The City of Hamilton has embarked upon a comprehensive review and strategy for the Bayfront Industrial Area. The Bayfront is Hamilton's oldest and largest industrial area and for many years has been viewed as an asset that should be prioritized for reinvestment and redevelopment. The opportunities over the next 25 years are better than they have been for decades.

The first step in the strategy is to gain a baseline understanding of development and redevelopment options in the Bayfront from a market perspective, and to explore the implications of significant land use change in the area. The results will be used as a foundation for Phase 2, including a program of public and agency consultation, an infrastructure and financing ‘gap’ analysis and, ultimately, a planning and land-use review to implement the vision for the future.

Deloitte Real Estate has been retained to prepare Phase 1 of the strategy. The Phase 1 study undertakes a high-level assessment of market opportunities for the Bayfront, including market analysis and market soundings, a review of brownfield success stories and an assessment of land development capacity. Based on this work, the major opportunities and challenges for the Bayfront are identified and a set of strategic directions are recommended.
Dear Mr. Thorne and Ms. Sergi,

Deloitte Real Estate is pleased to provide our assessment of market opportunities for the Bayfront Industrial Area. The report provides the market analysis, soundings and review of land capacity to support a set of strategic directions to assist in future decision-making. In terms of work process, the assignment included detailed information review, interviews with waterfront redevelopment agencies and industry stakeholders and an assessment of brownfield redevelopment success stories.

From this research and analysis, we conclude that there are exciting market opportunities to transform the Bayfront - over time - to a pattern of cleaner, greener and advanced economy uses. With the appropriate actions taken, the future for the Bayfront is indeed bright. It is time for a bold new vision and strategy to capitalize on this vast resource within the broader marketplace. We trust that the information provided in this report is of assistance to the City as they chart a course forward.

We welcome the opportunity to review our analysis, key findings and recommendations. If you have any questions, please feel free to contact me at sbotting@deloitte.ca (416.601.4686) or Antony Lorius at alorius@deloitte.ca (416.775.7010).

Respectfully submitted,

Sheila Botting
Canadian Real Estate Leader
Deloitte LLP
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Executive summary

Transforming the Bayfront industrial area
Executive summary

Bayfront market opportunities

Project summary

The City of Hamilton has initiated a comprehensive review and strategy for the Bayfront Industrial Area. At a total area of approximately 3,700 acres, the Bayfront is Hamilton’s largest industrial area and a major revitalization opportunity. It is home to major steel making producers such as Arcelor Dofasco Mittal and associated industries. It is also home to Canada’s largest Great Lakes Port, a significant multimodal transportation hub that provides users with direct marine, rail and road connections, as well as a major concentration of manufacturing and steel-related uses.

Deloitte’s project role

Deloitte has been retained to undertake Phase 1 of the strategy - The Market Opportunities Study which is a high-level assessment of market opportunities. The assessment includes economic and market analysis of commercial real estate sectors, a review of brownfield success stories and an assessment of land development capacity. One of the most important elements of the Phase 1 study is a series of market soundings with key industry participants including US Steel, Arcelor Dofasco Mittal (ADM), waterfront redevelopment agencies in Canada and the United States and Provincial economic development representatives.

Based on this research and analysis, opportunities and challenges are identified and strategic directions are recommended. The results of this market opportunities study will be used to guide Phase 2 of the Strategy, which includes a program of public and agency consultation, an infrastructure and financing ‘gap’ analysis and, ultimately, a planning and land-use review.

The Hamilton market has entered a period of growth and transformation. The next 25 years are forecast to provide tremendous economic opportunity as employers take advantage of Hamilton’s unique location and infrastructure to drive business opportunity.
Executive summary (cont’d)

A strategy for the Bayfront industrial area

Time for a bold new vision

The Bayfront Industrial Area (the “Bayfront”) has been part of Hamilton’s industrial, economic and cultural legacy for decades. In recent years, however, it has increasingly become part of the community debate over economic development and the future of the steel industry. It has also facilitated discussion about the planned intensification and revitalization of Hamilton’s West Harbour area along with planned infrastructure investments, notably the new GO Station along James Street North that will provide regular service to Toronto’s financial core.

Benefitting from a strategic waterfront location, proximity to the downtown, and resources of underutilized lands, the Bayfront represents one of the most significant potential City-building opportunities within the broader Hamilton metropolitan region. The evolution of the Steel Industry, while providing a number of community challenges, also presents the promise of a new future with a strong established base and potential land parcels becoming available in the near term. The City has also put in place a consolidated vision for industrial development through its new official plan, zoning by-laws and economic development strategies.

For many years, there has been an interest in reinvestment and redevelopment in the Bayfront, but the economics and growth prospects were not favorable. Today, conditions are evolving. A large and competitive business park is coming on stream around the Airport. There is a growing interest in advanced manufacturing industry including the burgeoning life science and agri-business and food processing clusters in the City. Hamilton’s vision for intensification and redevelopment in the downtown along major corridors and in the waterfront is gaining traction. Congestion and high costs in Toronto will only make Hamilton’s value proposition stronger over time.

Within this emerging context, and given the very large scale of the Bayfront, the time has come to chart a new course. A new vision is required to strategically reposition and encourage new investment in the Bayfront for the next generation of residents.
Executive summary (cont’d)

Economic context and growth outlook

A bright future for Hamilton in the years ahead

The City of Hamilton is geographically well positioned in the Southern Ontario Mega-region with good access to the rest of Canada and the US markets through highways, the port and the airport. The City is forecast to grow steadily in population and employment, which will drive the addition of significant new industrial, office and retail space.

Globally, the outlook is for the most rapid growth in the developing economies such as China, Brazil, India and Mexico, among others. The US economy continues to recover, and is forecast to maintain its economic strength over the coming decades.

