,000+ jobs.

In a major 2023 announcement, Ontario Power Generation (OPG) is set to establish a new corporate headquarters in the City of Oshawa. With the consolidation of corporate offices from across Ontario, OPG selected Oshawa as the new centre of operations at 1908 Colonel Sam Dr. OPG's decision will bring over 2,000 highly skilled corporate staff to Oshawa, alongside their existing presence at the Pickering and Darlington Nuclear Generating Stations. With this announcement, OPG will establish a new high-tech energy headquarters promoting innovation and collaboration between their many partners and suppliers. OPG's Oshawa headquarters will encompass a 26,433 sq. m. (284,522 sq. ft.) office building on 29.94 hectares (74 acres) of land. Full occupancy is expected in 2025. With an electrical generating portfolio including hydroelectric, nuclear, solar and biomass, OPG is one of the most diverse electricity generators in North America. OPG produces approximately half of the electricity Ontarians rely on every day.

144-155 First Ave. A new mixed-use development is being proposed for the lands at 144-155 First Ave., directly south of where the new Central Oshawa GO Station will be located. The proposed development in central Oshawa will bring new vibrancy to the area as it transitions from a former industrial site, toward a transit-oriented neighbourhood.





Future home of
ONTARIO POWER
GENERATION

A Dynamic City (continued)

Ontario Vehicle Innovation Network (O.V.I.N.)

O.V.I.N. is a Provincial program created to encourage the collaboration of industry, academia and government for the development of connected and autonomous vehicles. As one of the six Regional Technology Development Sites (R.T.D.S.), Durham Region works alongside partners to create a space for small to medium-sized enterprises to test and validate emerging technologies and prototypes.



ACE Moving Ground Plane Ontario Tech University unveiled this new milestone at the ACE Climatic Wind Tunnel, placing Canada on the technological forefront of climatic aerodynamic research and development. The addition of a seven-metre (22.96 foot) single belt Moving Ground Plane, a giant belt that acts as a road moving under a vehicle, will reproduce aerodynamic forces against moving vehicles while measuring physical characteristics in real-world conditions. The ACE Moving Ground Plane offers diverse industries with “Plug and Play” tools to conduct research in a high-tech environment, helping companies and researchers create new energy efficient products such as active aero, energy efficiency maximization and carbon emission reduction.

Environmental and Related Technologies Hub (EaRTH District)

As the global climate crisis accelerates, Durham College, Ontario Tech University and Trent University Durham GTA have joined together with Centennial College and University of Toronto Scarborough (UTSC) to advance clean, green, sustainable solutions, such as net-zero vertical farming and technology to reverse groundwater pollution. Dedicated to fueling sustainable, resilient communities locally and around the world, EaRTH District will

Did you know? Oshawa was home to **267 new business openings** in 2023.



develop the region's sustainable technology sector through research, academic programming and commercialization of advanced technology. An EaRTH-commissioned study projects the district to generate \$8.4 billion in total direct cumulative output, \$1 billion in taxes and more than 4,000 jobs over the next two decades.

Ontario Tech University to pursue licence enhancing high-tech nuclear facilities

Ontario Tech University is enhancing its high-tech nuclear laboratory facilities with the addition of new equipment, unique among all educational institutions in Canada. Known as the Subcritical Assembly Project, the new equipment at Ontario Tech will enable enhanced hands-on experiential learning opportunities



for students, a key aspect of many of Ontario Tech's highly regarded energy and engineering programs, including Canada's only undergraduate Nuclear Engineering degree program. The distinct design features of a subcritical assembly will offer an ideal enhancement to the University's top-level nuclear engineering teaching and training.

Projected Unemployment Rate

2024 **5.4%**
2025 **5.3%**
2026 **5.2%**
2027 **5.1%**

Conference Board of Canada

Northwood Business Park

Comprised of 202 hectares (500 acres) of developable employment land, this area has the advantage of being located in close proximity to the Ontario Tech University/Durham College main campus, Highway 407 East and the Oshawa Executive Airport. A plan for regional servicing of Northwood has now been approved.

Property details

Gross Area +/- 292 hectares (721.55 acres)

Developable Area Estimated at 202 hectares (500 acres)

Oshawa Official Plan Land Use Designations

Industrial, Special Purpose Commercial and/or Local Central Area, Open Space and Recreation.

Frontage Thornton Rd. N., Stevenson Rd. N., Taunton Rd. W. and Conlin Rd. W.

Zoning (Arterial Rd.s) Select Industrial, General Industrial, Special Purpose Commercial, Planned Commercial Centre, Automobile Service Station, Park Open Space, Environmentally Sensitive Open Space, Hazard Lands Open Space and/or Urban Reserve.

Servicing Approved and budgeted by Region of Durham.

Highlights

- Location bounded by Taunton Rd. W. to the south, the Oshawa-Whitby boundary to the west, Highway 407 East to the north and the Oshawa Creek to the east.
- Northwood Business Park consists of multiple privately-held properties with a distribution of open space areas.
- Water and sewer infrastructure projects are being advanced by the Region of Durham.
- Pre-zoned employment lands.
- Minutes to Highways 401 (Stevenson Rd. S.), 407 East (Simcoe St. N.), 412 and 418. Adjacent to the Oshawa Executive Airport. Served by Regional Bus Transit.
- In proximity to leading post-secondary institutions and research facilities — Ontario Tech University, Durham College, and The Automotive Centre of Excellence (ACE).
- Environmental Assessment for Stevenson Rd. N. is anticipated to be completed in 2024.



A Growing Community

The Oshawa Census Metropolitan Area (CMA) continues to be a leader in population growth across Canada. This growth is projected to continue to lead all of Durham Region through 2041. The City of Oshawa has made national headlines as a top destination for those migrating out of Toronto. According to a 2021 HuffPost article, Oshawa is one of the best cities to move to within the G.T.A. Oshawa, which ranked fifth and was the only municipality in Durham Region to make the list. According to the Conference Board of Canada, Oshawa benefits from being close to Toronto, Canada's largest consumer market. Being only 60 kilometres (37 miles) east of Downtown Toronto, Oshawa has become increasingly attractive to families seeking more affordable housing than those in Canada's largest cities. Housing demand continues to lift economic activity in several sectors, including construction, finance, insurance, and real estate.

Columbus Part II Plan This Part II Plan was adopted by City Council on June 26, 2023 and includes new growth areas to accommodate up to 24,000 new residents. The proposed draft plan includes new growth areas of 396 hectares (979 acres) of developable land and a range of 7,057 to 10,996 units in a mix of low, medium and high density.

Kedron Part II Plan Expected to accommodate 22,000 new residents on 466 hectares (1,151 acres). Ten new schools and a number of new parks are expected. The plan permits for up to 22,483 sq. m. (242,000 sq. ft.) of commercial space.

