

THE FUTURE OF THE GM LANDS IN OSHAWA, ONTARIO

By

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ABSTRACT

The 2019 closure of a General Motors Assembly in Oshawa, Ontario has left a large site available for redevelopment in the GTHA. While most discussions on this topic have focused on the job loss and economic impact on Oshawa, there have been no formal discussions about the development potential of this land. This paper seeks to challenge local stakeholders to reimagine the future of the GM Lands, as well as Oshawa as a whole, by providing case studies of post-industrial developments. This paper combines these case studies with a deep examination of the current economic, political, and planning situation in Oshawa and a dive into the history of brownfields for both the City of Oshawa and for General Motors.

Key Words: General Motors, brownfield, post-industrial, master-planned communities, economic development, Oshawa

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Figure 1

“Stockpiles of cars at GM plant in Oshawa.”

Photo taken by Keith Beaty in 1981. From the Toronto Star Archives.

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Figure 2

“Alan Forest, a copy mill operator, works on J-car stamping dies at General Motors' Fabrication Plant [in Oshawa]. Parts made from these dies will be used by assembly plants in Ohio; Wisconsin; Missouri; California and Oshawa.”

Photo by Alan Dunlop in 1981. From the Toronto Star Archives

RESEARCH INTRODUCTION

The City of Oshawa is a lower-tier municipality on the eastern edge of the Greater Toronto Area. It is home to 172,434 residents and is the largest municipality in the Regional Municipality of Durham (City of Oshawa, 2019). It has long been known as a manufacturing hub, with General Motors of Canada being the anchor tenant to the City. However, in 2018 this identity came into question after GM decided to cease operations in its Oshawa assembly plant at the end of 2019. With 344 acres of prime industrial land soon becoming idle, this research paper asks: what will GM do with the land? What should the City of Oshawa and the Durham Region push for? What precedents are there to follow?

Purpose – Why Write About This?

As someone who grew up in Oshawa, my entire childhood was influenced by GM. Family members drove GM vehicles with pride, relatives worked on the assembly lines for years, and weekends were spent watching Oshawa's OHL hockey team "The Generals" play at the "GM Centre" in downtown. I knew of GM and the role it had on my city from a young age, so when I heard of the final closure, a part of my hometown died. Yet, while heartbroken by the loss of employment, I became inspired to think of the future after this closure due to the unprecedented opportunity at bay. The GM Lands are ideally situated adjacent to both a transit arterial (Highway 401) and an interchange for that highway (Stevenson Road), as well as a railroad network serving regional rail (VIA) and local rail (Metrolinx) (see Figure 3). Both rail agencies have stations less than 500 metres away, with Metrolinx planning to create a new train line that will connect the site to downtown Oshawa (Snowdon, 2020). The area also borders both a low-density and high-density community, is close to downtown Oshawa, and is less than one kilometre from Lake Ontario (see Figure 3). In addition, the surge of real estate prices in the GTA has impacted Oshawa,



Figure 3 – This context map shows the GM Lands in the bottom (in orange), downtown Oshawa on the top (in blue), and the main transit nodes in the City: Highway 401, the VIA Rail Station, and the two proposed GO Train stations. Map was created using a Google Maps screenshot and then edited in Adobe Illustrator.

resulting in demand for new residential and commercial developments (RE/MAX, 2020). Finally, the City of Oshawa is no stranger to brownfield development. As this report will show, a good portion of Oshawa's downtown area is already built on formerly contaminated lands (Canadian Real Estate Association, n.d) and the City has a Brownfield Community Improvement Plan to encourage the development of contaminated lands (City of Oshawa, 2005).

Context – What is New?

This research paper is among the first academic studies to explore the future of the GM Lands in Oshawa. The closure of the plant generated substantial media coverage in Canada and the United States, with even Prime Minister Justin Trudeau tweeting about it (see Figure 4). However, no long-form articles, academic journals, or industry reports have been written about the future of the site. In the media, questions are still being posed about whether jobs will return to the site. While articles in the Toronto Star, National Post, and Globe and Mail have referenced the development opportunity of the site, no case-studies, potential plans, or recommendations have been made. This gap of information is where this article comes in.

Scope – What is Being Examined?

This research looks specifically at the history, existing conditions, and the future of the GM Lands in Oshawa, Ontario. Referencing case studies from Quebec and the United States, as well as academic research on post-industrial spaces, brownfields, and economic redevelopment, this paper seeks to offer a concise guideline for planners, politicians, and real estate professionals on how to address the GM Lands in Oshawa.

Benefit - Why is This important?

Post-industrial spaces will continue to become a topic of discussion as manufacturing continues to decline across Canada and the United States. Simply google “Life after GM” or any other major automotive company and you will find a plethora of media articles decrying the loss of a local industrial giant. A discussion needs to happen about the options municipalities and regional governments have to move forward from this loss. As shown in this paper, there *is* life after an industrial giant departs a company town and planners, politicians, and citizens should all be aware of the possibilities of a post-industrial legacy town. By providing a story of the future of Oshawa, this paper can hopefully excite others to think positively of the GM Lands, rather than see it as objectively negative, and inspire others to reimagine a time for Oshawa unlike before.

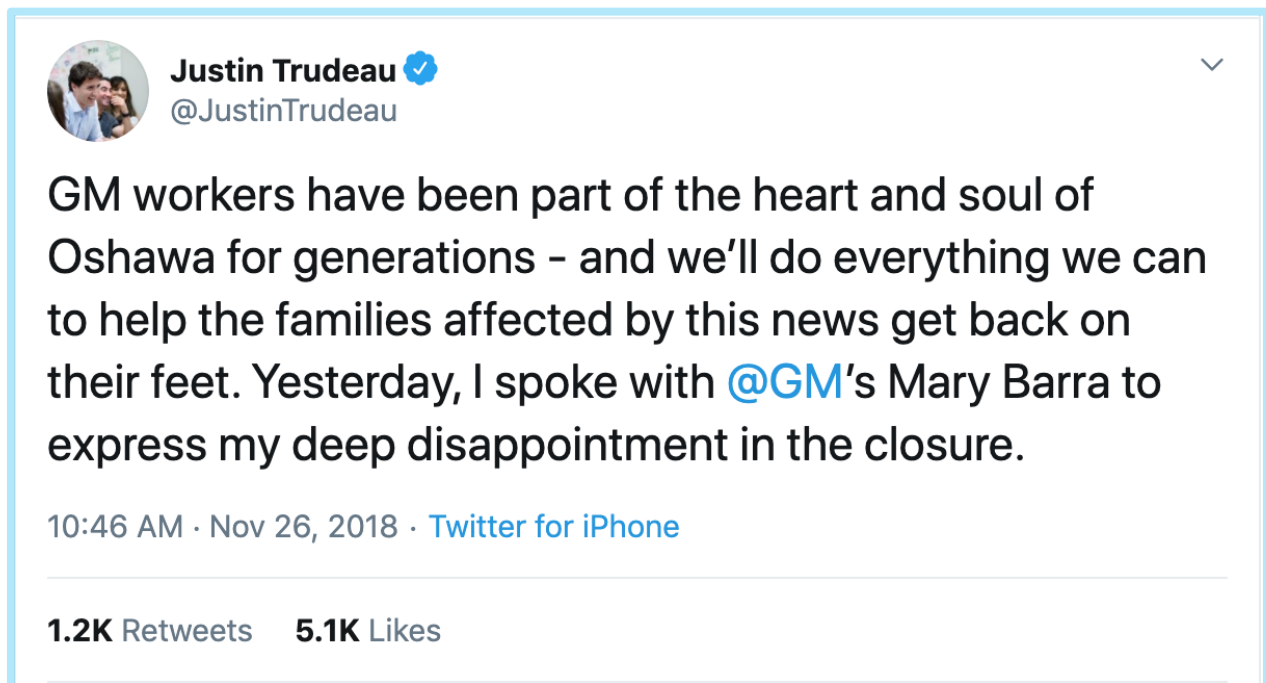


Figure 4 – A screenshot of Canadian Prime Minister Justin Trudeau’s tweet about the announced closing of GM’s Oshawa Assembly Plant in 2018.