Ontario’s economy is expected to outperform the national economy primarily due to the low exposure to the oil and gas extraction sector, resulting in increased spending and consumption, which could benefit Hamilton. Although trade patterns will continue to evolve, the US will continue to be Ontario’s largest trading partner.

Well regulated and stable financial markets with increased public and private sector capital and infrastructure investments will provide access to low-cost capital, export markets for Ontario products, and improve import and investment opportunities for Hamilton.

The Strength of the US market over the longer term is a key advantage, specifically with respect to the prospects for the advanced manufacturing industry and productivity growth. The export opportunity with emerging markets is significant. Given its strong base in the steel industry and growth outlook, Hamilton can play a key role in advancing productivity growth within the metropolitan area. Plans for the West Harbour, recent and pending infrastructure investments and increasing downtown renewal bode well for Hamilton in the years ahead.

Executive summary (cont’d)

Economic context and growth outlook

Shifting growth patterns bode well for exports

The global economic picture is one of moderate growth overall, with the most rapid expansions occurring in emerging economies such as Mexico, China, Brazil and India, driven mainly by the evolution of manufacturing and the global supply chain. Recent Deloitte research shows that, as of 2012, Canadian companies expected that over the next three years a growing share of their future customers would come from emerging markets.

The outlook for the Canadian Economy is positive, particularly for the Province of Ontario, and the Greater Golden Horseshoe, which is forecast to accommodate almost all of the forecast growth in population, employment and new business investment. The remainder of the Province is forecast to grow by only moderate amounts, or, in the case of the north, to continue to decline.

Within the Greater Toronto and Hamilton area (GTHA), economic growth continues to be focused in the north and west, particularly in locations that can provide a competitive supply of industrial business parks and accessible office locations in proximity to US transportation corridors. The forecast is for this pattern to continue over the period to 2041, and the City of Hamilton is extremely well positioned to take advantage of future opportunities.

Principal amongst the key long-term issues to be addressed to ensure long-term economic competitiveness is the need to improve productivity and shifts towards more advanced industry activities. The Ontario population continues to age and the pace of growth in the core working-age group is slowing. As the growth of the labor force slows, stronger productivity gains will be increasingly important to ensure future prosperity. Manufacturing will play a major role in advancing productivity, innovation and exports: all high on the Provincial economic development agenda.
Economic context and growth outlook

Office market dominated by downtown Toronto and established suburbs

The GTAH office market will continue to be dominated by the City of Toronto and established suburban nodes in Mississauga, Markham/Richmond Hill and the QEW corridor. A growing opportunity is evolving within the Kitchener-Waterloo Region largely due to the presence of universities and innovative research. A more limited role is anticipated for Hamilton in the broader metropolitan context based on provincial forecasts.

Approximately 3.5 million sf of new office are forecast for the Hamilton market, which nearly doubles the current inventory. It has yet to be determined exactly where this new office growth will occur and provides an opportunity for the City of Hamilton to develop a strategy to attract offices. It is estimated that between 90,000 to 190,000 sf of new office supply could potentially locate in the Bayfront area, comprised mainly of brick and beam space catering to the Information and Communications Technology (ICT) and digital media sectors and potentially owner-occupied buildings. To date, Downtown Hamilton has attracted largely public sector users with many buildings reporting significant vacancies. Outside of the City of Toronto, most new office space users at this point prefer low cost greenfield suburban locations with abundant surface parking and highway accessibility.

Industrial market continues GTA westward drift

Strong industrial employment growth is forecast, focused in the GTA west and north. Hamilton is anticipated to accommodate significant new industrial space, mostly for large warehouse and distribution on greenfield sites on the mountain and around the airport. Manufacturing will continue to play a role, particularly for advanced manufacturing in life science, materials, agri-business and food processing. The ability of the Bayfront Area to compete for these uses will depend heavily on the future of the US Steel site. Depending on the outcome of the current creditor protection proceedings, there is a potential to accommodate up to 10.5 million square feet of new industrial space on the site. Due to the value of the equipment and production capacity on the US Steel site and health of the surrounding cluster, it is anticipated that steel production will continue for some time.

Retail growth driven by population and City Planning vision

Growth in retail and other population-serving activities is expected to be driven by population growth and is more evenly distributed than employment growth throughout the region. The outlook for retail is driven primarily by the provincial policy direction to encourage new retail to locate along the key nodes and corridors, as opposed to designated employment areas. In the Bayfront, future retail is likely to be limited to accessory or quasi-industrial development as opposed to traditional strip, shopping mall or ‘large format’ retail developments.
Executive summary (cont’d)

Market soundings

Maintain strength in key legacy sectors while growing new industry

The focus of the market soundings were on identifying the key success factors and lessons learned from successful urban waterfront renewal initiatives, as well as on other industry and community stakeholders such as the Port of Hamilton and the local Steel Industry. Soundings were undertaken with:

1. The City of Pittsburgh
2. Waterfront Toronto
3. The Ministry of Economic Development Trade and employment/Research and Innovation (MEDTE/MRI)
4. US Steel
5. ArcelorMittal Dofasco
6. City of Hamilton Planning and Economic Development Staff
7. Partners and internal subject matter experts from Deloitte
8. Dennis Desrosiers (auto industry outlook)
9. Real estate brokers including Colliers International and Cushman & Wakefield.

A consistent theme arising out of the soundings was the need for a two-pronged approach: 1. maintain and leverage strength in the core manufacturing and steel sectors, and 2. grow new cleaner, greener and advanced economy uses in the area. The need for a broad vision coupled with an aggressive and targeted approach was consistently identified as a key factor to future success.
Executive summary (cont’d)

Uncertainty over the future of US Steel

US Steel current situation, potential outcomes and implications for Bayfront

The US Steel Site comprises 800 acres, 200 acres of which are actively used for Coke and finishing operations. The remaining 600 acres are occupied by a small amount of current operations staff with the surplus comprising a range of underutilized lands and buildings.