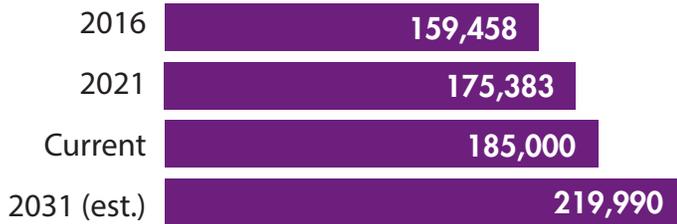
Envision Durham Region of Durham Official Plan

	2021	2026	2031	2036	2041	2046	2051
Oshawa							
Urban	180,980	199,230	218,320	238,320	256,880	276,800	297,450
Rural	1,040	1,050	1,060	1,070	1,070	1,080	1,090
Total Population	175,383	200,280	219,990	239,390	257,950	277,880	298,540
Households	66,640	73,800	81,450	89,060	96,680	104,710	112,970
Employment	63,740	70,600	78,070	85,250	92,110	99,670	107,280



Canada has the **#1 best quality of life** in the world —US News & World Report Ranking Magazine

City of Oshawa Total Population



Source: Durham Region Official Plan Projection

Total building permit values
2022–2023 **\$1.5 billion**



Did you know? Oshawa’s **population** has grown by **16%** from 2016 to 2023. That amounts to over **25,000 new residents** calling Oshawa home.

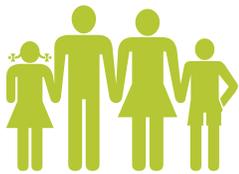


2031 Population Projection
1,000,000 Durham Region Residents

Living in Oshawa

Oshawa continues to gain momentum as an economic hub and major destination within the G.T.A.; one that new residents and companies are gravitating to more than ever. Oshawa's population growth has been amongst the highest in Canada, with recent years of record-setting construction to meet the needs of our growing community and one of the best places to live, learn, work and invest. The Oshawa census metropolitan area (C.M.A) is a leading destination for those across Ontario and Toronto, with total net migration between 2016-21 of 29,335 and 52,395 respectively. Notably, Oshawa has attracted one of the highest percentages of migrants in the 25-34 age category, making it one of the most attractive destinations in Ontario for young families seeking a lower cost of living while maintaining proximity to Toronto.

Parks and Trails Oshawa's extensive park and recreational trail system encompasses over 410 hectares (1,013 acres) of parkland and provides more than 27 kilometres (16.7 miles) of paved surface to explore. Oshawa parks and recreational trails are great places to enjoy the outdoors with friends and family.



Sources of Migration Forecast

Year	International	Intercity
2024	2,450	4,710
2025	2,420	4,720
2026	2,360	4,720
2027	2,340	4,730

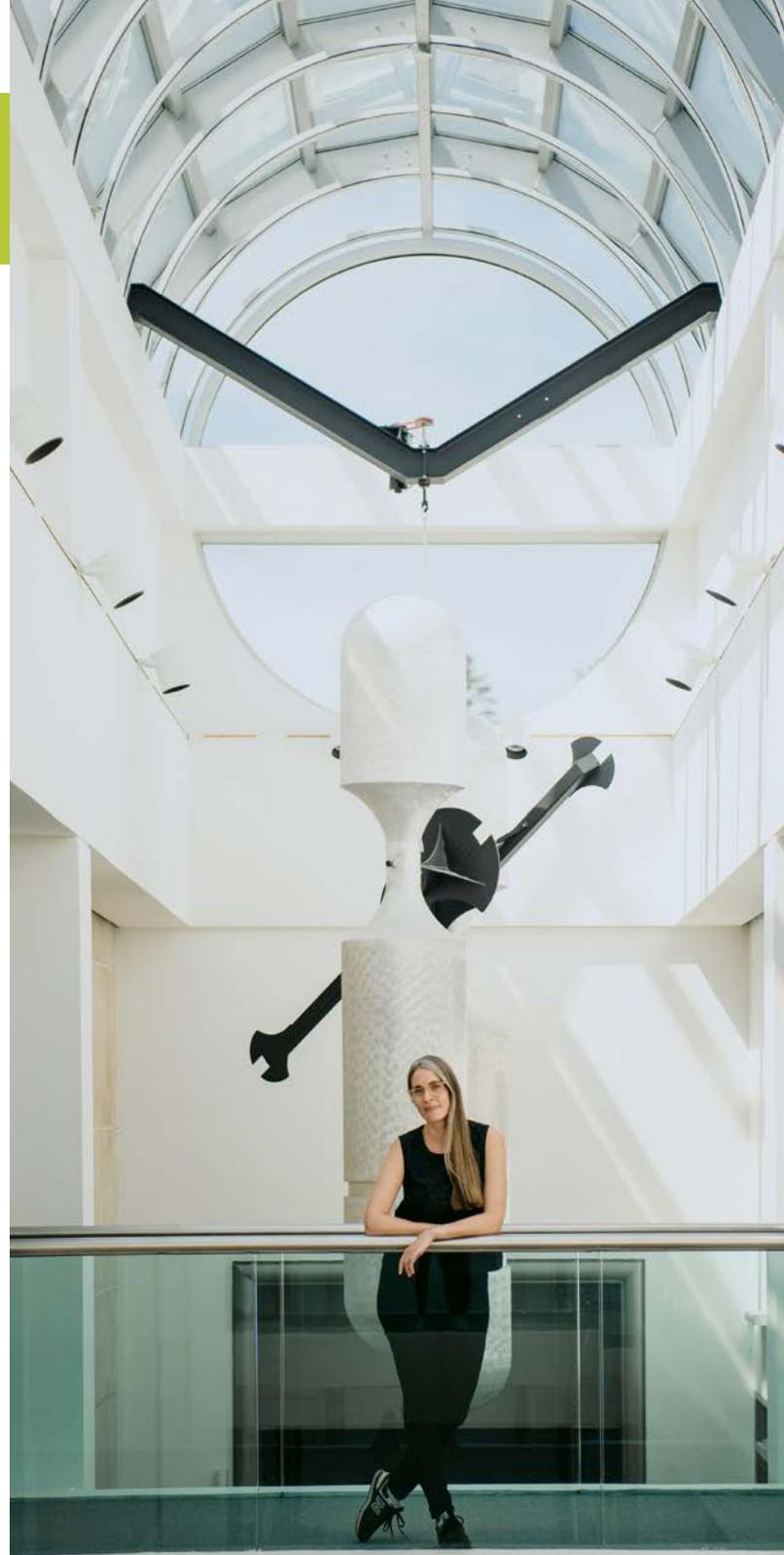


Culture and Festivals Oshawa is an amazing location to host a special event or festival. The City of Oshawa has a wide variety of venues including parks, arenas and facilities. Oshawa hosts and facilitates many annual events and tournaments ranging from one-day celebrations to multi-day festivals. These events attract more than 50,000 spectators and visitors from across the city and beyond. Oshawa's Peony Festival and Kars on King have been recognized by Festivals and Events Ontario (F.E.O.) for offering some of the best events in the Province. These two signature events have been named in the Top 100 Festivals and Events for 2024.