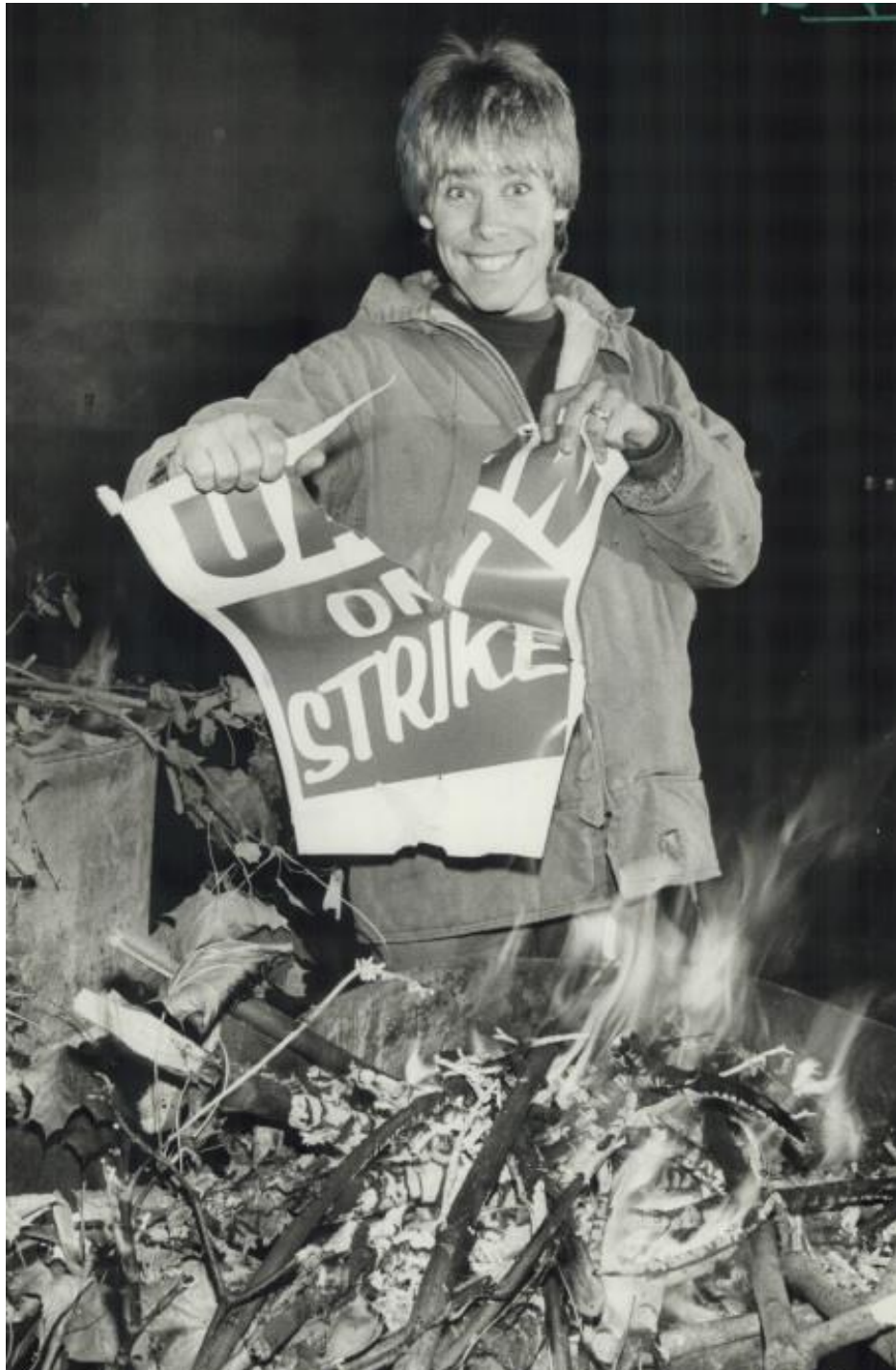
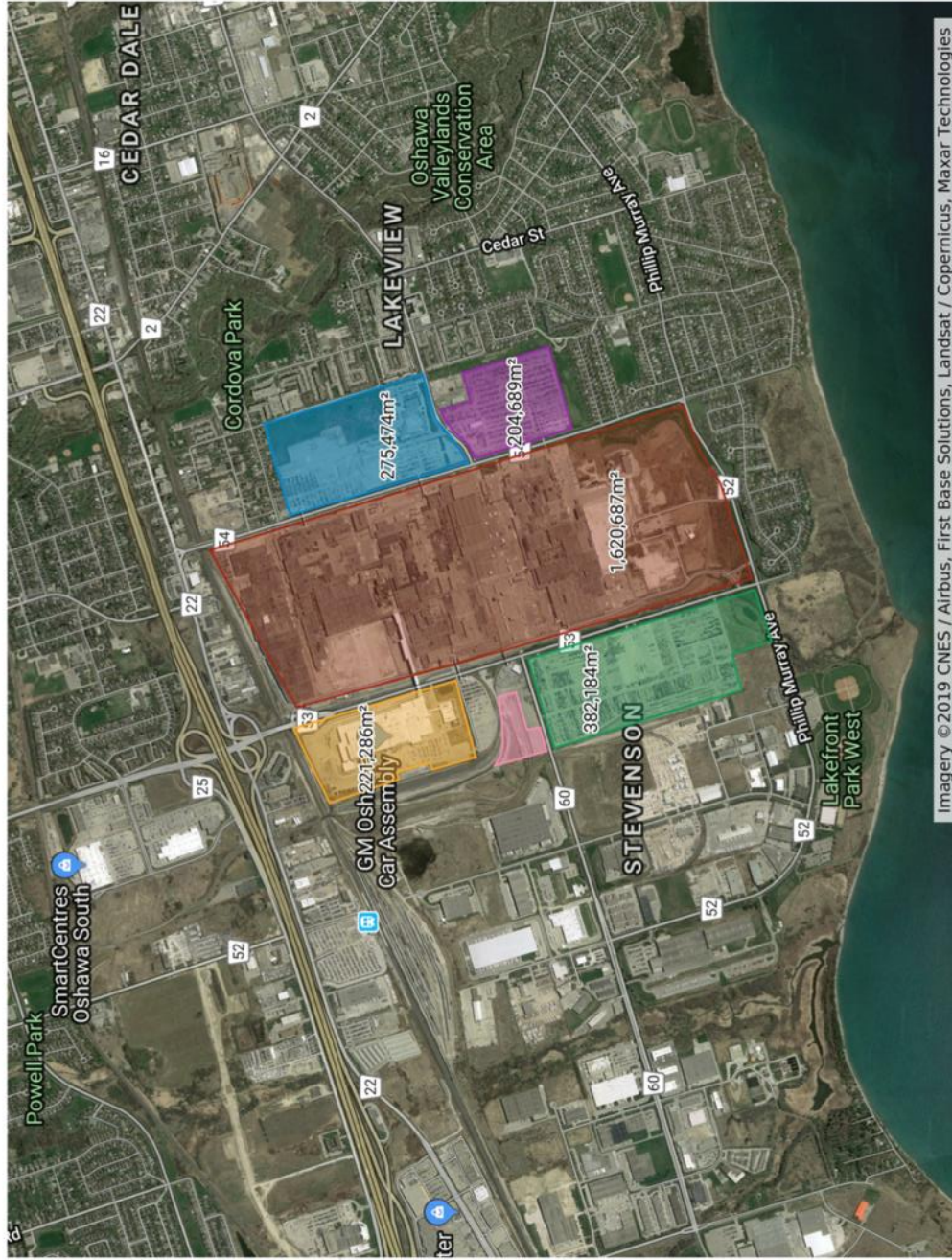


Figure 5

“Assembly line worker Dave Dubyk, 21, tears up a placard on the picket line at General Motors car assembly plant in Oshawa. Employed at GM for only five months, he's looking forward to going back to work after tentative settlement providing a 5 percent raise was reached yesterday.”

Photo taken by Jim Wilkes in 1984. From the Toronto Star Archives

GM Lands in Oshawa



Measurements of properties

- 1,620,687m²
- 275,474m²
- 204,689m²
- 382,184m²
- 36,989m²
- 221,286m²

All coloured property is owned by "General Motors of Canada Company."

All measurements of property were obtained through GeoWarehouse.ca, which is a real estate appraiser in Toronto.

Accessed Nov 4, 2019.

Figure 6 - This map shows all property parcels being labelled as the "GM Lands" in this MRP. The main parcels being discussed are coloured red, yellow, pink, and green (on the left). The area in blue is home to the GM Canadian Technical Center, which is a research and development facility. An AV testing track will be installed on the bottom of the red parcel.

Imagery ©2019 CNES / Airbus, First Base Solutions, Landsat / Copernicus, Maxar Technologies

GM OSHAWA BACKGROUNDER

Past

In 1876, the McLaughlin Carriage Works created a factory in Oshawa. Started by Robert McLaughlin, this factory quickly became one of the largest producers of carriages in Canada and began the automotive legacy of Oshawa. At the start of the 20th century, Robert's son, Samuel, began to form relations with the early business owners of Buick and Chevrolet, eventually producing for – and co-owning – these companies. This partnership led to an amalgamation of companies known as General Motors in 1918. From that moment on, Samuel McLaughlin took on a leading role in GM. Oshawa soon became the headquarters of General Motors Canada, where it remains today.

The Oshawa Assembly Plant began operations on November 7, 1953. The plant has been highly successful and now covers a large amount of real estate in southern Oshawa (see Figure 6). At its peak, more than 27,000 employees were working on the assembly line and countless in-direct jobs in the region. The plant saw millions of dollars invested into it over the years (see Figure 7), resulting, along with the hard work of its staff, in its recognition as the *most* complex GM facility in North America with over 11,000 parts (General Motor, n.d.). By 2018, the year it closed, the Oshawa plant had won 29 J.D. Power awards, making it among the most decorated manufacturing facilities for GM worldwide (General Motor, n.d.). These successes were felt outside the plant as well. In 2004, Oshawa was not only one of the wealthiest cities in Canada but had the most equal distribution in wealth in Canada. The city was a social-democrat's dream, but alas the days of unions and equal wages would not last.



Figure 7 - "Making plans: GM chairman says **\$75 million** is being invested in its Oshawa centre, shown above, to produce two new products. Smith denies threatening to close the Quebec plant, but is mum about any future investment there." Photo taken by Keith Beaty in 1985. From the Toronto Star Archives

Present

Due to growing global competition, corporate restructuring, and rising Canadian wages, GM began to reduce its reliance on the Oshawa plant in the 21st century. Staggered layoffs and reduction in hours occurred at the plant, but the economic impact was felt (and continues to be felt) in-directly through other industrial employers in the region that once supplied the plant with resources. This change happened slowly throughout the 2000s, starting first with a reduction in hours in 2004, to removing entire shifts in 2005, to shutting down an entire truck assembly line in 2009, which resulted in 2,600 layoffs (Oshawa This Week, 2008; Szekely, 2019). In 2008, regular employment insurance claims rose by 96% in Oshawa from the previous year, marking the largest increase of any city in Canada (CBC, 2008). The fate of Oshawa as a wealthy, equitable city was beginning to change.

In 2009, things appeared to get even worse when GM filed for bankruptcy. Thankfully, the plant avoided closure after the Canadian and American governments provided financial assistance to GM to continue operations. To receive this funding from the Canadian government, GM was required to produce 16 percent of its North American cars in Canada, which resulted in the Chevrolet Camaro being built in Oshawa. In the end, however, the Camaro came and went, eventually seeing its Oshawa production halted in 2015, and by 2018, when the plant's closure was announced, GM Oshawa was only producing the Chevrolet Impala sedan, along with Chevrolet Silverados and GMC Sierras, two light-weight trucks. By 2019, the number of employees was just 1/10th of what the assembly plant once offered, a shift that was felt across the city as auto-manufacturing began to deflate in importance economically, as well as culturally. Look no further than the town's motto or its "Welcome to Oshawa" sign as proof that change is in the air. When my parents were younger, the town's motto was "The City that Motivates Canada" – a cute play on the word "moto." When I was younger, the city's motto and welcome sign told me that Oshawa was "The City in Motion" and I knew exactly what that meant, even as a child. Now, following a change in the late 2000s, my nieces and nephews will only know their city as a place where you are "Prepared to Be Amazed." This swapping of words marked the first time Oshawa's motto and welcome sign did not reflect the auto industry (Siemiatycki, 2013).¹

Economy

For most of the 20th Century, the economy of Oshawa did not change much. Indeed, for most of the previous *century*, Oshawa was a place where generations of residents would have worked in the same factories, eaten at the same restaurants, and lived in the same neighbourhoods (Siemiatycki,

¹ "Prepare to be amazed. That's the slogan of the city where I was raised. And I'll come running back each time." Lyrics from Cuff the Duke's 2007 "Rossland Square that mention's Oshawa's most recent motto. <https://www.youtube.com/watch?v=tqQrueNb-9E>

2013). However, the 21st century was different. Similar to the stories of Cincinnati, Pittsburgh, and nearby Hamilton, heavy manufacturing in the past 30 years has slowly been replaced in Oshawa by jobs in education, sales and service, and healthcare. In 1996, manufacturing accounted for 14.5% of all jobs in Oshawa, but by 2016 that number had reduced by more than half, dropping to only 6% of jobs (StatsCanada, 1996; StatsCanada, 2016). In comparison, for the same period, education, law and government services doubled in importance, rising to 11% of total employment in 2016 from 5.5% in 1996; health occupations followed a similar trend, with jobs in this industry growing by 75% (see Figure 8) (StatsCanada, 1996; StatsCanada, 2016).