Over the last 20 years, employment at the US Steel site has gradually declined. The decline has been due to a number of factors including industry changes, the evolving competitive environment for the steel industry, automation of many aspects of production and closure of the plate and tin making facilities. Citing these and other losses, US Steel Canada (USSC), under the Companies' Creditors Arrangement Act (CCAA) bankruptcy protection proceedings, entered into creditor protection in September 2014. On May 7th 2015, USSC extended this stay period.

The outcome of these proceedings will not be known for some time. With the range of issues and interests at play, there are many possibilities. Based on the market soundings, the coke and finishing operations remain valuable, with the result that these operations could be sold in whole or in part. Likewise, all or part of the underutilized land and building supply could be sold in whole or in part, either along with current operations or alone. With the series of recent stay extensions in the credit protection process, there is the possibility that the status quo will be maintained and no significant change will occur on the site in the immediate future. There is also uncertainty over how the Nanticoke facility will be factored in to any potential sale or other solution to the current process.

At this point, due to the high value of some of the existing operations (notably the Coke and finishing line) it is not unreasonable to anticipate that steel production will continue at this location for the foreseeable future. We understand that a foreign purchaser has moved forward to acquire the business for steel production and therefore it confirms the assumption that this property will remain in heavy industrial uses for the foreseeable future. Nevertheless, the site would still present significant opportunities for intensification and redevelopment over the years to come.
Executive summary (cont’d)
Large scale urban renewal and redevelopment

Case studies indicate a common set of success factors

Case studies were undertaken of brownfield redevelopment and specifically waterfront redevelopment in such communities as Pittsburgh, Chicago, Toronto and others. The focus was on identifying a set of key success factors in the redevelopment and revitalization of major waterfronts. Based on our review and market sounding process, the following key success factors emerged relevant to the Bayfront:

• Major waterfront redevelopment plans take time if not decades to properly plan and implement. Both the City of Toronto and Pittsburgh initiated their plans nearly 30 years ago.

• Municipal ownership is very effective. Public control of key or strategic sites was central to the success of many waterfront redevelopment successes.

• Significant financial incentives are required to transform legacy properties and address brownfield issues. Government engagement in the transformation process is crucial to attract private sector developers to accept risk associated with significant property investment.

• Public participation and community engagement are important to develop and communicate the vision and ensure that local residents understand the current conditions and embrace potential outcomes.

• Taking a wider perspective to focus on off-site benefits can have tremendous impacts, such as linking specific developments to the downtown or local neighbourhoods. Some links already exist, for example with West Harbour.

• Partnerships with the development community combined with financial incentives can be very effective. Often structured financial arrangements bringing together public and private sector can have positive outcomes with transformational development opportunities.
Opportunities, constraints and future directions

Context for the strategic directions

The Hamilton real estate market has the potential to enter into a period of tremendous growth and transformation. The consensus view is for a rapidly growing residential, cultural and economic role for the City in the broader metropolitan region. With a strong growth outlook and diminishing potential for high-quality industrial sites in the GTA West, Hamilton is well positioned to compete for new investment. Economic opportunities for the City and the Bayfront area are better now than they have been for decades. That being said, it will be important for local government together with the business and development community to fully plan, embrace and take advantage of the market opportunities.

Opportunities

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<th>Demand for real estate</th>
<th>Location and pattern of development</th>
<th>Hamilton Port</th>
<th>Steel and advanced manufacturing</th>
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<tr>
<td>1</td>
<td>The outlook for Ontario and GTAH is positive in the short and the long term. Hamilton is positioned very well to compete from an industry and rapid urbanization perspective. The City is steadily becoming more attractive for investment across all asset classes.</td>
<td>Growth will drive steady demand for real estate to accommodate residential, industrial, retail and to a more limited extent office development over time. Growth has already begun to create an overall ‘energy’ and momentum that bodes well for the Bayfront over time.</td>
<td>Bayfront’s strategic location, direct 400 series highway access, rail, airport and port infrastructure and presence of underutilized lands and buildings creates an opportunity for intensification. The most significant opportunity by far relates to the underutilized land and building supply potential on the US Steel site.</td>
<td>The Hamilton Port plays a major economic role in the Hamilton and broader GTAH market. The Port supports a range of important economic sectors including Steel, food processing, the building and construction industry, municipal maintenance and others.</td>
<td>The Steel sector in Hamilton is performing well and supports the Province’s priorities to advance productivity, innovation and exports. Surplus infrastructure capacity, especially for water and energy, could appeal to a range of new users such as life sciences and clean technology.</td>
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## Executive summary (cont’d)

### Opportunities, constraints and future directions

#### Constraints

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<th>Challenge</th>
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<td>1</td>
<td>Most new industrial and office development is anticipated to be met on Greenfield sites in Red Hill South (RHS) and the Airport Employment Growth District (AEGD). The potential for retail is limited by Provincial and City planning policy direction to focus development along the nodes and corridors. Within this context, the Bayfront will be competing for smaller parts of the market.</td>
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<td>2</td>
<td>The Bayfront lands currently function as a specialized area for heavy industry, which makes repurposing many existing facilities difficult. According to the market soundings, existing and established landowners are typically not interested in a sale or redevelopment of their properties for economic and historic reasons. The presence of heavy industry acts as a barrier to new investments.</td>
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<td>3</td>
<td>The perception of the Bayfront as an old, heavy industrial area acts as a disincentive to mainstream industrial development, especially cleaner, more innovative industries. Relatively high tax rates can lead to a perception of high costs of doing business. There are also misperceptions about the nature of the economic base, the state of industry and the role of the Port in the Bayfront, compounding an already cautious investor sentiment.</td>
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<td>4</td>
<td>The increased cost of redevelopment for ‘brownfield’ sites and uncertainty over the level of contamination in the Bayfront is a constraint to new investment and redevelopment. It is also an impediment for private investors from a financial, risk management and therefore development feasibility perspective.</td>
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<td>5</td>
<td>The current appearance of the Bayfront encourages the perception of the area as home to a base of declining older ‘rustbelt’ industry. The heavy industrial appearance also acts as a significant disincentive to users seeking a clean new greenfield location. The lack of a Gateway feature signals insecurity over the role and function of the area.</td>
<td>Challenge: Market Demand: Bayfront competes for a smaller part of the market. Steps need to be taken to increase maker appeal</td>
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Executive summary (cont’d)

Opportunities, constraints and future directions

Strategic directions

The Bayfront will remain an employment area for at least the short to medium and very likely beyond. Significant land use change is a very long-term proposition. The overarching goal therefore should be to maintain a strong position in legacy sectors while growing and expanding into new sectors. The following are strategic directions to achieve this objective.