Household Income Per Capita, 2022 (\$)



Source: The Conference Board of Canada, Statistics Canada



Living in Oshawa (continued)

Gold Point Wildlife Reserve Gold Point Wildlife Reserve, located at the southwest corner of Stevenson Rd. S. and Phillip Murray Ave, is home to a number of significant environmental features. The Wildlife Reserve was designed as a passive recreational destination, which respects and protects the significant natural environmental features of the site.

Oshawa Lakefront Nestled along the shore of Lake Ontario, Lakeview Park with its mature landscape setting has views of the lake and is a beautiful, community park. Exploring the Joseph Kolodzie Oshawa Creek Bike Path, Larry Ladd Harbour Trail and Waterfront Trail, visitors can connect to Oshawa's vibrant downtown, Oshawa Second Marsh, McLaughlin Bay Wildlife Reserve, and the historical Oshawa Museum among other attractions. Lakeview Park is host to many family fun events and also home to the Jubilee Pavilion which provides a banquet hall, restaurant with lakeside patio and public meeting place. A massive tower-like structure is the centrepiece of a new lakefront playscape attracting families from across the G.T.A. with its exciting features and breathtaking waterfront views. Kids can also enjoy a variety of net climbers, ziplines, spinners, a rope swing, fully-accessible junior play structure and splash pad.



Ed Broadbent Waterfront Park Located at Simcoe Street and Harbour Road, Ed Broadbent Waterfront Park is the City of Oshawa's newest addition to the waterfront parks system. The design of Ed Broadbent Waterfront Park encourages gathering with an amphitheatre, stage and seating, a network of concrete and asphalt pathways, green spaces, and a Garden of Human Rights.

Oshawa Tourism Oshawa Tourism is here to expose you to the incredibly active, unique, creative, and engaging collective of makers, creators, and businesses within our vibrant community. Register for their newsletter to have first access to all the exciting things happening around the city: OshawaTourism.com



Talent Development

The City of Oshawa is the proud home of Durham College, Ontario Tech University, Trent University Durham GTA and the Queen's University Lakeridge MD Family Medicine Program. These globally-recognized institutions and programs offer our region access to top talent, are home to world-renowned centres for research and development and generate innovative business solutions for our community. With approximately 30,000 post-secondary students enrolled annually and over 140,000 global alumni, our community is brimming with opportunity for those looking to tap into talent.

Durham College With a dynamic campus in Oshawa, Durham College offers over 11,400 full-time students access to more than 140 post-secondary programs, including four honours bachelor degrees and nine apprenticeship programs. Applied research at Durham College – facilitated by the Office of Research Services, Innovation and Entrepreneurship (ORSIE) and its five research centres – solves business and social challenges through innovation and collaboration by engaging industry, faculty, students and the community at-large in research projects to address the needs of a technology-driven knowledge economy.



Canada is the **most educated country in the G7** with 67% of the Toronto Region having a post-secondary degree.



Did you know?

Oshawa's tech talent growth is one of the strongest in North America.



Trent University Durham GTA The Oshawa campus of Trent University opened in 2010, building upon 50 years of presence in Durham Region. With nearly 3,000 students enrolled annually, the campus offers Bachelor of Arts and Science degrees, post-graduate certificates and master's programs. The campus focuses on the needs of business management and community health and wellness, offering community-based research to their partners. Trent University Durham GTA is renowned for the innovative and

ground-breaking research conducted by faculty and students, on campus and around the world.

The Trent University Durham GTA Advanced Learning Centre, located in the heart of Oshawa at 11 Simcoe St. N., opened to hundreds of new students in the fall of 2023

Talent Development (continued)

Queen's University School of Family Medicine

Queen's University and Lakeridge Health have announced an innovative and first-of-its-kind-in-Canada education and training approach that will help to address physician shortages. Building on a longstanding partnership, Queen's University and Lakeridge Health are poised to help address the primary care physician shortage in southeastern Ontario by taking a novel approach to medical education. This new model seamlessly integrates the training of medical students and residents, which are currently separate programs, to graduate practice-ready, community-focused physicians. As part of a provincial announcement that will expand medical school seats across Ontario, the Queen's Lakeridge Health collaboration for health sciences education began offering 20 new medical school seats in 2023 at the Lakeridge Health satellite campus. Queen's University students will undergo classroom training at Lakeridge Health and engage in workplace experiences embedded in our community.



Tech Talent Growth North America

Toronto 2.0%

Seattle 1.7%

Oshawa 1.5%

San Francisco Bay Area 1.5%

New York City 1.5%

Boston 1.2%

Chicago 1.2%

Source: LinkedIn Talent Insights, 2022

Ontario Tech University With two campuses in Oshawa, Ontario Tech is a modern, forwarding-thinking university that advances the discovery and application of knowledge to accelerate economic growth, regional development and social innovation. Researchers, students and graduates are inspired and equipped to make a positive impact in a tech-focused world through understanding and integrating the social and ethical implications of technology. With seven faculties, more

than 10,000 students in over 115 programs, the STEM-focused University houses more than 80 specialized research laboratories and facilities. Ontario Tech is home to 11 Canada Research Chairs, attracting world-class talent in fields such as healthcare simulation, the Internet of Things, linguistics information visualization, artificial intelligence, adaptive aerodynamics, nuclear fuel and materials and electric energy storage systems for transportation electrification.



Cost Competitiveness

World-leading companies continue to set up shop in Canada for exceptional access to global markets, unparalleled talent, low costs of doing business and low business risk. Some of the largest Fortune 500 companies are expanding existing operations or establishing new research and development hubs in Canada. Ranked 38th in global population, Canada punches well above its weight. Canada is home to the world's 13th largest economy (in terms of F.D.I. inflows). Canada gives investors preferential market access through 15 trade agreements to 51 countries with nearly 1.5 billion consumers and a combined GDP of USD\$52 trillion.



Local Incentives The City of Oshawa offers a variety of incentive programs to support investment and development. Municipal initiatives in addition to the development charge exemption already referenced include:

- Brownfield Community Improvement Plan offers a property tax cancellation program and a redevelopment grant
- Oshawa Public Utilities Corporation—Energy Conservation and Retrofit Grants
- Employment Service Agencies—Targeted Wage Subsidies
- Increased Assessment Grant

International Trade Agreements

CUSMA The Canada-United States-Mexico Agreement (CUSMA), which took effect in 2020, replaced the North American Free Trade Agreement (NAFTA) and modernizes continental trade.

CETA The Canada-European Union Comprehensive Economic and Trade Agreement (CETA) ensures 98% of EU tariffs are duty-free for Canadian goods and guarantees market access to both the EU and North America. Over the course of the next seven years, a further 1% of tariff lines will be phased out, making 99% of all Canadian goods entering the EU market duty-free.