With two expanding universities, a regional hospital and healthcare network, and a major shopping centre, Oshawa is a staple example of a post-industrial city working to remake and revitalize itself. While automotive assembly was the industry the City began with, sales and service are now the main providers of jobs, with business, education, and healthcare all being important today (see Figures 8 and 9) (City of Oshawa, 2013). Other blue-collar jobs still exist in the city, with “trades, transport, and equipment operators” remaining a major employer in Oshawa.

It should be noted, however, that the future of Oshawa will not be without GM. The introduction of the University of Ontario Institute of Technology (UOIT), now known as Ontario Tech, has ushered in a focus for STEM jobs in the city that pair well with automotive research, design, and production. The university has had a focus on high-tech research and development from its infancy, especially through strategic partnerships with companies. Specifically, the university’s Automotive Centre of Excellence (ACE), a renowned automotive testing and research facility, already has a partnership with GM’s research and development unit, the Canadian Technical Centre, which is housed (and will remain so) on the eastern portion of the GM Lands. ACE is best known for its climatic wind tunnel, which can test new vehicles in a variety of temperatures and pressures, such as in arctic chills and wind speeds up to 280 km/hr (Ontario Tech, 2019). It is among the only

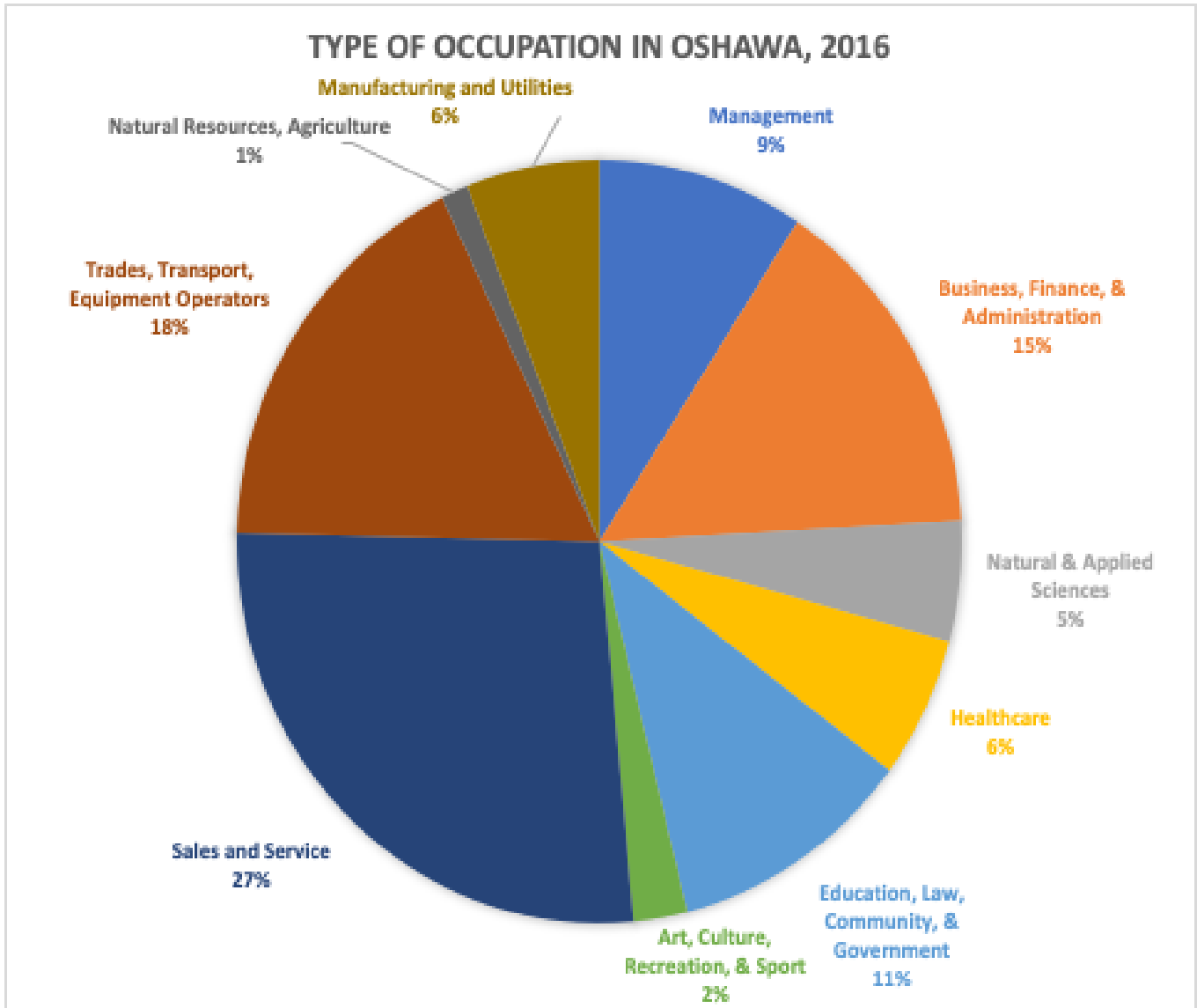


Figure 8 – Percentage of total jobs by occupation for the City of Oshawa shown here for the StatsCan 2016 Census.

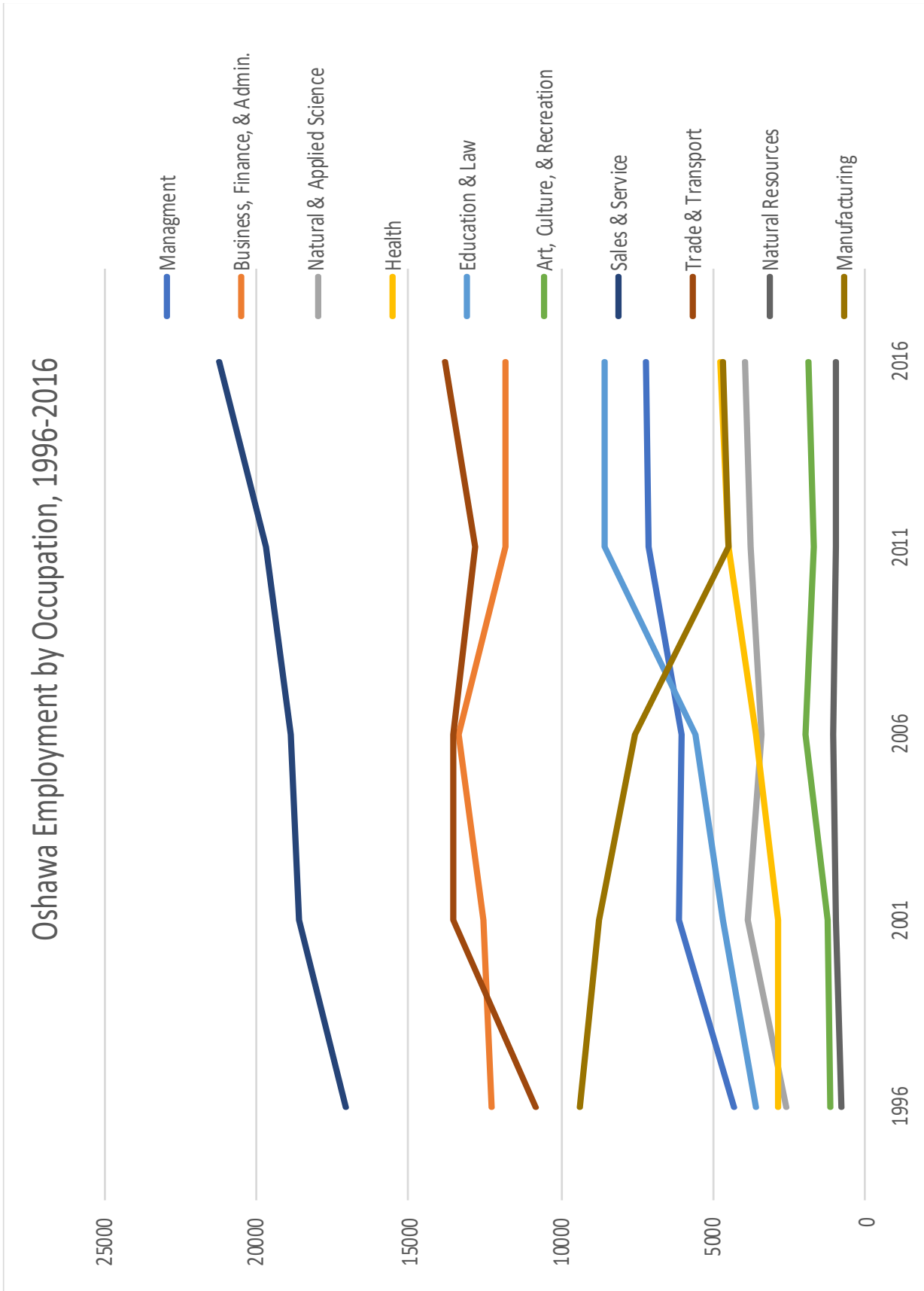


Figure 9 – Oshawa change in employment (by occupation) between 1996 to 2016 is shown here. Data is from StatsCanada 1996, 2001, 2006, 2011, and 2016 censuses.

climatic wind-tunnels of its kind in the country (Ontario Tech, 2019), once again distinguishing Oshawa as an automotive staple for Canada. ACE is also testing and developing autonomous vehicle technologies, through a provincial research group called the Autonomous Vehicle Innovation Network, which has its Eastern Ontario headquarters in Oshawa. A major new connection will soon be made between ACE and GM in Oshawa through a new AV testing track being installed on the southern portion of the GM Lands (see Figure 10) (Reid, 2019). The testing track, which was a nugget of good news among the announcement of the closure of the GM plant in Oshawa, will allow ACE to expand its autonomous vehicle research while GM tests its new models in ACE's climatic, wind-tunnel (Ontario Tech, 2019). This public-private partnership could ensure continued demand for new STEM jobs in the community and show that, even as auto-production withers away, the auto sector, and specifically GM, will continue to be part of Oshawa's economic future.

Population + Employment Growth

There are 68,270 jobs in Oshawa as of 2013, a number that is expected to rise to 84,660 in 2021 and 90,790 in 2031 (City of Oshawa, 2013). This is a 33 percent growth in employment. Based on these projections, more housing, commercial, and/or industrial space will be required for these increases,



Figure 10 – A screenshot from GM Canada's website displays the future AV Testing Track at its former plant in Oshawa. This 55-acre track will be located on the south of the site and will allow research and development to continue in Oshawa.

especially in employment (City of Oshawa, 2013). Oshawa's population in 2018 was 172,434 and is forecasted to be 174,695 in 2021 and 197,000 in 2031 (City of Oshawa, 2013). That is a 19 percent increase from 2016 to 2031. In comparison to the Durham Region as a whole, Oshawa and its neighbour, the Municipality of Clarington, are expected to be responsible for 30 percent of all job and population growth in the Growth Plan forecast over the 2011-2031 period (City of Oshawa, 2013).