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<td>3</td>
<td>Encourage more efficient use of existing land and building supply</td>
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<td>4</td>
<td>Consider targeted site acquisition to acquire an element of control</td>
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<td>5</td>
<td>Establish a program to bring sites to market</td>
</tr>
<tr>
<td>6</td>
<td>Explore program management options</td>
</tr>
</tbody>
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![Diagram of Strategic Directions]

- Establish Vision
- Ensure Supply
- Strategic Directions
- Program Options
- Bring sites to market
- Efficient use of the space
- Targeted Acquisition
## Executive summary (cont’d)

### Opportunities, constraints and future directions

#### Strategic directions

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<th>Establish a vision for the Bayfront area</th>
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<td>1</td>
<td>It is clear from our analysis, the market soundings and case studies that the first step is to establish the vision. The vision must be one that shifts the dominant misperception of the Bayfront as a declining industrial area and establishes the location as a significant economic development opportunity. The vision is also required to correct current misperceptions about the nature of the economic base, the state of industry, the role of the Hamilton Port and the constraints that need to be overcome to encourage reinvestment and redevelopment.</td>
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<tr>
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<th>Ensure AEGD and other Greenfield supply comes to market soon</th>
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<td>2</td>
<td>The AEGD and Red Hill lands are potentially the City’s most important asset to compete in the GTA industrial market. These lands must be moved through the process from unserved lands to serviced development sites as soon as possible. Accelerating these lands will ensure continued economic vitality, increase the overall level of investment activity help increase demand for the Bayfront.</td>
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<th>Encourage more efficient use of existing land and building supply</th>
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<td>3</td>
<td>The City needs to improve the market appeal of the existing area through highly visible investments in infrastructure and other capital projects. It will also be necessary to work with the eventual owners of the US Steel site to maximize potential of the asset. The City should also work with other landowners to ensure future development is aligned with the City vision and consider selected conversions to other employment uses, including retail.</td>
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<td>4</td>
<td>Given the economics of redevelopment, a more aggressive approach may be required to encouraging new development. Case studies show clearly that municipal site control is a key factor in the success of brownfield redevelopment projects. The City should consider targeted site acquisition to gain control of competitive parcels to encourage new business investment, and engage Federal and Provincial authorities around the brownfield cleanup opportunity.</td>
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<td>5</td>
<td>A program should be established to bring the sites to market. Elements of the program should include facilitating the delivery of underutilized sites to market, providing greater clarity and certainty over the level of contamination, identifying and fostering other intensification opportunities and advising on the need for incentives and investment to drive new development.</td>
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<th>Explore program management options</th>
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<td>6</td>
<td>The City should also consider options for program management. One option could be the creation of a Steering Committee to provide oversight and guidance. Current committees should not take on this role. The emphasis should be on private sector appointments with industrial land development experience and senior business leaders familiar with real estate finance and municipal decision-making dynamics, including the Steel Industry, the Port, the Airport and Rail companies, and political representation from the City (ideally the Mayor) as well as from the brokerage community familiar with heavy industry in the Hamilton / Burlington / Niagara area.</td>
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Section 1

Background and terms of reference
Background

Hamilton’s Bayfront Industrial Area (the Bayfront) is located in the north end of the City, bounded by Wellington Street North in the west, Woodward Avenue to the east, north of Barton Street and south of Hamilton Harbour and the QEW. At a total area of approximately 3,700 acres, the Bayfront is Hamilton’s largest industrial area and a major revitalization opportunity. It is also home to Canada’s largest Great Lakes Port, a multimodal transportation hub, that provides users with direct marine, rail and road connections, as well as a major concentration of manufacturing and steel-related uses.

Overall goals and approach

The overall goal of the strategy is put in place with a set of conditions that will support revitalization of the Bayfront industrial area, long identified within the community as an opportunity for transformation and revitalization. This has occurred most recently as part of the City’s planning to come into conformity with the Growth Plan for the Greater Golden Horseshoe (the Growth Plan) and the designation of the Airport Employment Growth District (AEGD).

Recognizing the significance of the Bayfront area to the City, Hamilton’s official plan calls for the preparation of a strategy for the lands, the first phase of which is this Market Opportunities Study. The overall approach taken to the assignment includes market analysis, market soundings with potential investor and other communities that have successfully implemented waterfront transformation projects and the identification of key challenges and opportunities for the area.
Terms of reference (cont’d)

Work program and key tasks

Structure of the assignment

As illustrated below, the assignment has been undertaken in three main stages. The purpose of Stage 1 is to undertake economic and market analysis, review examples of brownfield redevelopment and identify the key opportunities, constraints and limitation to the revitalization of older industrial areas. In Stage 2, a series of market soundings were undertaken to explore options and the implications of significant land use change in the Bayfront. In Stage 3, an assessment of land development capacity is undertaken along with a comparison of the Bayfront to Hamilton’s other industrial areas and strategic market opportunities are identified.