CPTPP The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) gives companies operating in Canada preferential access to one of the largest trading blocs in the world, including key markets in Asia and Latin America. Oshawa has an exemption from development charges for industrial development. This would represent a savings of nearly \$900,000 per 10,000 sq. m. (107,000 sq. ft.) of development. Oshawa is truly open for business.

Did you know? The City of Oshawa has no downtown Development charges.

G.T.A. Industrial Space Lease Rate

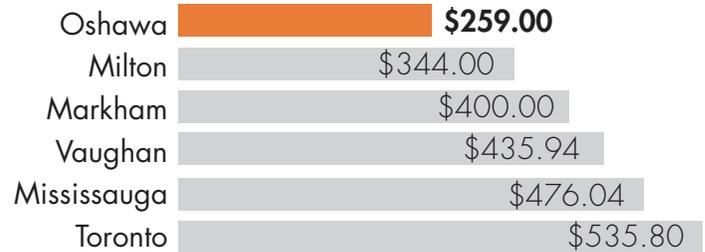
(average net asking lease rate/sq. ft.)



Source: CBRE Marketview Toronto Industrial Q4 2023

G.T.A. Industrial Space Sale Price

(average asking price/sq. ft.)



Source: CBRE Marketview Toronto Industrial Q4 2023

Cost Competitiveness (continued)

Industrial Lease Rates Industrial Lease Rates deliver exceptional value, making Oshawa one of the most cost-effective cities in the G.T.A. Excellent future development opportunities are supported by infrastructure and local incentives.

Oshawa welcomes global supply chain leader Martin Brower to Northwood Business Park

Panattoni Development Company has partnered with Stonemont Financial Group and BentallGreenOak to bring a major industrial development to Northwood Business Park. Martin Brower will occupy 16,030 sq. m. (172,545 sq. ft.) of ground-floor area including an office with mezzanine. Martin Brower's new Oshawa facility will join 70 global hubs in 18 countries, handling complex logistics and supply chain operations for 25,000 restaurants. In Canada, Martin Brower currently employs 1,000 staff across six facilities. It is estimated that this development will generate a further 175 direct jobs.

Lactalis Canada Inc. selects Northwood Business Park for their largest global distribution facility

Lactalis Canada Inc. has broken ground on a new 35,210 sq. m. (379,000 sq. ft.) distribution centre located in Oshawa's Northwood Business Park, creating approximately 80 jobs. Expected completion Q4 2024.





Canada is the **#1 most attractive country for immigrant start-up founders** compared to all other Organisation for Economic Co-operation and Development (OECD) countries. —OECD, 2023

At **26.2%** in 2023, Canada's combined federal-provincial statutory **corporate income tax rate** is the **4th lowest in the G7**.
—OECD Tax Database, April 2023

At **13.0%**, Canada's tax treatment for new business investment is the **lowest in the G7**, below the **OECD average** and **significantly lower than the United States (17.8%)**.
—Finance Canada, 2022

TeachingCity Oshawa

TeachingCity Oshawa brings together the City of Oshawa and its education and research partners – Durham College, Ontario Tech University, Trent University Durham GTA and the University of Toronto’s Department of Civil and Mineral Engineering. The City and its partners focus on studying and addressing urban issues in Oshawa through innovation, collaboration, applied research and shared experiential learning opportunities with the aim to position Oshawa as a local, national and global community of urban research and learning.

Interactive Public Art A new interactive map developed through a collaboration with Durham College Media, Art & Design students and The Robert McLaughlin Gallery (RMG) highlights public art in Oshawa. The mobile-friendly map allows Oshawa residents and visitors to interact with six public art pieces in the city’s downtown. At each artwork, community members can scan the featured QR code to read and/or listen to learn more about the artist, the artwork, and more. Art enthusiasts can collect unique badges in the app while interacting with the artwork through the map. After collecting all six badges, community members can show the badges at the RMG for a free prize.



**TeachingCity
Oshawa**





Dungeons, Dragons, and Neurodiversity

John Smith, a student from Trent University Durham GTA's Department of Child and Youth studies has been piloting a new Dungeons & Dragons (D&D) Club out of the Oshawa Civic Recreation Complex. This unique programming provides neurodiverse youth with an opportunity to collaborate with their peers, socialize, and slay dragons to achieve collective goals. Opportunities such as these help foster meaningful friendships for neurodiverse youth in our community. This collaboration between Trent Durham and the City's Inclusion Services team within Recreation Services has been very successful. The program has attracted youth from across the region, leading to Trent Durham seeking further funding to support ongoing development and expansion.



A Look through Diverse Lenses Throughout the 2024 winter semester, Social Science and Humanities students enrolled in the Issues in Diversity course at Ontario Tech University were challenged with developing equity audits for a variety of City locations, policies, programs, recruitment and communications. The class was taught about the importance of applying equity lenses when developing and implementing programs, initiatives and policies, in order to view and experience things from a different perspective. Student teams were asked to research an equity lens (race, gender, ability, age, language, etc.) and create an audit checklist of items staff should consider to ensure inclusion and equitable access for Oshawa residents. Students then were able to use their equity audit tools to conduct their evaluations and make recommendations.

Visit TeachingCityOshawa.ca, follow #OshTeachingCity on Twitter and Instagram, or scan the QR code to learn more.



Scan the code to learn more.

Downtown

As a major urban destination within the eastern G.T.A., Oshawa's downtown core is the heart of our community and home to three university satellite locations. Downtown Oshawa is a growing entertainment, arts, culture, education and shopping/dining district within Durham Region; a vibrant, attractive and animated destination where people come together to meet and engage.

From hockey games and live music to art exhibitions and stand-up comedy, you will find a broad range of venues and attractions to complement your business. Downtown Oshawa is home to more than 50 unique restaurants, offering cuisine ranging from vegan to gourmet ice cream, poutine to Thai, and fine dining to casual bistro.



Work Hard, Play Hard

Downtown Oshawa is Durham Region's capital for live music, entertainment and performing arts. With popular venues such as the Tribute Communities Centre, Biltmore Theatre, Regent Theatre and BOND|ST Event Centre, Downtown Oshawa is host to hundreds of thousands of visitors throughout the year. Whether you're a fan of Elton John, Eric Church, Selena Gomez, Luke Combs, Cirque Du Soleil, live comedy, symphonies, art galleries, museums or OHL hockey games, you'll find it right here, in the heart of Downtown Oshawa.

A Culinary Destination

Bon Appétit. With over 50 unique restaurants to choose from, Downtown Oshawa was recently rated as the #1 spot for foodies in Durham Region.

- Avanti Trattoria
- Ave's Coffee Co.