The type of employment in Oshawa is diversifying as it expands, which is a healthy sign for the future of the region. However, even as job growth occurs, Oshawa, as well as the Durham Region, remains a commuter municipality to Toronto. According to Statistics Canada data, there are only approximately 67 jobs available in the Durham Region for every 100 employed residents, the lowest such ratio among major municipalities in the GTHA (2016). Oshawa fares better at retaining commuters, as it has the strongest balance between jobs and working residents in the Durham Region with 88 jobs in the City for every 100 employed residents. However, this discrepancy between available jobs and workers displays the need for more places of employment in the City to match employable skills (Arup & Altus Group, 2016). This mismatch of employment can be seen in the industry grouping of Finance, Insurance and Real Estate (FIRE). In 2011, there were 23,830 Durham Region residents employed in FIRE, but only 7,735 jobs available in the region (Arup & Altus Group, 2016). Having a space in Oshawa to office more of these industries, a space close to transit and new housing, could help reduce this mismatch. However, it is understood that many FIRE jobs are in Toronto and that simply creating commercial land uses does not directly result in these jobs moving to Oshawa.

Real Estate

In comparison with other cities that have experienced the loss of major factories, such as Thunder Bay, Windsor, or Cornwall (Carrick, 2014), Oshawa is still experiencing a boom with housing prices.

For 2019, the average home price in Oshawa was \$509,446. While it has the lowest average price in Durham Region, which averaged at \$609,628 in 2019, it is still among the highest-priced housing market in Canada. Of 16 major cities across Canada reviewed in a study by RE/MAX, Oshawa ranked 8th most expensive, topping other major cities such as Ottawa, Calgary, Edmonton, and Halifax (2019). RE/MAX notes that Oshawa's real estate is currently accurately valued, which provides some stability for pricing going forward, unlike other cities such as Vancouver and Victoria where the long-term profits of developments can be riskier (RE/MAX, 2019). With an accurately priced market that is above the Canadian average, residential development in Oshawa could be a safe decision for major landowners, such as GM Canada.



Figure 11 – The City of Oshawa, which sits east of Toronto and north of Lake Ontario, is roughly bordered by the red circle. Highlighted in orange is the GM Lands. Even from such a zoomed-out view, the size of GM is noticeable.

In terms of industrial spaces, as of 2015, the city had 2,738 acres of land zoned industrial, with 1,018 acres of that being vacant. According to the City of Oshawa economic development office in a 2015 article, a city should have a supply of industrial land to support the city for 18 years. At Oshawa's rate, with less than 12 acres of land being developed each year, they are on track for 86 years of supply (Wittnebel, 2015). However, the numbers account for land that is not serviced by

municipal utilities and road networks, or pre-zoned for industrial uses, which makes up more than 800 acres of that vacant land. In addition, many of the vacant lands that *are* serviceable and pre-zoned are less than two acres in size, which prohibits major industries from easily entering (Wittnebel, 2015). It for these reasons – size, zoning, and servicing – that of all the 13 industrial areas in the city, the “Stevenson Industrial Area,” which houses the GM Lands, had the lowest vacancy rate at 13 percent in 2015. Knowing this going forward, the GM Lands are amongst the most desired industrial lands in Oshawa, but it unknown how GM will plan to develop or market the lands (for example, if they choose to sever the lots into smaller sizes and whether they will need more servicing internally).

POLICY REVIEW - OSHAWA & DURHAM REGION

Growth Plan

The Growth Plan for Greater Golden Horseshoe is a provincial policy that directs growth to urban centres in southern Ontario. The majority of the City of Oshawa falls under an urban centre, including the GM Lands (Province of Ontario, 2019). The Growth Plan calls for intensifying development in urban growth areas, linking development with major transit station areas, reducing the development of greenfields, and the remediating brownfields. The redevelopment of the GM Lands aligns with the policies of the Growth Plan since the site is close to transit, likely to be a brownfield, and is within the urban growth area for the City of Oshawa. Interestingly, the bulk of new residential and commercial development in Oshawa has been on the rural, northern edges of the city in greenfields, which does not align with the higher-level goals of intensification of the Growth Plan and stretches out the need for the city’s services and infrastructure. However, while the Growth Plan calls a minimum density target of 50 residents and jobs per hectare for Durham Region, it also notes that only 50% all residential development must occur in the “delineated built-

up boundary” that encompasses the existing roadways and developed area of the region (Province of Ontario, 2019). This means only half of new housing needs to occur within the existing developed area, which will allow more northern expansion to occur for the time being. Yet, the Growth Plan also notes Durham Region is expected to continue to see a surge of growth, which will expand the need for housing all across the region. According to the Province, the population of Durham Region is expected to increase by 22.6% (220,00 people) between 2031 and 2041 with employment following with a 19.4% increase in employment (70,000 jobs). Plus, as mentioned earlier, the majority of these increases are expected to be in Oshawa and Clarington. These numbers mean that even if half of those new residents live outside the delineated built-up boundary, this still results in new housing required for about 110,000 people. The GM Lands could provide space for this growth through new housing and workplaces.

Provincial Policy Statement (PPS)

The Provincial Policy Statement (PPS) is a province-wide statement that guides land-use planning policies for municipalities. The 2020 PPS encourages brownfield development in both urban and rural areas and highlights the need to link brownfield redevelopment to long-term economic prosperity (Province of Ontario, 2020). For achieving goals of residential intensification and transit-supportive development in urban cores, the PPS directs municipalities to look at their brownfield sites for new projects and to convert or expand existing industrial sites to residential uses.

Official Plan

Oshawa’s Official Plan provides an overarching set of policies and land use designations that guide the physical development and redevelopment of the City. The Official Plan provides guidelines for secondary plans, plans of subdivision, zoning by-laws, and site plans. The Official Plan calls for around half of all new residential units annually to occur within the City’s built-up area, which

follows percentages set by the Regional Municipality of Durham, the upper-tier municipality. The Official Plan suggests moving away from greenfield development to focus more on the intensification of the urban core. However, brownfield development is not mentioned as a mechanism to achieve this intensification.

The Official Plan classifies the GM Lands as industrial, with the area being part of a 1,073-acre “Stevenson Industrial Area” (City of Oshawa, n.d.). The Official Plan notes the city wishes to retain and expand its industrial base, with industrial areas being used solely for “manufacturing, warehousing and storage, assembly, processing including reclaiming and recycling, research and development facilities, corporate offices, utility functions and transportation terminals” (City of Oshawa). While exceptions exist for commercial, recreational, and institutional uses, the Official Plan notes that residential uses, including nursing and retirement homes, elementary and secondary schools, shall not be permitted in areas designated as industrial. For any changes to the use of the land, an Official Plan Amendment would have to occur alongside a Zoning By-Law Amendment. Industrial sites within the City’s Major Urban Area (which includes the GM Lands) are expected to contribute to achieving the employment forecasts in the Official Plan, with new developments in industrial zones being linked to at least 50 percent of all forecasted employment. Thus, redeveloping the GM Lands will require a good portion of the land to remain for industrial uses, which can include a vast array of employment, such as warehousing, processing, and assembly plants (City of Oshawa).

Brownfield Community Improvement Plan

The City has financial incentives for the development of brownfields. The Brownfield Community Improvement Plan offers three financial incentives: grants for remediation studies, property tax cancellation for brownfield redevelopment projects, and a tax incremental equivalent grant (City of

Oshawa, 2013). All of these incentives highlight the policy goal of the City to have brownfields in their boundaries redeveloped, which works well for the redevelopment of the GM Lands.

Municipal Act

Interestingly, in the Region of Durham, as noted in the Municipal Act under Section 11(11), the City of Oshawa (along with all lower-tier municipalities in Durham) cannot acquire, development or dispose of sites for industrial, commercial and institutional uses. This clause would prohibit the City from acquiring any GM Lands, requiring the Region of Durham or the Province of Ontario to acquire the land should a public redevelopment be desired. The City of Oshawa has an economic development department that instead of purchasing land, works with private developers to try to find new occupants for lands zoned for industrial, commercial, and institutional (Wittnebel, 2015). When marketing Oshawa to potential bidders, a senior staff member at the City of Oshawa noted that they look for advanced manufacturing, health and bioscience, energy, multimodal logistics and transportation, and IT (Wittnebel, 2015).

OSHAWA AND BROWNFIELDS

The City of Oshawa is no stranger to brownfield development. In the early 1990s, after many manufacturing companies, including GM, began leaving the downtown core, the City sprang into action to fill in the post-industrial gaps left behind. It started with building a parking garage on a brownfield site, a modest development that required lower environmental standards than a residential or commercial building (CREA, n.d.). The parking lot was followed by developing a downtown retirement home in 1999 and then a YMCA in 2000 – which received a major donation from GM at the time (Greater Toronto YMCA, n.d.). These sites were part of an incremental approach to rebuilding the downtown core, adding much needed institutional and residential uses.

In 2006, the “GM Centre,” a new 5,180 seat arena for Oshawa’s OHL team, the Oshawa Generals, was opened downtown on a brownfield site, just steps from the YMCA and retirement home. As noted by the CREA, the “brownfield site [was chosen] over a number of greenfield possibilities, thanks in part to extensive environmental investigations of the site giving them confidence and also to the support and incentives offered by the City.” In 2007, the Canadian Urban Institute (CUI) recognized the GM Centre – now called the Tribute Communities Centre - with the 2007 ‘Brownie’ Award for Best Project Overall for that year. This isn’t the only time the CUI has praised Oshawa, with their VP saying that “the City of Oshawa actually took a very innovative approach [to brownfield development ...]. They saw the chessboard grid of the downtown and they started buying. Over a seven- or eight-year period they remediated, sold and purchased additional sites so that they could be on centre ice” (Carr, 2012). (As noted in the previous section, the City of Oshawa cannot purchase commercial, industrial, or institutional properties on its own, so it assumed here that either Durham Region or the Province of Ontario purchased these properties on behalf of the City of Oshawa). More recently, downtown Oshawa saw the addition of the Durham Region Courthouse. This 33-courtroom, LEED-certified glass building sits on a six-acre brownfield site acquired by the Province from General Motors and remediated partially at the city's expense (Carr, 2012). The building, which also won itself a “Brownie Award,” brings about 1,600 people downtown every weekday, who can now park at the city’s brownfield parking lot, work at the brownfield YMCA, and then catch a concert or hockey game at the brownfield arena.

In addition to the city-managed brownfield redevelopments, there has also been a large brownfield redevelopment happening on the edge of downtown Oshawa on one of GM Canada’s first auto assembly sites. Having shut down this plant in 2004, the 40 acres of land were sold to private investors who remediated the site and then sold portions of it to Costco Canada and Canada Post (Miyachi, 2015). The Costco location is now one of its busiest locations in North America,

according to planners at the City, and sits next to plenty of new restaurants and retail stores, including restaurants, banks, and a grocery store. The Canada Post facility is now operating, and more development appears to be planned to surround it.