Stage 1
- Review available plans, documents and background reports
- Identify key opportunities, constraints and limitations regarding such matters as intensification, the outlook for the Hamilton Port, the Steel Industry and others
- Assess industrial brownfield redevelopment projects to identity key success factors

Stage 2
- Develop a survey to explore options for the Bayfront
- Conduct telephone surveys with a range of stakeholders, including communities that have successfully implemented waterfront revitalization projects such as Pittsburgh, Chicago, Detroit and Toronto
- Obtain additional feedback from the City of Hamilton Planning and Economic Development Staff and Council

Stage 3
- Assess land development capacity, including areas with greatest potential for intensification
- Determine future real estate potential, including an economic ‘reality check’ on development potential
- Identify strategic market opportunities, including alignment between market and City and Provincial objectives, actions required to capitalize on market opportunities and potential for incentives from other levels of government

The results are described in the following report, beginning with a review of the Bayfront Industrial Area including land use and Sectoral profile, servicing and recent development activity. This is followed by a review of the Economic Outlook and the Bayfront within a broader market perspective and then a description of the results of the market sounding process and review of relevant brownfield redevelopment projects. Following the results of the market soundings is our assessment of the key opportunities and challenges for the Bayfront and corresponding recommendations and strategic directions.
Section 2

The Bayfront industrial area
Asset description and background
Bayfront industrial area

Asset description

Hamilton Bayfront in context

The Bayfront Industrial area forms part of an integrated north-Hamilton area containing different land uses, major industrial users including ArcelorMittal Dofasco (AMD), outdoor recreation and the Port of Hamilton. It is proximate to the City’s planned redevelopment project and the soon-to-be completed new GO Station along James Street North. West Harbour, located west of the Bayfront lands, include parks, recreational uses, the marina and other private and institutional uses. It is the future location of a significant planned high density residential and mixed-use community.

A. The Port of Hamilton (Piers 10 -15, 22 - 28 & 34)
B. ArcelorMittal Dofasco (Piers 20 & 21)
C. US Steel (Stelco) (Piers 16 & 18)
D. West Harbour
E. The Beach
F. Go Station and Via Rail Train Station
G. Hamilton Airport
Bayfront industrial area (cont’d)

Background

Part of Hamilton’s industrial heritage

The Bayfront Industrial area, along with the Hamilton Port and the Steel Industry, has for decades been emblematic of the community and at the centre of the City’s culture, identity and economy. Although many may view the Bayfront area as generally underutilized, it accommodates a number of activities and functions that play an important role.

- The area accommodates a significant steel industry, including the most well-known producer, ArcelorMittal Dofasco (AMD), who continues to invest in its Hamilton facility and has made its expansion plans clear.

- The area accommodates a significant cluster of manufacturing activity, in part related to steel, which is an important part of the local and regional economic base. Although total employment may have declined from its peak in the 1970s and 1980s, the local industry continues to adapt to shifting competitive environments.

- The area accommodates the City’s only working marine port and the largest on the Great Lakes. In addition to its active use for the delivery and storage of road salt and other bulk construction materials required for City operations, the Port handles nearly 10 million tonnes of diversified cargo and provides extensive warehousing and bulk storage capacities serving the growing food processing and other City sectors. From a transportation perspective, the combination of marine, rail and 400-series highway access gives the Bayfront a unique competitive advantage.

In assessing the future of the Bayfront, opportunities to capitalize on these assets will continue to be identified. In order to provide a broad context for the economic and market review which follows, this section provides a description of the current conditions in the Bayfront Area and the surrounding context.
Bayfront industrial area (cont’d)

Background

Building types typical for an older industrial area

The historic growth of Hamilton as a Port City led to the development of a major manufacturing centre and a building inventory that exhibits the characteristics of an older heavy industrial area. The area includes commercial, mixed-use and residential buildings, as well as open storage and large warehousing buildings with the age of the stock varied.

Industrial buildings represent the most dominant type of building type within the Bayfront Area, ranging from large steel mills to medium-sized warehouses and small machine and repair shops. In many cases, the decline in business activity in the area over the last 25 years has resulted in property and building deterioration and, from time to time, property abandonments.

Commercial and mixed-use buildings are also observed in the Bayfront, the most typical being small-scale office and service uses associated with manufacturing and/or warehousing. Mixed-use and commercial buildings tend to be located near the existing residential areas. Other businesses include a mix of smaller auto-related buildings which are interspersed between the larger land operators and residential areas. There are several auto body repair, sales and general garages located along the main streets of the Bayfront area. General commercial uses are located throughout the Bayfront area and tend to be relatively clustered.

Unlike many other industrial areas, the Bayfront also accommodates a number of residential communities either within the area or at the margins with the central Hamilton area.
Bayfront industrial area (cont’d)

Background

Presence of residential is unique

Though the Bayfront is primarily intended for industrial uses, there are areas of residential use at the southern margin of the area. The Keith Neighbourhood is located within the Bayfront area although it has been excluded from a planning perspective. Many of these communities are clustered in areas known as “residential enclaves”. The enclaves are a legacy of historic development in the Bayfront, when residents settled closer to industrial areas.

The City has for decades been seeking to address the issue of potential conflict with the existing residential uses in the Bayfront. In the 1980s, a formal program was put in place to acquire some of these residential properties to convert them to employment uses. The program was put on hold for many reasons, including rising home values and the impact on acquisition costs and growing opposition from local area residents.

In 2007, the Strategic Services-Special Projects Division of the Planning and Economic Development Department conducted a review of the enclaves. Overall, the study concluded that the smaller residential enclave areas will continue to decline and diminish over time. The larger and more concentrated residential enclaves such as the Keith Neighbourhood, which had a “buffer” from surrounding uses, were considered more likely to remain intact.