- BanBan Korean Fried Chicken
- Belle Vie Cafe & Bakery
- Berry Hill Food Co.
- Bollywood Tacos
- Bond St Snack Bar
- Brew Wizards Board Game Cafe
- Cafe House Oshawa
- Cork & Bean
- Isabella's Chocolate Cafe
- Kenzo Ramen
- Legend of Fazio's
- Market at 70 King
- Mathilda's
- Pizza Munno
- Riley's Pub
- Spicy Affairs
- Street Momo

- Uncle Fluffy Japanese Cheesecake
- The White Apron

Incentive Programs

The City of Oshawa offers a variety of popular incentive programs to support private investment and development. Oshawa's Community Improvement Plans (C.I.P.) have encouraged significant investment in the community.

In the past year, \$500,237 worth of C.I.P. grants were awarded. The Urban Growth Centre Community Improvement Plan consists of five grant programs:

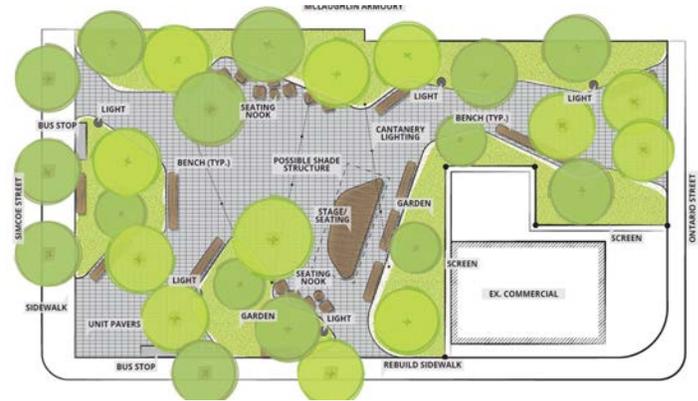
1. Conversion to Residential Grant Program
2. Economic Stimulus Grant Program
3. Façade and Accessibility Improvement Grant Program
4. Increased Assessment Grant Program
5. Upgrade to Building, Fire and Electrical Safety Codes Grant Program

Downtown (continued)

Convergence Festival On September 23, 2023, Convergence Festival brought thousands of visitors to Downtown Oshawa for an incredible day of live music, art, an international street food alley, light shows and so much more. Congratulations to Oshawa Tourism for bringing this unique event to Downtown Oshawa. Convergence is now an annual event in Downtown Oshawa.



A New Public Park in the Heart of Downtown Oshawa The City of Oshawa is planning to introduce a new urban square to the downtown core at the northeast corner of Bond St. E. and Simcoe St. N. This new urban square will improve the quality of life of a growing downtown with construction planned in 2024.



A Vibrant Downtown Post-Secondary Student Population With more than 3,000 students studying in Downtown Oshawa, Ontario Tech University and Trent University Durham GTA have a significant presence in Downtown Oshawa with multiple buildings centrally located in the core of the community. The footprint includes Bordessa Hall, 2 Simcoe St. S., 61 Charles St., Regent Theatre at 50 King St. E. and the Baagwating Indigenous Student Centre at 151 Athol St. E. Trent University currently occupies 11 Simcoe Street North with their new Advanced Learning Centre.



a new academic hub as well as commercial spaces. Construction is anticipated to begin in 2027, with the building being operational by 2030.

Downtown Business Growth

BOND|ST Event Centre 44 Bond Street East
Originally constructed for the GM United Auto Workers Union Local 222, The Sacco Group purchased the building in 1996. The building was home to multiple tenants over the years including The Dungeon and Laser Quest. Renamed “BOND|ST Event Centre” in 2020, The Sacco Group restored and enhanced the building while keeping its historical integrity and structure. The ambition was to contribute to the arts, culture, and entertainment in Downtown Oshawa.

Downtown Oshawa has welcomed many new businesses throughout the past year including:

- Alafia Bakery
- BanBan Korean Fried Chicken
- Banu Zulaikha
- Church’s Texas Chicken
- Clarisse's Hair Braiding Studio & Beauty Supplies Inc.
- The Collective Market Oshawa
- Market at 70 King
- The Rooted Barber Experience



Downtown Sidewalk Snow Clearing Program

Supported by the Oshawa Accessibility Advisory Committee and approved by City Council, the downtown sidewalk snow clearing service is now permanent after a two-year pilot. The program adds over 12 kilometres of sidewalks to our existing operations. Busy pedestrian areas of our downtown will now become more accessible to residents and visitors of local businesses.

Ontario Tech University reaffirms long-term commitment to Downtown Oshawa location

Ontario Tech will further enhance its long-term commitment to Downtown Oshawa with the recent purchase of a parcel of land at 154 Bruce St., adjacent to its existing operations in the 61 Charles St. building. The new purchase of land along the north side of Bruce St. (east of Charles St.) signals exciting new growth opportunities for Ontario Tech in Downtown Oshawa in the coming decades; creating





Entrepreneurship

Brilliant Catalyst Ontario Tech University Brilliant Catalyst's mission is to inspire and empower the next generation of change makers by building a community of experts, entrepreneurs, advisors, and influencers to fuel innovative change and put more Canadian ventures on the map. That is why Brilliant Catalyst focuses on cultivating top talent.

Spark Centre Spark Centre began in 2010 as one of many Regional Innovation Centres (RIC) across the province. Alongside the other RICs in Ontario, Spark Centre provides resources and on the ground

commercialization and services to innovative and technology-based entrepreneurs and businesses.

Spark Centre serves technology and innovation entrepreneurs who require knowledge and support to launch, develop and grow. In order to be a client at the Spark Centre your business needs to be under five years incorporated, and you must be making less than one million dollars annually in revenue. Your product or service must be innovative; it must be creating something new or improving an existing product or service. It must also have some level of technology; such as breakthrough research, ICT devices, or products or services based on the internet.





FastStartDC FastStartDC is a free, extra-curricular program offered to students of Durham College. Students from all of DC's programs and from any campus are eligible to participate.

The FastStartDC program is designed to help entrepreneurial students develop and launch their own businesses, while they are studying at Durham College.

Filming

Lights, camera, action! Filming in Oshawa continues to grow as another great addition to our local economy. Film companies benefit from diverse filming locations, a welcoming community and no film permit fees. Oshawa has issued film permits for studios such as Netflix, Amazon, Disney, CNN, Universal Pictures, HBO Max and Hulu.

2023 Filming Projects

- Botanical Jungle (TV Docuseries)
- Cross (TV Series)
- Matlock (TV Series)
- The Madness (TV Series)
- The Way Home (TV Series)

2022 Filming Projects

- The Boys (TV Series)
- Flint Strong (Feature Film)
- Gotham Knights (TV Series)
- Gray (TV Series)
- The Handmaid's Tale (TV Series)
- In the Dark (TV Series)
- Titans (TV Series)



Did you know?

Parkwood National Historic Site is one of **Canada's top 10** filming locations.