Figure 12 - A new retail plaza in Oshawa featuring Costco can be seen here. Located on Ritson Road, the plaza was built upon a site formally housing a downtown Oshawa GM Plant. The site is still being developed on the eastern side of Ritson Road. Accessed via Google Earth in March 2020.



Figure 13 - The Durham Region Courthouse can be seen here under construction in the late 2000s. Oshawa's downtown YMCA can be seen in the back of the photo. Photo courtesy of Infrastructure Ontario.

CASE STUDIES

Methodology

To better understand the potential of the GM Lands in Oshawa, I decided to look into previously closed industrial plants – mainly former GM sites – across North America. From Quebec to St. Louis, it is clear that other regions have all shared what resembles a death in their communities when GM left. By studying how these regions rebounded from the economic loss, guidance can be provided for key stakeholders in Oshawa, as well as other regions dealing with a large post-industrial space. A case study approach does not provide primary evidence about what GM Canada currently wishes to do with their site, but it does show what GM has previously done to its sites and what happened to these sites after the initial press releases and news articles.

The first grouping of case studies was found on an archived GM website, where they were being marketed as proud examples of sustainable brownfield development. They were removed from this website around 2009, so my research follows up with four of these examples to see whether the redevelopment went as planned and what can be learned from the process. The second grouping of case studies was found through a literature review on post-industrial spaces in North America and were not featured on GM's archived website. These case studies (there are two) are included to act as inspiration for stakeholders in Oshawa and are more in-depth with detail and analysis than the four preceding case studies. The first of these two studies is a GM site in Quebec that was redeveloped into a mixed-use community. The second of the two is not a GM site, or even an automotive assembly plant, but instead a former steel factory. While it appears to be an outlier, this example has strong lessons for the GM Lands in Oshawa due to the unique steps taken by the landowners and the surrounding levels of government to use arts and culture, as well as service and hospitality, to revive the area.

While every case listed below is different, there are some common themes around the types of development that occurs (mixed-use, big-box retail, light industrial), the issues that arise (delays in redevelopment, loss of high-paying jobs), and the lessons to be learnt (incremental growth vs rational-comprehensive planning, the benefits of private-public partnerships). By providing a wide range of case studies, this report seeks to display the many paths forward for Oshawa.

GM and Brownfields

Before the global economic collapse in 2008 that saw General Motors file for bankruptcy, there were publicly accessible plans for redeveloping decommissioned GM assembly plants. However, while it appears these files were removed from GM's website post-bankruptcy, they are still accessible on other websites thanks to the capturing of former website pages. These webpages, while dated, can help explain what GM Canada may do with its assumed brownfield site in Oshawa (see Figure 14).

General Motors 3-Step Approach for Redevelopment, 2009	
1	Formulate a strategy. Once we have made the very difficult decision to close a facility, we quickly begin to formulate a strategy to redevelop the property. However, we don't come up with this strategy alone. We solicit input from local government agencies, real estate developers and public officials
2	Decommission the building. In order to begin redevelopment, GM must first move out, an effort referred to as decommissioning. Due to the size and complexity of many of our operations, this process may take a long time to accomplish. It involves more than just packing boxes. We explore sale, donation and recycling options for surplus equipment, instead of simply trucking it to the landfill.
3	Assess the site environmentally. As part of the redevelopment process, GM assesses the property and appropriately addresses environmental issues identified. This is a key step in the redevelopment strategy.

Figure 14 – This 3-Step brownfield redevelopment chart is taken from a screen capture of General Motors' "Environment Commitment" website. It was captured in 2009.

The former GM brownfield website also includes a list of 11 “Redevelopment Case Studies.” These former GM facilities were faced with ambitious plans for residential-commercial mixed-use developments, along with industrial and recreational uses. Sadly, many of them remained ideas for long after they were announced. However, in 2011 most of GM’s surplus land was taken over by the Revitalizing Auto Communities Environmental Response Trust (RACER), which is an independent trust created out of the bankruptcy settlement agreement for GM (RACER, 2020). RACER’s sole mission is to “clean up and position former GM locations for redevelopment and beneficial reuse” (RACER, 2020). It appears that many of these former brownfield sites are now beginning to be developed, thanks to the single focused mandate of the RACER program. Below are the stories and current conditions of *four* of these brownfield projects.

Edges on Hudson

In 1996, the “North Tarrytown” GM Plant in the Village of Sleepy Hollow, New York shut down. As a small commuter community (about 10,000 residents) situated 40 kilometres north of Manhattan, many residents in Sleepy Hollow saw this as positive rather than negative news. A New York Times article at the time read: “Auto Plant Closes and Developers See Opportunity; North Tarrytown Focuses on its Future Instead of the Past” (Lueck, 1996). As a commuter town with public transit access (through a local train station) to one of the highest-priced real estate markets in the world (New York City), it makes sense why many in the community saw this as an opportunity.

To prepare itself for the future, the town enacted a by-law in 1993 – three years before the formal shutdown of GM – that required demolition and environmental cleanup of large industrial sites that were either being sold or terminating operations (Brugeman et al., 2011). While GM fought this bylaw in court, the town won the case and GM eventually demolished the site (Brugeman et al., 2011). The plans for a mixed-use development began in 1996 with an announcement from GM that they would continue ownership of the land, but nothing occurred for the next five years. Due to this

inaction, the town tried to exercise its option to purchase the property from GM in 2002 and take over the development. However, GM filed a legal action to protect its interest in the property (claiming that the \$12 million offered by the village was undervaluing the site) and negotiations to settle the matter continued for nearly a year, while plans were put on hold (Brugeman et al., 2011). Finally, later in 2002, GM posted on its website that a deal had been made with a developer and construction would again begin shortly. However, again, no action occurred due to the global recession in the late 2000s that halted most of GM's land redevelopment. Due to further inaction, the village once again took preemptive steps in 2011 by passing a "special permit" that outlined any future redevelopment deals with future developers of the site. Some of these requirements were: 1,177 residential units, more than 100,000 sq.ft of retail space, more than 30,00 sq.ft of office space, a hotel, and more than 45 acres of public space (Brugeman et al., 2011).

In 2014, the site finally sold for \$39.5 million to its current owners, SunCal and Diversified Realty Advisors, two private developers that specialize in large-scale, mixed-use, master-planned communities (Odenthal, 2019). As of 2020, the site is finally being developed with construction in progress. Now dubbed the "Edge on Hudson," this new community is going to be worth an estimated \$1 billion upon completion as a luxurious, transit-orientated, mixed-use community for commuters to Manhattan, featuring townhomes, condos, and purpose-built rental apartments, all with restaurants and retail at grade (see Figure 15 for the site plan; Figure 16 for a residential rendering) (Deffenbaugh, 2018). There will also include a boutique hotel, 100,000 sq. ft. of retail space and an office complex, and more than 16 acres of parkland. Interestingly, all of the village's requirements passed in 2011 for unit counts and square footage size have either been met or have been exceeded (Deffenbaugh, 2018).

With the City of Oshawa being in relatively a similar location as "Edge on Hudson," this example shows there is an appetite for dense, commuter living if the living amenities and transit-

options are strong enough to lure people from a more urban setting. This example also shows that innovative mixed-use development can occur on former GM lands, but the process may be lengthy, bumpy, and require government intervention and selling of the property from GM.



Figure 15 – The site plan for the Edge on Hudson development shows the creation of a new neighbourhood using a mixture of townhomes and condos, new streets, and plenty of urban forestry. Taken from the website of one of the developers, Toll Brothers. Accessed in March 2020.



Figure 16 – A rendering of condos to be built at Edge on Hudson by Toll Brothers. These low-rise units will be amongst a huge redevelopment of a transit-oriented development on top of a former GM Plant. Accessed in March 2020.

Union Seventy Center

From the 1920s to the 1980s, GM operated an automotive assembly plant in St. Louis, Missouri, making trucks, mid-sized cars, and Corvettes. The plant was second only to Anheuser-Busch as the top employer of assembly-line workers in St. Louis, with 5,000 employees at its peak. As the plant changed and corporate restructuring occurred, GM decided to shut down operations in the early 1980s, leaving then 2,600 people without work, and a 43-acre site, as well as 118 acres of surrounding land, vacant (McGuire, 1989; Clayco, 2020). GM initially debated demolishing the existing facility, but the cost – at \$17 million at the time - was apparently too high. Rather than hold onto the site, GM sold the land to a Clark Properties for \$500,000, which had previously redone several major industrial properties in St. Louis, (McGuire, 1998). Prior to the sale, GM conducted an environmental assignment and removed machinery, hydraulic units, asbestos, PCBs, underground storage tanks, and other materials. The cleanup was monitored by the Missouri Department of Natural Resources, which provided final environmental certification (ULI, 1996).

Clark Properties decided to reconstruct the assembly facility into a series of smaller industrial spaces (ULI, 1996). After demolishing some of the existing facilities, the area was reconfigured with adjoining 118 acres of land, creating a modern industrial park lined with new roads, entrances, and landscaping, including three ponds and many street trees (see Figure 17) (Clayco, 2020). Some of the existing factories were remodelled into new rentals, rather than destroyed, while other space was made for lots to be sold for new “built-to-suit” facilities, allowing some flexibility in seeking new tenants (ULI, 1996). To assist with the construction, Clark Properties received a reduction of property taxes equal to 100 percent of the value of improvements for the first 10 years, and then 50 percent of that same value of improvements for the next 15 years (ULI, 1996).

Finished in 1989, the Union Seventy Center, a 161-acre industrial warehouse and distribution campus, began to house numerous offices, warehouses and distribution facilities. By 1996, the site

was continuing to be well occupied, with several larger American companies moving into the area, being attracted by rents that were cheaper than suburban spaces on the fringes of St. Louis, while still being close to downtown (ULI, 1996). However, in 1996, the buildable land area was still only 60% developed, showing a slower, more incremental approach was being taken by Clark Properties (ULI, 1996). Twenty years later, the site is now mostly built-up and includes some big-name tenants, such as Pepsi-Cola, Smurfit-Stone, OKI-Bering, MFR Tire, United Rentals, and Save-A-Lot. With total investments in the facilities exceeding \$110 million since its creation, the area has a bright future for containing jobs, attracting further investment, and providing life to an area of the city that could have been vacant (Clayco, 2020).

The Union Seventy Center shows that while manufacturing jobs may dissipate as global and national economies shift there are still uses for industrial spaces, such as trucking logistics and food and drink wholesale storage. Keeping industrial spaces open and accessible is important for a city like Oshawa, which as mentioned earlier, relies on both “Trades, Transport, and Equipment Operators” and “Manufacturing and Utilities” for a quarter of the City’s jobs (City of Oshawa).