The City has proactively developed neighbourhood action plans including the Keith Neighbourhood Action Plan. As a result of these plans opportunities have been created for residents to meet and these interactions and engagements are expected to result in increased employment opportunities for the residents.
Current uses, infrastructure and overall policy direction
Bayfront industrial area (cont’d)

Current uses

Historic context

As Canadian steel production became more concentrated in Hamilton in the post-war years, the Bayfront Industrial Area expanded significantly. Much of this expansion took place through the placement of fill into Hamilton Harbour to create new industrial land. As illustrated at right, infill comprises over 614 ha, or 40% of the approximately 1,500 ha Bayfront area. Because of the nature of the fill, there is some question as to the load bearing capacity of the soils from a redevelopment perspective.

Land contamination

Due to the historic development of heavy industrial and steel-related uses, portions of the Bayfront are likely contaminated. In fact, the area has been built on likely contaminated soils that were placed as fill. The level, however, varies and the extent of contamination cannot be determined without an investigation into each of the potentially affected properties.
Vacant available and competitive land supply is limited

Despite the appearance of large open areas of unused industrial land, the actual supply of available and competitive properties is limited. The vast majority of the Bayfront is currently occupied by industrial uses, albeit at relatively lower lot coverage and employment densities.

There are a total of 76 vacant land parcels in the Bayfront which, taken together, amount to 48.8 ha or 3% of the total inventory of 1,448.8 ha. The majority of these sites are relatively small, less than one hectare in size, and scattered throughout the area. Of the total 76 vacant sites, only 11 are over one acre in size and total 45.1 ha. (111.4 acres). These 11 properties represent almost all (91%) of all the vacant potential in the Bayfront.

There may be some additional vacant potential on the parcels owned by US Steel, Arcelor Dofasco Mittal and Imperial Oil (451 Victoria Ave N. and 472 Wellington St. N) but we are advised that these lands are not available to the market. Additionally, it is understood that the property at 440 Victoria Avenue, while currently vacant, is in the process of redevelopment. As a result, the actual amount of vacant lands available for development is extremely limited.

As a result, at present the current vacant supply is not anticipated to play a major role in accommodating mainstream demand for new office or clean industrial users. For the most part, these uses require large, greenfield development sites with good highway access. This issue is addressed in more detail in the market analytics section.
Bayfront industrial area (cont’d)

Current uses

Sectoral profile - Major manufacturing and steel center

Based on the City’s 2014 employment survey, over 80% of all jobs in the Bayfront are in manufacturing (74%) and supporting storage and transportation uses (7%). The remainder comprises a mix of commercial, office and institutional uses, such as healthcare and social services. Commercial and other uses (including residential) tend to be clustered in distinct areas. Entertainment and recreational uses are limited. This profile reflects the historic development of the Bayfront as a steel cluster and its evolution over the years.

### Clustering of Commercial Areas in the Bayfront

<table>
<thead>
<tr>
<th>Location</th>
<th>Types of commercial uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>The intersection of Burlington Street East and Wentworth Street North</td>
<td>• Auto repair</td>
</tr>
<tr>
<td></td>
<td>• Personal service</td>
</tr>
<tr>
<td>Rowanwood Residential Enclave between Birmingham Street and the railway corridor, east of Northcote Street</td>
<td>• Auto repair</td>
</tr>
<tr>
<td></td>
<td>• Multiple dwelling</td>
</tr>
<tr>
<td></td>
<td>• Personal services</td>
</tr>
<tr>
<td></td>
<td>• General commercial</td>
</tr>
<tr>
<td>Barton Street between Parkdale Avenue and Woodward Avenue</td>
<td>• Retail</td>
</tr>
<tr>
<td></td>
<td>• Auto-related commercial</td>
</tr>
</tbody>
</table>

Source – Information based on consultation with City of Hamilton Planning Staff

### 2014 Employment Type Bayfront Industrial Area

<table>
<thead>
<tr>
<th>Employment Type</th>
<th>Full Time Employees</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource Extraction</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Resource Production</td>
<td>5</td>
<td>0%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13,170</td>
<td>74%</td>
</tr>
<tr>
<td>Storage and Transportation</td>
<td>1,240</td>
<td>7%</td>
</tr>
<tr>
<td>Commercial</td>
<td>1,465</td>
<td>8%</td>
</tr>
<tr>
<td>Office</td>
<td>1,480</td>
<td>8%</td>
</tr>
<tr>
<td>Institutional</td>
<td>365</td>
<td>2%</td>
</tr>
<tr>
<td>Entertainment and Recreation</td>
<td>45</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>17,770</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source - City of Hamilton Annual Employment Survey (2014). Due to different employment types and data capture methodology, it is not possible to compare the results of the 2014 survey with those from the original 2013 survey.
Bayfront industrial area (cont’d)

Current uses

Heavy industry dominates the land base

The Bayfront is located along the Hamilton Harbour waterfront and encompasses 1,449 hectares, located generally between the waterfront to the north, Barton Street to the south, Wellington Street to the west and Woodward Street to the east. Medium and heavy industrial, (dark purple) along with transportation and utilities dominates as the predominant land uses in the area. Some commercial, mixed-use and residential lands are located at the margin of the Bayfront and central Hamilton neighbourhoods.