Key Sectors

City of Oshawa launches new 10-year Economic Development Strategy

The City of Oshawa is pleased to announce the launch of its new Economic Development Strategy that aims to drive job growth and further investment in the city. The Strategy focuses on enhanced trade, diversification and quality of life and positions Oshawa for future economies, opportunities and overall growth.

The Strategy builds on the city's unique competitive strengths, such as proximity to major metropolitan centres, a robust labour force, emerging talent and key infrastructure assets such as air, sea, rail and highways, and aims to strengthen existing economic sectors in advanced manufacturing, modern technology and science driven businesses and services.

To complement existing sectors such as healthcare, education, advanced manufacturing and energy generation, emerging sectors were identified in high-growth fields such as:

- Artificial Intelligence
- Augmented Reality

- Cybersecurity
- eSports
- EV and Automotive Technologies

Through the new Economic Development Strategy, the City will continue to support its traditional economic sectors while further developing the emerging growth sectors.



Scan the code to learn more.

Real-Time Relocation Decisions. Real-Time Data.

The City of Oshawa Economic Dashboard is an open-source application which aims to guide business and investment decisions utilizing real-time consolidated economic data. Over 50 metrics are continuously tracked and available for download to help make your decisions. Visit oshawa.ca/economicdata

Sector Profile **Advanced Manufacturing**

Advanced manufacturing has ushered in new methods in the production of goods and services using computer-controlled and micro-electronics-based equipment, including CAD design, robots and automated storage systems. Increased innovation and technological adoption now involves new manufacturing processes that encompass innovative technologies such as 3D printing and machine learning.

Assets

- ACE at Ontario Tech University
- Durham College School of Skilled Trades, Apprenticeship and Renewable Technology
- General Motors Canadian Technical Centre
- Integrated Manufacturing Centre at Durham College
- OPG Engineering Building at Ontario Tech University

Key Companies

- AGS Automotive Systems Oshawa
- Canfab Packaging
- Cleeve Technology International
- Draka EHC
- Fresh Del Monte Produce
- General Motors of Canada

Manufacturing Sector Degree/Diploma Programs Offered in Oshawa:

- Applied and Industrial Mathematics (B.Sc.)
- Automotive Engineering (B.Eng., M.ASc., M.Eng., PhD)
- Electrical Engineering (B.Eng.)
- Electrical and Computer Engineering (M.ASc., M.Eng., PhD)
- Engineering Management (M.Eng.M, Graduate Diploma)
- Manufacturing Engineering (B.Eng.)
- Mechanical Engineering (B.Eng., M.ASc., M.Eng., PhD)
- Mechanical Engineering Technician, two-year Ontario college diploma
- Mechanical Engineering Technology, three-year Ontario college advanced diploma
- Mechanical Technician - Millwright, two-year Ontario college diploma
- Software Engineering (B.Eng.)



Did You Know? Oshawa is one of the **top 3 mid-sized advanced manufacturing clusters** in North America, defined as high location quotient communities with total cluster employment under 50,000.

Sector Profile **Health and Biosciences**

Oshawa has witnessed the transformation of its local economy over the last decade where healthcare now represents the largest economic sector. The healthcare sector accounts for over 12,000 jobs in Oshawa and represents 17% of the City's employment base. This sector has grown by approximately 45% over the past decade. The city is a centre of excellence in healthcare and a regional hub for education, training and clinical research activity. The health and biosciences sector encompasses a variety of businesses including medical research, the development of pharmaceuticals, digital health, precision medicine, development and manufacturing of medical health devices with technological elements such as artificial intelligence, and the healthcare system itself. The health and biosciences industry generates significant economic growth annually, representing 11% of Canada's annual G.D.P.

New Centre of Excellence in Robotic Surgery

The introduction of a regional, robot-assisted surgical program and the da Vinci Surgical System to Lakeridge Health Oshawa will transform the way Lakeridge will offer surgery in Durham Region, especially for cancer patients. The da Vinci Surgical System is a minimally invasive robotic tool that acts as an extension of the surgeon operating it. The surgeon, who sits within a console in the same room as the patient and equipment, uses realtime 3D-imaging to view inside the body via the da Vinci's camera arm. The four other arms of the robot are manipulated through hand-controls in the console that are directly linked to the equipment. The arms of the robot, which offer one surgeon the same access as two, operate in tiny, precise and controlled movements that are beyond the capabilities of a human hand.



LHEARN Centre The Lakeridge Health Education and Research Network (LHEARN) is on the cutting edge of teaching healthcare practitioners the skills and knowledge they will need in order to succeed in the ever-evolving field of medicine. As Oshawa's largest employer, Lakeridge Health utilizes world-class training technologies to attract and retain medical talent in our city. High fidelity patient simulators mimic hundreds of real world pathologies. This innovative approach allows medical residents to practise unlimited clinical scenarios in a risk-free environment, which translates into better care for our city. Every year, Lakeridge Health welcomes nearly 2,000 students across a broad range of health disciplines as they pursue their studies in state-of-the-art facilities under the guidance of expert instructors. To date, Lakeridge Health has also been host to over 600 research studies and clinical trials across many clinical programs.

Did You Know? About 40% of the world's single-use medical devices, such as syringes, gloves, implants and surgical instruments, are irradiated and sterilized with Cobalt-60. Currently, Cobalt-60 is extracted from Durham Region nuclear reactors every 24 to 30 months.

Healthcare Assets

- Grandview Children's Centre
- Lakeridge Health
- Lakeridge Health Education and Research Network (LHEARN)
- The Oshawa Clinic Group represents the largest multi-speciality medical group practice in Canada
- Post-secondary programs supporting the Health Sector at Durham College and Ontario Tech University

Key Companies

- Linde Canada Inc.
- Orthodont
- Paradigm Clinical Trials
- Prosthetic Technologies



Sector Profile **Multimodal Transportation**

Oshawa is one of few cities that can boast an airport, rail lines, a regional deep-sea port and major highways all within close proximity. Companies appreciate that the deep-sea port's loading dock is located just 2 kilometers (1.2 miles) from Highway 401. With the completion of a rail spur, the Hamilton-Oshawa Port Authority is truly intermodal, and able to respond to the growing demands of current and prospective port clients.

Assets

- **Air** The Oshawa Executive Airport can accommodate a range of aircraft—from small recreational planes and 20-passenger business jets to 70-passenger turbo prop commuters. Corporate travel and just-in-time freight services are expedited with the presence of Canada Customs and fixed-based aviation services (FBO). Toronto Pearson International Airport (Canada's largest airport) is located only 70 km/43 mi from Oshawa
- **Rail** CN Rail and CP Rail
- **Roads** Highway 401, Highway 407 East, Highway 412 and Highway 418
- **Seaway** Hamilton-Oshawa Port Authority accommodates any size or type of vessel that transits the St. Lawrence Seaway System and is fully intermodal with CN rail spur





Key Companies

- Aosom Canada Inc.
- Canada Cartage
- Del Monte
- Enterprise Airlines
- GEODIS
- Lactalis
- Martin Brower
- Oshawa Stevedoring
- PiVAL International
- TMH Logistics
- TTR Transport

Durham Region Companies

- Amazon
- Flanagan Food Services
- Gordon Food Services
- Loblaw Companies Limited
- Sobey's
- Stryder Logistics
- Toyota Canada

Sector Profile **Information Technology**

Information Technology includes goods and services that process, transmit or receive information. These are technologies related to software, hardware, computer services, telecommunications, and microelectronics. I.T. is prevalent in e-commerce, e-learning, e-health, wireless multimedia and digital entertainment, in addition to emerging technologies such as artificial intelligence.