Figure 17 – (Top to Bottom) The Union Seventy Center is seen from above on Google Earth in 2020; a shipping facility for beer is seen at Union Seventy Center and; a new facility for rent at the Center can be seen.

Van Nuys – “The Plant”

Figure 18 – The entrance to “The Plant” Shopping Center in Van Nuys, California is shown here. The Plant is an example of using large box-stores to redevelop on brownfields, something the City of Oshawa recently did with Costco. Screenshot accessed in March 2020.

Opened in 1947, the Van Nuys Assembly Plant in Panorama City, California assembled Chevrolets for 45 years. As the last assembly plant in Southern California, its closure in 1992 impacted the community. A Los Angeles Times article at the time claimed the plant to have “once symbolized the region’s manufacturing might” and that its closure would cause “substantial financial loss to the whole community,” (Apodaca, 1992). Unlike the prior examples, GM worked swiftly with developers and the city to recreate the site. According to news reports at the time, the City, in return, assigned a specific case manager to work on the project to ensure the work was “not bogged down in City Hall red tape (Martin, 1996). The City also provided an unknown amount of tax breaks and assigned the area to be a “revitalization zone” that gives further tax breaks to businesses that employ local residents. The 68-acre, \$100 million project resulted in the retail and industrial complex now known as “The Plant,” which is home to a 16-screen movie theatre with an automotive theme décor

(see Figure 17), a fire department station, light industrial uses on the periphery, and around 30 box stores, including staples such as Home Depot, Starbucks, and Party City (Decron Properties, 2020). Interestingly, GM continues to operate a car-testing and emissions facility on the 27-acres next to redevelopment (Martin, 1996).

However, as can be assumed, many of these new retail centres do not offer the same type of employment as found before. As noted by professor and author Laura Barraclough, “When GM left, so too did many of the San Fernando valley's remaining high-quality manufacturing and assembly jobs... the history of the Plant, and countless shopping centers like it, ties directly in the rise of homelessness in ways that are so ordinary and common as to be persistently ignored” (2015). While news reports prior to GM's closure show the area was already dealing with rising poverty, lack of reinvestment, and some of the highest crime rates in Los Angeles (Newman, 19998), the changes in employment likely did have an impact on the overall economic health of the area. Thus, while a success in some regards, Van Nuys should still act as a reminder for Oshawa that even if you can rebuild on a site, it may be difficult to recreate the economic impact of what was there prior.

Van Buren Township

Van Buren Township is a small community in Michigan that is about 45 kilometres from Detroit and only 15 kilometres from the Detroit Metropolitan Airport, Michigan's largest airport. In 2005, GM sold 444 acres of “surplus land” in this township to a private developer in hopes of seeing the land redeveloped. On its website, GM celebrated the sale, claiming the site would become a mixed-use development consisting of approximately 39 acres of commercial spaces, 70 acres of industrial uses, and 335 acres of attached and detached residential units. “The sale of this surplus GM property is just the latest step in another sustainable redevelopment opportunity for Van Buren Township, and the surrounding communities,” said the executive director of GM Worldwide Real Estate at the time. “Everyone wins with this transaction – the community, GM and the developer.” Further to

this, Ryan Rossett, a partner in the company purchasing the land, responded by saying, “At a time when we all are concerned about the loss of jobs in Michigan, we are pleased to be proposing new housing opportunities, jobs and industrial development to western Wayne County.” As of 2017, according to Google Street View, the land remains vacant and is again for sale as “commercial/ industrial” (see Figure 19 for an aerial image of the site). While real estate in Detroit and the surrounding areas went through a depression in prices following the recession, the site is still well located near major highways that quickly connect it to Ann Arbor and Windsor. In addition, the community itself is around 30,000 people and has two airports nearby. Van Buren should act as a warning that inaction can occur for years, even when located between major cities and after being sold to a private investor or developer.



Figure 19 – The footprint of a potential building in Van Buren Township can be seen in this screenshot from Google Earth. As of 2020, this site remains vacant and for sale.

Faubourg Boisbriand

Upon researching post-industrial spaces in North America, a shockingly similar story to Oshawa came up in Quebec. In 2002, after 37 years in production, a General Motors automobile assembly plant shut down operations in the Ville de Boisbriand, Montréal suburb. Media reports at the time claimed the shutdown of Boisbriand GM (formerly known as Saint-Thérèse GM) to be a disaster for

the community and that the town's culture, economy, and history, which all circled around the plant, would fall apart (Marotte, 2002). Even the Los Angeles Times wrote about the plant in the 1990s, claiming the future of the region revolved around getting another car line (Stavro, 1995).

The LA Times was partially correct. That "another" car line never came. For a while it thought a new Camaro would revive the area, but that production line was coincidentally sent 500 kilometres to the east in Oshawa (Desjardins, 2018). Some workers from Boisbriand were even offered employment in Oshawa, linking these two sites long before the talks of brownfield development occurred (Desjardins, 2018). Where the LA Times was wrong, however, was about the lack of a future for Boisbriand. GM's departure allowed the City a chance to reinvent itself. After the shutdown in 2002, the change from a post-industrial space to a mixed-use community occurred swiftly and efficiently. In 2004, a pre-approval was granted by the local planning authorities for conversion to mixed-use (Desjardins, 2018). Shortly after, the 232 acres of land was sold for \$53 million to Cherokee Investment Partners, a private American investor that partnered with CCI Developments to beat out seven other bidders, showing the high demand for the site (Silcoff, 2005). While the property was contaminated with petroleum hydrocarbons and metals from its days as Pontiac Firebird and Chevrolet Camaro assembly plant and paint shop, its prime location at the intersection of Highway 15 and Highway 640, which is only 20-30 minutes north of downtown Montréal, made the remediation costs worthwhile (Silcoff, 2005).

Looking at the Boisbriand GM site before it was redeveloped, one can see many similarities with Oshawa. Both sites are vast in size yet close to urban cores and major transit routes; both sites were once the economic staples of their communities with many jobs being lost in the shutdowns; and both sites are inside strong real estate markets, unlike other post-industrial spaces in North America. Knowing these similarities, it is important to study the current state of Boisbriand to get a good example of a potential future for Oshawa.

Faubourg Boisbriand

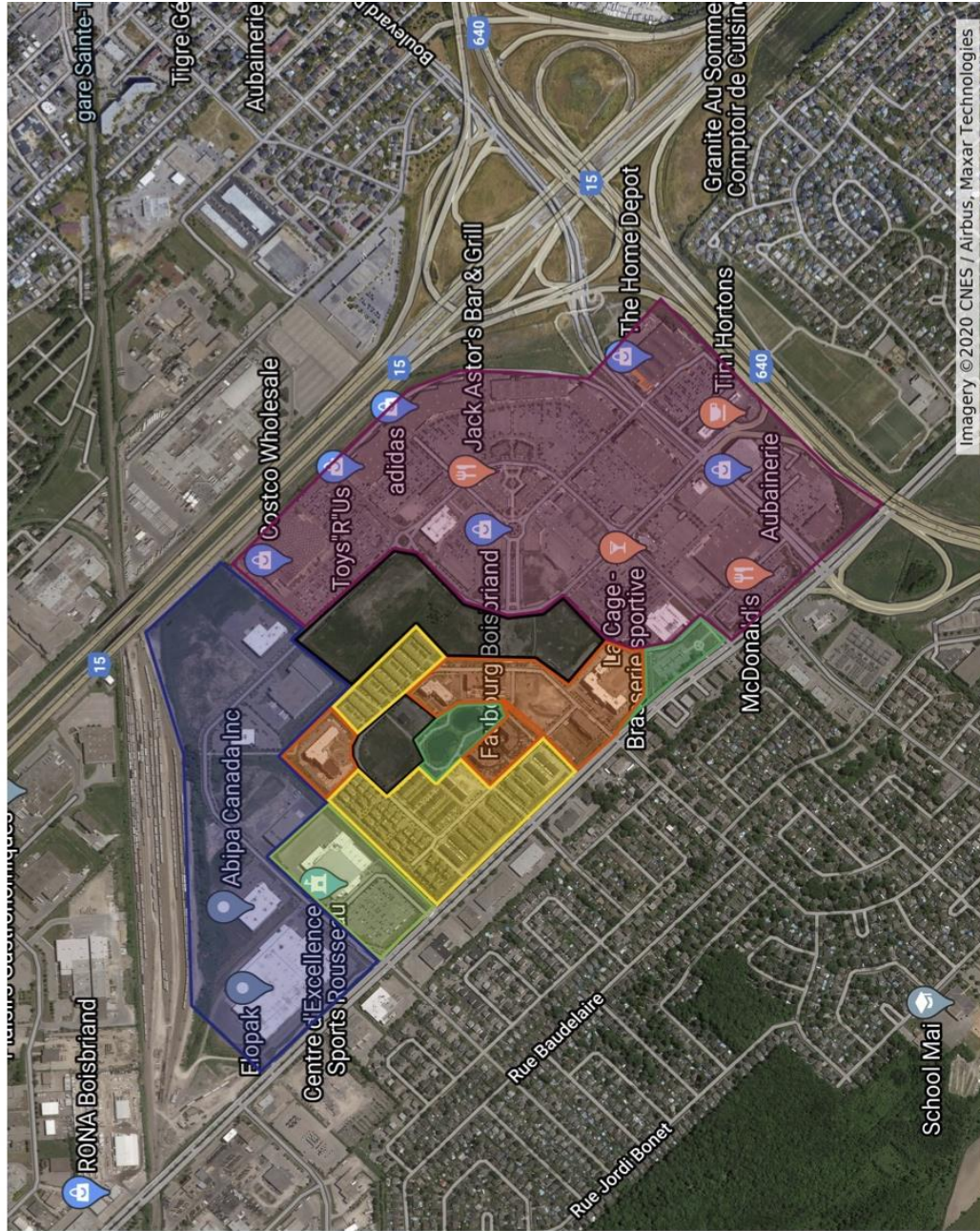


Figure 20 - This map shows the current land uses at Faubourg Boisbriand. The major uses are commercial, which is in pink. Next is light industrial in blue and then residential in yellow and orange (the latter being high-rise and including one retirement home). There are also parkland and a recreational facility. Black is vacant land that is planned to be developed into more residential. Taken from Google Maps in March 2020.



Figure 21 - Rue des Francs-Bourgeois in Boisbriand, Quebec is lined with townhomes and apartments that sit on a former GM site. Accessed from Google Maps in February 2020. Photo was taken in May 2019.