Bayfront Industrial Area Land Inventory
Dec 31, 2014

<table>
<thead>
<tr>
<th>Primary Land Use</th>
<th>Parcels</th>
<th>Gross Ha</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industrial - Light</td>
<td>19</td>
<td>10.1</td>
<td>1%</td>
</tr>
<tr>
<td>Industrial - Medium</td>
<td>263</td>
<td>303.3</td>
<td>21%</td>
</tr>
<tr>
<td>Industrial - Heavy</td>
<td>39</td>
<td>795.5</td>
<td>55%</td>
</tr>
<tr>
<td>Institutional</td>
<td>6</td>
<td>4.5</td>
<td>0%</td>
</tr>
<tr>
<td>Non-Developable</td>
<td>17</td>
<td>1.4</td>
<td>0%</td>
</tr>
<tr>
<td>Office</td>
<td>9</td>
<td>1.9</td>
<td>0%</td>
</tr>
<tr>
<td>Parking Lots</td>
<td>28</td>
<td>14.3</td>
<td>1%</td>
</tr>
<tr>
<td>Residential &lt; 1 Acre</td>
<td>760</td>
<td>19.3</td>
<td>1%</td>
</tr>
<tr>
<td>Retail</td>
<td>81</td>
<td>22.7</td>
<td>2%</td>
</tr>
<tr>
<td>Utilities / Transportation</td>
<td>80</td>
<td>183.5</td>
<td>13%</td>
</tr>
<tr>
<td>Vacant Land (Potentially developable)</td>
<td>76</td>
<td>48.8</td>
<td>3%</td>
</tr>
<tr>
<td>Warehouse / Storage</td>
<td>49</td>
<td>43.6</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1427</strong></td>
<td><strong>1,448.8</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Source - City of Hamilton, Bayfront Industrial Area Land Inventory - December 31, 2014

More than 75% (1,099 ha) of the current land area is in use for light, medium and heavy industrial use.

Most of the remainder (184 ha or 13% of the total) is in supporting transportation uses and the Hamilton Port (shown as Utilities)
Bayfront industrial area (cont’d)

Current uses : Steel industry stands out

US Steel

The US Steel facility (formerly Stelco) was once Canada’s largest and most diversified steel producer. At its peak, total employment was nearly 15,000 workers, which has now been reduced to 2,300 (Hamilton Spectator, Mar 24, 2015). Over the years, the facility has been involved in all major segments of the steel industry. Steel products produced on the site have included hot-rolled, cold-rolled and coated sheet, bars and manufactured products. As part of its ongoing restructuring, in 2012 US Steel had contemplated the sale or lease of the surplus lands, which are now being considered as a part of the current creditor protection proceedings. The final outcome may not be known for some time, but we understand that a foreign purchaser has moved forward to acquire the business for steel production and therefore it confirms the assumption that this property will remain in heavy industrial uses for the foreseeable future.

Section A – 46.7 acres for lease; Section B – 253,000 sf building for sale / lease, Section C – 24.9 acres on water for sale / lease

Source – US Steel Pier 17 and 18, Sale information package, Colliers
Bayfront industrial area (cont’d)

Current uses: Uncertainty over the future of US Steel

US Steel current situation, potential outcomes and implications for Bayfront

Over the last 20 years, employment on the US Steel site has gradually declined. The decline has been due to a number of factors including industry changes, the evolving competitive environment for the steel industry, automation of many aspects of production and closure of the plate and tin making facilities. Citing these and other losses, US Steel Canada (USSC), under the Companies' Creditors Arrangement Act (CCAA) bankruptcy protection proceedings, entered into creditor protection in September 2014. On May 7th 2015, USSC extended this stay period. Currently, of the total 800 acres, only 200 acres are currently in use, mainly for the coke and finishing operations. The remaining 600 acres comprise a range of underutilized lands and buildings.

The outcome of the current creditor proceedings will not be known for some time. With the range of issues and interests at play, there are many possibilities. Based on the market soundings, the coke and finishing operations remain valuable, with the result that these operations could be sold in whole or in part. Likewise, all or part of the vacant and underutilized land and building supply could be sold in whole or in part, either along with current operations or alone. With the series of recent stay extensions in the credit protection process, there is the possibility that the status quo will be maintained and no significant change will occur on the site for the foreseeable future. There is also uncertainty over how the Nanticoke facility will be factored in to any potential sale or other solution to the current process.

At this point, due to the high value of some of the existing operations (notably the coke and finishing line) it is not unreasonable to anticipate that steel production will continue at this location for the foreseeable future. Nevertheless, the site could still present significant opportunities for intensification and redevelopment over the years to come.
Bayfront industrial area (cont’d)

Current Uses: Steel industry stands out

ArcelorMittal Dofasco (AMD)

Established in 1912, Dofasco Inc. (now ArcelorMittal Dofasco) is one of Canada’s largest steel producers, serving customers throughout North America with high-quality flat-rolled and tubular steels and laser-welded blanks from facilities in Canada, the United States and Mexico. The Arcelor facility has been performing very well in recent years and has made significant investments in the current facility. Arcelor has invested more than $250 million in the past five years in new technology and equipment; including an $87-million upgrade to the steelmaker’s coke ovens. Plans are underway to hire 1,000 workers over the next three years to replace retiring baby boomers and continue to meet market demands (Hamilton Spectator, Feb 19th, 2015).

With more than 5,000 employees in Hamilton they are currently, the city’s largest private sector employer shipping 4.5 million net tons of steel every year. Their operations hub is a 730 acre steel-making facility in Hamilton and is one of the most efficient, flexible and technologically advanced steel plants in North America. Unlike US Steel, the AMD site is fully utilized and also often requires off-site storage capacity elsewhere in the Bayfront to satisfy production requirements.
Bayfront industrial area (cont’d)

Current Uses: low lot coverage does not mean economic underuse

Historic pattern of development has led to a perception of under utilized lands in many locations

As shown below and at right, the majority of the Bayfront area tends to be occupied at low lot coverages. Yellow parcels indicate building coverage as low as 10%, with darker shades representing higher coverages. Both US Steel site and the AMD site are shown at a range of 10 to 30% overall site coverage, with higher coverages shown closer to the margin with the downtown.

It is important to note, however, that the nature of the steel industry in the Bayfront area, however, is such that large areas of space are required for outdoor storage. This is particularly the case with the Port, which is unable to operate during many of the winter months because of ice. As a result, low lot coverage is not necessarily an indication of economic underuse or underutilization.

Overall more than 500 properties on the Bayfront have a less than 30% coverage, which represents 1,247 ha or 80% of the total land area on the Bayfront. This does not mean, however, that the lands do not make a significant contribution to the City’s economy.