Assets

- Durham College AI/Hub
- Gaming and Virtual Reality Laboratory
- Hacker Research Laboratory
- Health Informatics Laboratory
- Marketing Laboratory
- Networking Laboratory
- OPUC Dark Fibre Optics
- Spark Centre Regional Innovation Centre

Key Companies

- Concentrix
- Compute
- IFTech
- Mojility
- Resource Software International (RSI)



The Toronto Region's tech industry is powered by over 285,000 skilled workers making it **one of the largest tech hubs in the world**. We are the third largest pool of tech workers in North America after San Francisco Bay Area and New York Metro.



TO THE LAB

GAME DEVELOPMENT
PROGRAM
GDSDA

Hand-drawn sketches of characters and icons.



Sector Profile **Energy Generation**

Durham Region plays a significant role in Canada's energy sector, with Ontario Power Generation headquartered in the City of Oshawa. Currently, Durham Region produces about 30 per cent of Ontario's electricity and includes a strong cluster of more than 250 companies—some of the largest and most innovative—in electricity generation and transmission, energy management, smart mobility, manufacturing, and engineering services.

Many Canadian and International companies have chosen Durham Region to be their home, including Hydro One, Ontario Power Generation, Elexicon Energy, Hubbell, ABB, Siemens, Aecom, RCM Canada, Veolia, Worley, Alithya, and many more. Oshawa's new 10-year economic development strategy aims to foster continued growth in this important sector.

The Brilliant Energy Institute (BEI) builds upon the energy research and expertise at Ontario Tech University to meaningfully contribute to Canada's leadership in the global transition to net zero by 2050, and to strengthen outcomes regionally, provincially and nationally, here at home. Their work supports deep decarbonization, sustainability and equitable access to clean, safe, abundant energy necessary for prosperity, quality of life, and climate resilience in communities across Canada and worldwide.

The Nuclear Simulation Teaching Lab is the most extensive nuclear power plant computer simulation of any engineering program in Ontario.

Assets

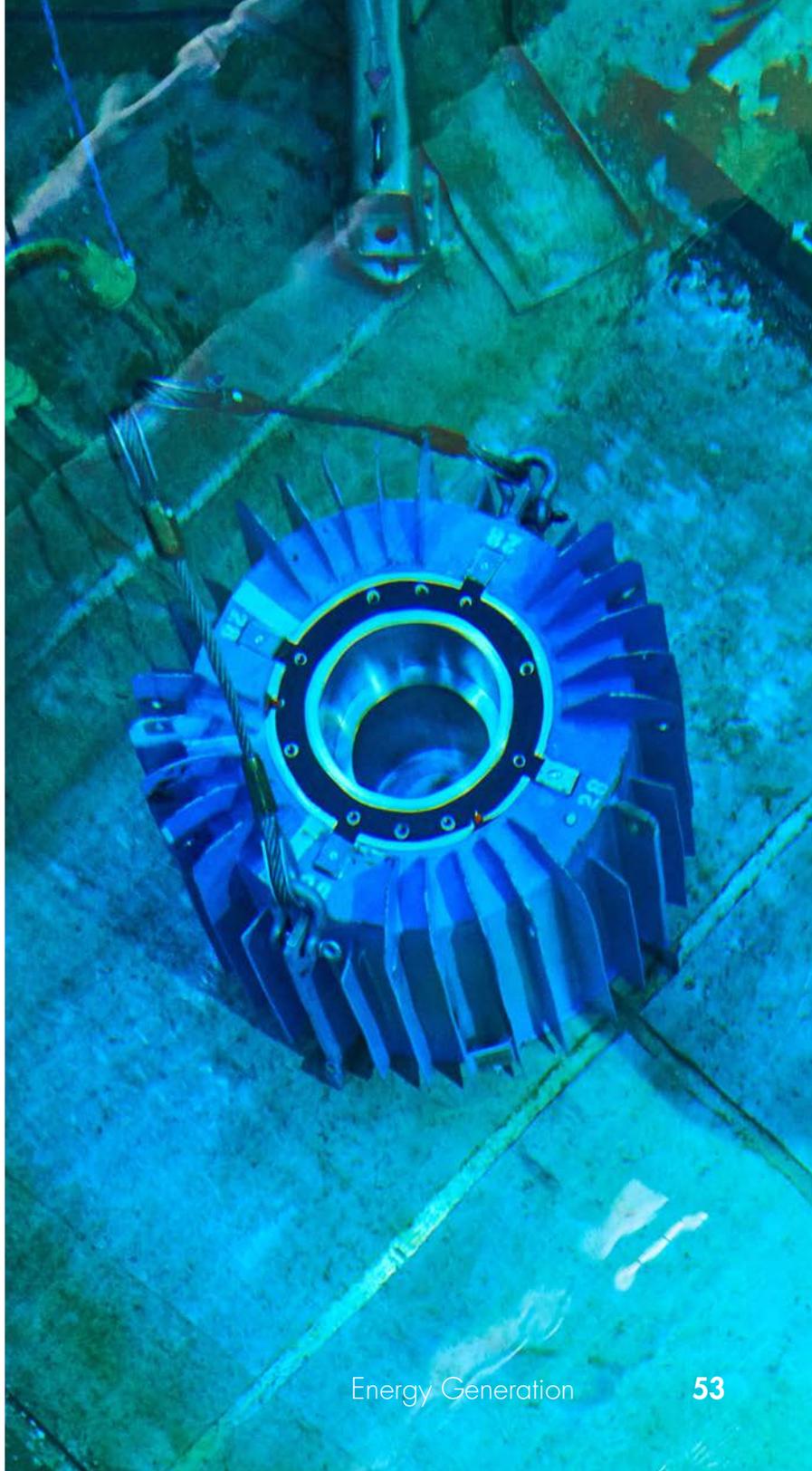
- Clean Energy Research Laboratory (CERL)
- Energy Systems Engineering Technology Program
- Energy Systems and Nuclear Science Research Centre (ERC)
- Nuclear Simulation Lab

Key Companies

- En-Pro International
- Lakeridge Precision
- Ontario Power Generation
- Oshawa PUC Networks

Darlington New Nuclear Project Ontario Power Generation has commenced planning and licensing for three additional Small Modular Nuclear Reactors (S.M.R.s), for a total of four S.M.R.s at the Darlington new nuclear site. Pending regulatory approvals to build three additional units, the total output of the Darlington New Nuclear Project would be 1,200 megawatts; enough electricity to reliably and safely power about 1.2 million homes, and help our community and the Province meet increasing demand from electrification.