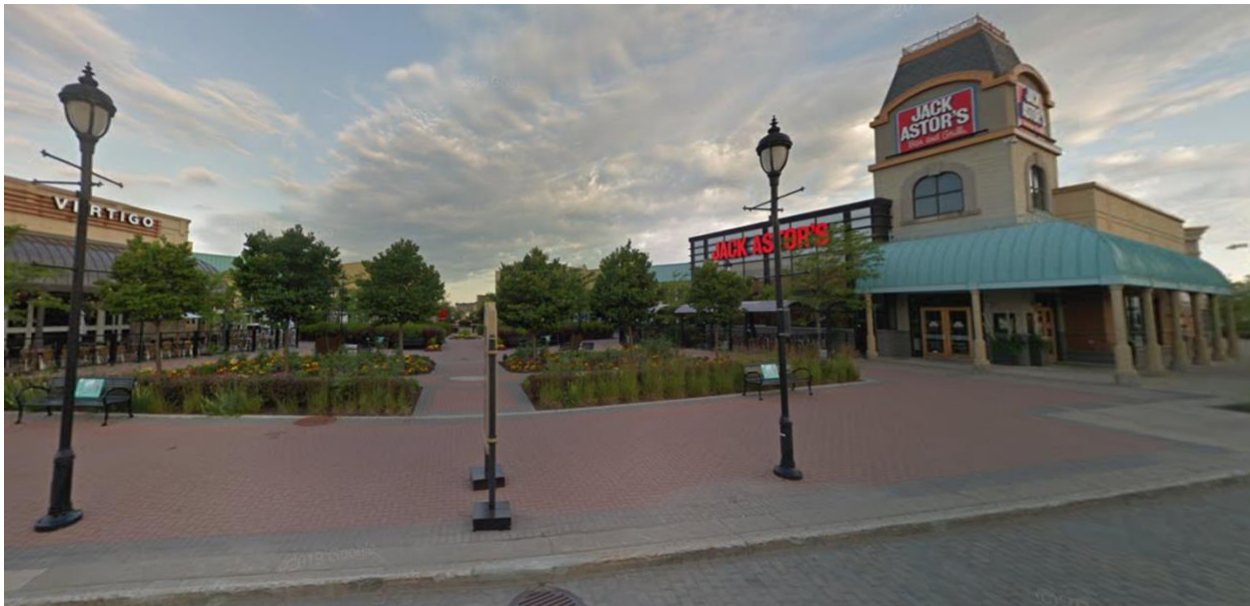


Figure 22 - Major restaurants and retail stores can be found on Avenue des Grandes Tourelles Bourgeois, one of the retail strips in the Faubourg Boisbriand development resting on a former GM site. Accessed from Google Maps in February 2020. Photo was taken in May 2019.

The redevelopment of the Boisbriand GM land saw the creation of a truly mixed-used community, with residential, retail, recreation, and recreated industrial uses all sharing the former space held by one factory (see Figure 20). In total, Faubourg Boisbriand now houses 800 residential units, ranging from dense townhomes to high-rise condos, with another 500-900 condo units still being planned (see Figure 21). In addition, there are 27.5 acres of commercial spaces, including a new industrial park and plenty of retail and restaurants (see Figure 22). Together, these employment hubs have seen the creation of an estimated 1,500 jobs, which does not include the jobs still being used to construct the space (Silcoff, 2005). Some examples of current employers on the site include Costco, Home Depot, Jack Astor's, Elopak (a milk and liquid carton producer), and Abipa (a Quebec aeronautics company) (Desjardins, 2018).

The diversity of uses, as well as various types of employment, is important to note, as it provides economic sustainability in the wake of the destruction caused by a single employer shutting its doors. As shown above in Figure 20, the area transitions from commercial-retail on the edges of the highway to low-rise and high-rise residential in the middle (which includes park space, a retirement home, and a recreational-athletic centre). At the northern edge of the site are light industrial facilities, which allow for higher-paying employment, such as aeronautics, transport management, and engineering to exist side-by-side with sales and service roles, and nursing and recreational work. All of these uses are connected by a new set of roads, bus stops, sidewalks, and recreational pathways, allowing people to enter and exit an area previously closed to the public.

In terms of environmental sustainability, LEED design was also a focus for the community, with existing steel and concrete being re-used in the development, native plant species being brought back into the site after years of non-existence, and a renewed surface water management to control the groundwater runoffs (Desjardins, 2018). Due to its massive size, cultural importance, and

sustainability goals, the site received the 2007 Canadian Urban Institute's Brownie Award for Best Large-Scale Project.

Today, the area is functioning well. In 2018, the site generated taxes worth 16 percent of the municipality's \$64.5 million budget, which roughly the same percentage as GM before it closed. It is continuing to see new investment, with condos currently being sold for pre-construction (Sanleon, 2020). As noted by a former City Councillor, "GM was part of our history, so it was very hard when it closed down. But I think we've made a good change with what was given to us." (Desjardins, 2018).

Bethlehem Steel

In 1995, Bethlehem Steel, a once global titan, shut the doors of its hometown plant in Bethlehem, Pennsylvania, leaving more than 1,500 acres of railroads, offices, and factories vacant in a town with just under 75,000 residents. After years of inaction, 124 acres of the former Bethlehem Steel site, which sits about one-hour north of Philadelphia, was purchased in 2007 by Las Vegas Sands, a developer of resorts and casinos that ended up opening the Sands Casino Resort Bethlehem in 2009 (Byrnes, 2013). Following the major investment of the casino, which acted as an anchor tenant, other opportunities arose, such as restaurants and hotels, and the city then began investing in the area (see Figure 26). While the normal investments of recreational pathways and new roads began in the area, it was the public art and cultural investments that make the area stand out. By working with private and non-profit partners, LED lighting was added below the former steel furnace towers, educational signage was posted and tours started being given, and new retail, restaurants, and commercial spaces were added around the site, including a concert stage in an area that can support large festivals (Marchese, 2013).

Rather than shy away from the past of the site, the city and the owners of the land honour the industrial heritage of the site. By building around the steel furnaces, rather than removing them

or hiding them, the area, which is now called the “SteelStacks,” acts as a post-industrial playground and educational centre (see Figure 23). By including the local history, the City and landowners have created a sense of place for both visitors and locals, setting apart the community from other master-planned areas. This idea of honouring your industrial past rather than hiding it can be seen all across the world as national economies continue to shift in their production. For example, since 1986



Figure 23 - The SteelStacks can be seen here during an evening concert. Live music, art festivals, and educational tours are now regular occurrences on a site that formerly was abandoned. Photo from Jonathan Davies, *Philadelphia Magazine*.

UNESCO has included “industrial legacies,” in its World Heritage List, with these engineering feats of the 19th and 20th centuries ranging from canals, railways, bridges, and manufacturing facilities (Tianfu, 2016). As cities become more urbanized and employment becomes more knowledge-based in North America, tourists will begin to flock around former industrial plants, such as Bethlehem Steel, to explore the economies of the past, similar to how “pioneer villages” exist today (see Figure 25). People will begin to travel far to look, touch, and smell the steelyards and automotive factories that helped build the economies of the United States and Canada.

This combination of using art and tourism at Bethlehem SteelStacks is a revitalization strategy being used all across the world as buildings normally unlivable or undesirable can act as both an inexpensive art gallery as well as an architectural art piece in themselves. As noted by Wang Tianfu in his examination of post-industrial spaces in Taiwan, “The boundary between building and exhibits becomes vague, and architectural components participate in the expression of artworks as the exhibit background, and the artworks also become parts of the building” (2016). Taiwan is a great example of leveraging its industrial past to support tourism and art. All across the country, visitors can explore “creative parks,” such as Taipei’s Huashan 1914 Creative Park, which are former factories and industrial areas that now support small businesses and local artists (see Figure 24) (2016). Another well-known example of post-industrial leveraging can be seen in Toronto with the Evergreen Brickworks complex.

While these cases require comprehensive, long-term planning, in actuality the sites are usually developed incrementally, with the city or regional planning staff being iterative their goals and modest in their expectations (Mallach & Brachman, 2013). This restraint on planning timelines stems from the fact most major industrial sites are privately owned, so governmental agencies can only act as liaisons for development, rather than the leaders. Cities can ensure streets are resurfaced, parks are created, and areas are pre-zoned, but they must be open for the private market to shape its ideas as well (Mallach & Brachman, 2013).

To return to Bethlehem, after the plant closed in 1995 the City worked with the owners to adopt a master plan for redevelopment. Lofty in aspirations, the plans called for a Smithsonian-affiliated museum of industrial history, which has yet to occur (Mallach & Brachman, 2013). However, as noted, the city was able to bring a casino to the site, which has since acted as an unlikely catalyst for further development, as well as a source for much-needed property tax (Byrnes, 2013). When the CEO of Bethlehem Steel was asked if anyone could have saved the company, he



Figure 24 - Huashan 1914 Creative Park in Taipei, Taiwan. Photo by Christopher Legaspi, Creative Commons.

said, “I don’t think Christ could have.” (Byrnes, 2013). And while the company was not saved, this case study proves that the town was saved for the same fate.

Bethlehem shows cities can leverage large-scale redevelopment opportunities, such as a casino in this case, as they arise. Cities should see these incremental investments as steps toward an overarching goal (rejuvenation, sustainability, economic development), rather than trying to find one major development to fulfil that goal instantly. As noted by Mallach and Brachman, “Cities should not look to large-scale projects as the drivers of regeneration, but should foster multiple, incremental activities with broadly based private and nonprofit partnerships ... to create a positive climate in which change can flourish” (2013).



Figure 25 - Recreation, art, and industrial history collide in Bethlehem's SteelStacks, a 10-acre campus that features live music, annual festivals, small business, local art, and five blast furnaces (see above) that were used in the iron making process at Bethlehem



Figure 26 - Wind Creek Bethlehem, formerly Sands Casino Resort Bethlehem, is a casino and hotel that is built upon the former Bethlehem Steel Works. Accessed from Google Maps in February 2020.

ANALYSIS

GM Archived Case Studies

As the following case studies have displayed, there are endless options for life after GM. The four case studies archived from GM's website show brownfield redevelopment is not new to GM. Indeed, by 2011, GM sites accounted for 59% of all repurposed plants by major automakers in the United States (Brugeman et al., 2011). Having followed up with each of these cases more than 10 years after GM removed them from its website, this report provided updates on the state of brownfield redevelopment for GM properties. Based on these four case studies, there are similarities, differences, and lessons learnt to be discussed. Firstly, all of these projects eventually involved GM selling the land to a private developer, which then led to the beginning of construction (except for Van Buren, which was sold to a private developer but has yet to be developed). The City of Oshawa should therefore expect GM to sell its land to a private developer, as this is what the history shows. As noted below in the recommendations, the City should begin conversations with GM alongside developers to begin planning the future uses of this site together.

Secondly, many of these projects involved a temporary loss of employment that was followed by a renewed economy. News reports found around the time of each plant closing claimed the shutdown to be devastating for the region, which echoes the media surrounding Oshawa over the past year. However, these former GM sites show new employment, such as sales and service, logistics and transport, and healthcare, will eventually arise in the shadows of the manufacturing past. Whether it is a new luxury hotel (Edge on Hudson), a Pepsi-Cola warehouse (Union Seventy Center), or a new movie theatre (Van Nuys), these cases show there is a diversity of jobs to come.

Thirdly, the three developed sites all include a form of mixed-use development. While the types of uses differ among the case studies, each site sought to diversify itself from one major tenant, as well as one major use. Thanks to the abundant amount of land found at Oshawa's GM

Lands, the City of Oshawa can learn from these four case studies and diversify its economy further. As seen at the Van Nuys development, light industrial (e.g. GM emission facility) can mix with sales and service uses (e.g. Home Depot), as well as governmental services (e.g. fire-station).

Faubourg Boisbriand and Bethlehem Steel

The case studies of Faubourg Boisbriand and Bethlehem Steel were included to inspire stakeholders to think creatively about the chance to redevelop the massive GM Lands. For Faubourg Boisbriand, it was a rational-comprehensive approach to a master-planned, mixed-use community that involved pre-zoning from the Ville de Boisbriand and the involvement of a major American developer to manage the demolition and remediation of the site. Faubourg Boisbriand was completed in phases, allowing residents, new workers, and visitors to slowly become accustomed to the space, with future condos and commercial units still to come. It is a truly mixed-use community, with condos, townhomes, a retirement home, restaurants, retail, and light manufacturing all sharing space that was once home to an industrial giant. The key takeaway here is the economic security that Faubourg Boisbriand offers to the community. Where there was once only one user (GM), there is now an assortment of tenants. The risk of losing one of these tenants is now leveraged by a diversity of users on the site, so there will no longer be fear in the community that one company's departure will cause a recession for the area. While this economic security is great for the landowner and the workers on-site, it is also important for the municipality. Secure tenants result in stable sources of property taxes, which was a major loss to the Ville de Boisbriand when GM departed.

For Bethlehem Steel, the only non-GM case study to be included, it was an incremental approach and a flexible planning strategy that saw the explosion of arts, culture, and hospitality take place on the former steel plant. Starting with a casino being built, followed by a hotel and restaurant, the private investment in hospitality then spurred public (and further private) investments into the artistic and recreational aspects of the site. This piecemeal approach succeeded as it left major

sections of the site intact, which allowed for a strong sense of placemaking to occur. The large steel furnace towers that rise above Bethlehem Steel community provide the ideal backdrop to a generation of Instagram tourists and concertgoers, a group seeking an escape from the monotonous design of suburban America and the big-box store shopping plazas that other brownfield sites encompass. Residents and tourists can explore the industrial past of the United States while taking in modern art, enjoying trendy restaurants, and meeting local musicians. Interestingly, where Boisbriand saw new stores and residents to fill the space, stakeholders in Bethlehem looked to art and travellers to revive the area.

Vision for Oshawa

Thanks to the massive space available at the GM Lands in Oshawa, GM, the City, and any future developers can turn any of these aforementioned case studies into a reality. With a location next to public transit and a major highway, part of the GM Lands can act as a perfect space for a mixed-use community similar to Edge on Hudson or Faubourg Boisbriand. The GM Lands could become the next growth centre of Oshawa, acting as a second downtown (and being connected to the main downtown by only one stop on the GO Train, as well as to downtown Toronto in the other direction). Imagine high-rise towers and stacked-townhomes, commercial corridors and public spaces, patio spaces and recreational centres, retirement homes and university learning centres, and all of these being accessible by foot, bike, and public transit.

Other sections of the site, perhaps areas with higher suspected levels of contamination, can remain as light-industrial, housing the logistical warehouses and transport facilities that will be needed to support the growing levels of e-commerce and home delivery services, such as Amazon, in the GTA. These light-industrial spaces could be housed in existing GM structures that were retrofitted rather than demolished, allowing the character of the site to remain, similar to the Union Seventy Center in St. Louis. Even manufacturing uses may still see a need in the future, with

COVID-19 highlighting the significance of having healthcare supplies manufactured in Ontario, especially within the GTA.

In addition to retrofitting buildings for light-industrial uses, the GM lands can be a place where the automotive culture lives on. While GM plans to still operate research and development on the site, there is also a chance to keep the culture of Oshawa's automotive past alive through art, education, and culture. The GM Lands could be home to a new museum that displays how a former assembly line operated, allowing generations of Oshawa residents to explore the gritty and rustic past of their city, learning in an immersive way how a car or truck was built. Oshawa already has the Canadian Automotive Museum downtown, as well as the mansion of the former president of GM Canada Samuel McLaughlin (Parkwood Estates), so preserving part of the Oshawa factory would be a natural extension of these spaces. In addition, similar to the concerts that occur at the Bethlehem SteetStacks, it is exciting to imagine the types of music festivals and concerts that could be supported on the GM Lands, either inside retrofitted facilities or outside within new open spaces.

CONCLUSION

This report has shown that Oshawa is not the first city to have a major automotive assembly plant or industrial factory shut down, nor will it be the last. While the current state of the GM Lands in Oshawa may seem overwhelming and novel to some, there lies inspiration in the stories of other post-industrial spaces. From creating mixed-use development in Boisbriand to reimagining industrial spaces in St. Louis to allowing art and recreation flourish within, rather than alongside, a gritty industrial heritage in Bethlehem, this report has shown there are many ways for cities dealing with this loss of a major industry to redefine themselves. While every city is different and each brownfield project is unique, it would be wise for all stakeholders planning the future of the GM Lands to study each of these examples provided.

This report has also shown that while inspiration lies across North America, stakeholders involved in the future of the GM Lands in Oshawa should be looking internally for inspiration and guidance. As detailed above, the City of Oshawa has a successful history of brownfield development that has won the City many awards, revitalized its downtown core, and attracted both public and private investment to the region. While the GM Lands may be a large and intimidating brownfield site, there are not many other cities in Ontario, let alone Canada, that have the institutional knowledge and practical experience in brownfields that the City of Oshawa does.

In closing, I hope the City of Oshawa can continue this growth as a brownfield development leader. The closure of the GM Lands in Oshawa is providing the City with a chance to reinvent itself - not just economically but also culturally. The City of Motion is indeed still moving, but now it is up to residents and stakeholders of all ages and disciplines to collectively imagine the future they want for their community. As I hope my research has shown, there *are* endless options for life after GM.

RECOMMENDATIONS

Based on the research provided thus far, as well from informal discussions with planners and other stakeholders, here are my recommendations for the City of Oshawa to plan for the future of the GM Lands:

1. Bring in a large developer or investor to partner on the project.

- a. As seen in Faubourg Boisbriand, an international developer and investor was brought in to lead and fund the development. In Ontario, companies such as Kilmer Van Nostrand Co., Dream Unlimited, FRAM + Slokker, and Diamond Corp all have experience with brownfield development, which can involve soil remediation, public-private partnerships, construction, and community engagement. These four companies all recently partnered on a master-planned community on a brownfield

site in Mississauga called Port Credit West Village. Many of these companies have also worked across the country, with FRAM + Slokker currently partnering with the Calgary Municipal Land Corporation on recreating Calgary's downtown's East Village, another massive brownfield.

2. Use financial incentives to encourage development

- a. The City of Oshawa already has financial incentives through its Brownfield CIP program, but more upfront funding should be provided. Developers have noted that funding is a major restriction on brownfield developments (De Sousa, 2015), so the City of Oshawa, through its economic development office, should work with Durham Region and the Province of Ontario to think of innovative ways to further encourage brownfield development, which could include Tax Increment Financing (TIF). The City can also look to the City of Hamilton for motivation as its brownfield program "ERASE" has strong incentives, according to discussions had with brownfield developers.

3. Open conversations with General Motors and developers

- a. In a discussion with the Mayor of Oshawa, it was noted that regular talks are occurring between GM and the City of Oshawa. This is a great first step. With such a large site and an unknown amount of contamination, GM is likely going to be cognizant of its liabilities and act cautiously. As noted with the case studies in the United States, many of GM's previous brownfield sites saw years of delays in being redeveloped, so the City of Oshawa and Durham Region should not wait around for GM Canada to make decisions on its site – both levels of government should be proactive with GM about the future of the land, not just the loss of jobs. The City

should loop some of the aforementioned developers into these discussions as well to prepare the site for redevelopment.

4. Begin public consultations

- a. The City should begin public consultations to understand what the residents of Oshawa desire for the site. Residents should be able to be involved at the idealization stage, rather than just provide comments on already designed site renderings. As seen with the Edge on Hudson development in New York, if residents can push their city for the type and size of development they want early on, they can get ahead of the development process and see those results. It is important to also include GM and any potential developers in all of these consultations.

5. Be proactive with zoning and land uses

- a. As seen in Faubourg Boisbriand, the City of Oshawa can fast track redevelopment by updating the Official Plan and zoning by-laws to match a desired development (which could be decided through public consultations). Strategic planning by the City shows a willingness to see development, which could encourage more investment and raise the value of the site. While some developers I spoke with noted they would still likely require a rezoning regardless of whether the city preemptively rezones (as each development is unique), having a change in land use can be a major signal to all developers, as well as GM, that the City is serious about redeveloping the space.

6. Have flexibility with visions

- a. Every brownfield site is unique. A planner working in brownfield development in the GTA noted that the environmental data will control a lot of the potential uses for the site and that information cannot be found until groundwater testing and soil sampling occurs. Thus, while it is important to create goals from the community, the

City and GM both need to be prepared to be irritable in their visions and designs. Having a 10-year masterplan can help guide development but being adaptable to changes will lead to success.

7. Utilize Oshawa's automotive culture for placemaking

- a. The City of Oshawa's automotive past should be used as a placemaking tool to guide the redevelopment of the GM Lands. Similar to Parkwood Estate (the former house of Samuel McLaughlin) and the Canadian Automotive Museum, both in downtown Oshawa, portions of the GM Lands should be used to promote the manufacturing and automotive history of the region (the GM Lands could house a renewed, even more interactive, version of the Canadian Automotive Museum in the future). As noted in Bethlehem Steel, people are attracted to spaces that highlight the industrial roots of their country – these spaces feel authentic and allow for hospitality and tourism to thrive. The City should work to preserve some of GM's factories, tools, and parts, and work on ensuring that these can be shared for future generations to immerse themselves in. (Imagine taking your grandchildren through a museum showing how a car assembly line that your grandparents worked on functioned?). Many communities can rebuild themselves, but not many have the unique history of Oshawa. It would be a shame to pave this all over.

8. Ensure light industrial uses continue on the GM Lands

- a. As noted with Faubourg Boisbriand and the Union Seventy Center as well as the employment demographics of Oshawa, there is still a need for light industrial uses in North American cities. The City should work with GM and future developers to ensure portions of the land remain viable for light industrial uses. This vision could include distribution centres for major e-commerce companies like Amazon or

Walmart, as well as companies that perform research and development, such as an aeronautics company as seen in Faubourg Boisbriand. Having light industrial uses will allow for a diversity of employment for the region, rather than simply an influx of retail and service jobs.

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