Live-saving Nuclear Isotopes Nuclear isotopes, harvested directly from Ontario Power Generation's (OPG's) CANDU reactors, are used to sterilize medical devices and play an important role in medical imaging and diagnostic procedures, as well as in medicine and new drug development. From cancer to Alzheimer's to brain disease, medical isotopes are a game changer and OPG and its subsidiary, Laurentis Energy Partners, are leading the way for the world.



Sector Profile **Emerging Growth Sectors**

Artificial Intelligence

AI/Hub Durham College

The Durham College Hub for Applied Research in Artificial Intelligence for Business Solutions (AI/Hub) offers industry partners access to technical expertise, state-of-the-art facilities and platforms, and student talent. Businesses can uncover insights while providing intelligent and autonomous solutions that increase productivity and growth. The AI/Hub engages with existing businesses and start-up ventures utilizing advanced A.I. techniques and solutions to address practical business problems.



Applied Artificial Intelligence

Trent University Durham GTA

Exclusive to the Advanced Learning Centre in Downtown Oshawa, Trent University's professional

certificate in Artificial Intelligence includes the fundamental concepts of A.I., basic computer programming, algorithms of machine learning, statistics, information systems, and the history, ethics, social, and political implications of A.I.

Security, Artificial Intelligence, and Networks Lab

(SAIN Lab) Ontario Tech University

Julie Thorpe, PhD, Ying Zhu, PhD and Amirali Abari, PhD founded the Security, Artificial Intelligence, and Networks Lab (SAIN Lab) in 2017. The SAIN Lab performs applied, multidisciplinary, and innovative research on networks, computer systems, data, and intelligent decision systems. Their research touches many vibrant and exciting disciplines such as information security, privacy, artificial intelligence, application networks, and human computer interaction. Their motto is simple: "Do sane research at SAIN," where sane research is defined as impactful research that enhances the daily lives of people, nations, and organizations, as well as being the foundation of other impactful research and development. Lab members have access to high-performance GPU servers, high-performance traditional servers, and web servers. Members also have

access to the Human-Centred Computing Lab for running studies with human subjects.

Research areas include:

- Application Networks
- Artificial Intelligence
- Information Security and Privacy
- Network Science
- Recommendation Systems
- Usable Security

Augmented Reality

MRC Studio Durham College

The Durham College Mixed Reality Capture Studio (the MRC Studio) offers organizations access to technical expertise, a state-of-the-art motion capture stage with virtual reality tracking equipment and green screen space. Businesses can develop experiential applications, which integrate motion capture, virtual reality, augmented reality, and virtual production. Working together in the MRC Studio, solutions can be created that increase organizational productivity and growth.

Gaming and Virtual Reality Laboratory

Ontario Tech University

The Gaming and Virtual Reality Laboratory is dedicated to the study and development of games and game technology.

The lab includes:

- A full-body motion-capture studio.
- A variety of input technologies students can utilize for their game development needs.

- Audiometric room (sound booth).
- State-of-the art game development workstations.

EON Reality iCube (CAVE)

Ontario Tech University recently acquired an EON Reality iCube, a reconfigurable three-sided immersive environment with six-degrees-of-freedom tracking, stereoscopic 3D capabilities and various input devices. Within the EON Reality iCube, participants become completely immersed through appropriate imagery and sound, which allows for innovative and highly immersive games and virtual worlds to be created.





Chair of the Economic and Development Services Committee, Councillor Tito-Dante Marimpietri, tests out a new virtual reality tour of Oshawa's Northwood Business Park.

Cybersecurity

Centre for Cybersecurity Innovation Durham College

The Durham College Centre for Cybersecurity Innovation offers current and aspiring cybersecurity professionals, as well as public and private-sector organizations, access to applied research services and leading-edge education in cybersecurity to prepare for the everchanging and complex threat landscape.

Hacker Research Laboratory

Ontario Tech University

This cloud-based, networked and isolated lab houses various networking devices such as servers, firewalls, intrusion prevention/detection systems, and routers. Students use the lab to gain a good understanding of many

security concepts, including:

- data centre security
- information technology (IT) forensics
- malware analysis
- penetration testing
- secure communication

In this facility, students gain hands-on training in IT security from two perspectives: an IT security officer and a criminally motivated hacker.

Advanced Networking Technology and Security (ANTS) Research Lab

The Advanced Networking Technology and Security (ANTS) research lab at Ontario Tech University is home to state-of-the-art research and development of technologies for next-generation networks and critical infrastructures. It includes a security testing facility funded by the Canada Foundation for Innovation, a private research cloud environment and a software-defined networking testbed.

eSports

Durham College eSports Gaming Arena

With the opening of its eSports Gaming Arena in Oshawa, Durham College is taking a leading role in one of the fastest-growing industries in the gaming market. The 278 sq. m. (2,992 sq. ft.) venue is unique from any other collegiate gaming space in Canada thanks to its extensive broadcast capabilities and lounge area that can hold up to 120 spectators for eSports tournaments. Its industry-



grade design is providing students with vital hands-on experience to prepare them for career success in the global eSports market, which is exceeding \$1.6 billion per year.



EV and Automotive Technologies

McLaughlin Advanced Technology Track

As part of a \$170 million investment, engineers at Oshawa's Canadian Technical Centre (C.T.C.) are putting their "code-to-the-road"

on the newly completed C.T.C. McLaughlin Advanced Technology Track (C.T.C. M.A.T.T.). Featuring an oval-shaped design for continuous driving and four lanes with speeds ranging from 60 to 100 km/hour, the C.T.C. M.A.T.T. will support the testing of advanced General Motors vehicle software and technologies that will enable a future vision that is self-driven, all-electric and highly connected.

Project Arrow

Ontario Tech University's Automotive Centre of Excellence (ACE) was home to a top-secret and visionary national engineering project. Known as Project Arrow, the mission was to build Canada's first zero-emission concept electric vehicle. Project Arrow progressed from initial supplier meetings all the way to part design, fabrication, and full build on-site in the ACE Climactic Wind Tunnel at Ontario Tech University. Whereas today's cars are typically built on assembly lines, every design and fabrication detail of the Arrow, from the decision on type and placement for every bolt, to the full installation and build, was completed on campus by a team of experts and future talent from the University's engineering programs.







Oshawa Business and Economic Development Services

50 Centre Street South

Oshawa, Ontario, Canada L1H 3Z7

business@oshawa.ca

oshawa.ca/business

1-800-6-OSHAWA (1-800-667-4292)

905-436-5617

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If this information is required in an accessible format, please contact Service Oshawa.

Telephone: 905-436-3311 Email: service@oshawa.ca