<table>
<thead>
<tr>
<th>Site Coverage</th>
<th>Properties</th>
<th>Land Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 10%</td>
<td>193</td>
<td>435</td>
</tr>
<tr>
<td>10% - 30%</td>
<td>309</td>
<td>812</td>
</tr>
<tr>
<td>30% - 50%</td>
<td>613</td>
<td>226</td>
</tr>
<tr>
<td>50% - 70%</td>
<td>214</td>
<td>66</td>
</tr>
<tr>
<td>70% - 100%</td>
<td>90</td>
<td>37</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,419</td>
<td>1,575</td>
</tr>
</tbody>
</table>

Source - City of Hamilton based on MPAC data, so the number of properties and the land areas differ from those shown in Bayfront Industrial Area Land Inventory dated Dec 31, 2014
Bayfront industrial area (cont’d)

Current uses : Significant assessment base

Bayfront area provides significant overall assessment and tax revenue

Notwithstanding relatively low coverage, the Bayfront is a source of significant assessment for the City. As shown at right, both the US Steel and ADM lands, along with related uses to the southeast show high tax levies reflected in the darkest shades of brown (between $100,000 to $8 million). Although at higher coverages, lower tax levies are observed along Burlington Street East and to the southwest towards West Harbour. According to the City, the Hamilton Port is assessed at roughly $25 million.

Total assessment is higher than any other business park in Hamilton

Compared to other employment areas in the City, the Bayfront provides by far the highest total assessment. At nearly $1.2 billion, total assessment in the Bayfront is significantly in excess of the assessment in other areas including business park and industrial lands. In part, this situation is due to the sheer size of the area as well as the presence of a high-value steel cluster. Lands associated with utilities or infrastructure owned for example by Hydro One or Canadian Pacific Railway do not have any associated assessment. Over time, assessment will grow in the largely greenfield areas as development proceeds.

Source - City of Hamilton based on the 2014 year end Tax Levy

<table>
<thead>
<tr>
<th>Business Park</th>
<th>Total Assessment ($Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayfront</td>
<td>$1.16</td>
</tr>
<tr>
<td>Airport Business Park</td>
<td>$0.04</td>
</tr>
<tr>
<td>Ancaster Business Park</td>
<td>$0.17</td>
</tr>
<tr>
<td>East Hamilton Industrial Area</td>
<td>$0.25</td>
</tr>
<tr>
<td>Flamborough Business Park</td>
<td>$0.08</td>
</tr>
<tr>
<td>Red Hill North</td>
<td>$0.21</td>
</tr>
<tr>
<td>Red Hill South</td>
<td>$0.18</td>
</tr>
<tr>
<td>Stoney Creek Business Park</td>
<td>$0.81</td>
</tr>
<tr>
<td>West Hamilton Innovation</td>
<td>$0.06</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$2.96</strong></td>
</tr>
</tbody>
</table>
Bayfront industrial area (cont’d)

Current uses: Per capita assessment is lower for large parcels

Per capita assessment is relatively low on the large steel producing assets

As shown to the right, within the Bayfront area assessment per square meter varies. Lower per capita assessment figures are shown for US Steel and the ADM site, as well as related uses such as the scrap yards to the southeast. Per capita assessment rises close to the margin with the downtown. Again, this is simply related to the nature of the economic base in the area, the sheer scale of the parcels under consideration and successful MPAC appeals from large manufacturers for reduced overall assessments. The figures exclude residential, agricultural, vacant, open space parcels as well as parcels with no assessment data.

Overall per capita assessment is also low compared to other areas

Although the overall assessment is high, per capita assessment is (assessed value per sq. m.) is relatively low. As shown in the table at right, the Bayfront shows an average assessment of $82 per sq. m which is lower than most other area and lower than the weighted average of all industrial areas and business parks in Hamilton. Again, this is due to the sheer size of the parcels and nature of the economic base and successful MPAC appeals for reduced assessments in the area. It does, however, combined with a relatively low building coverage data, suggest there may be the potential for a more intensive use of these lands, particularly US Steel. All of the ADM lands are in use and required for current operations.

Source: City of Hamilton Planning and Economic Development Department

<table>
<thead>
<tr>
<th>Assessment by Area</th>
<th>Total ($Billion)</th>
<th>%</th>
<th>Total Area (sm)</th>
<th>%</th>
<th>Overall per sm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport Business Park</td>
<td>$0.02</td>
<td>1%</td>
<td>151,980</td>
<td>1%</td>
<td>$109.42</td>
</tr>
<tr>
<td>Ancaster Business Park</td>
<td>$0.16</td>
<td>6%</td>
<td>1,094,968</td>
<td>4%</td>
<td>$142.14</td>
</tr>
<tr>
<td>East Hamilton Industrial Area</td>
<td>$0.24</td>
<td>9%</td>
<td>1,554,749</td>
<td>6%</td>
<td>$156.52</td>
</tr>
<tr>
<td>Flamborough Business Park</td>
<td>$0.06</td>
<td>2%</td>
<td>733,229</td>
<td>3%</td>
<td>$82.11</td>
</tr>
<tr>
<td>Red Hill North</td>
<td>$0.20</td>
<td>7%</td>
<td>1,571,189</td>
<td>6%</td>
<td>$125.32</td>
</tr>
<tr>
<td>Red Hill South</td>
<td>$0.16</td>
<td>6%</td>
<td>1,326,497</td>
<td>5%</td>
<td>$117.64</td>
</tr>
<tr>
<td>Stoney Creek Business Park</td>
<td>$0.73</td>
<td>27%</td>
<td>4,836,259</td>
<td>20%</td>
<td>$151.72</td>
</tr>
<tr>
<td>West Hamilton innovation District (WHID)</td>
<td>$0.06</td>
<td>2%</td>
<td>368,253</td>
<td>2%</td>
<td>$165.08</td>
</tr>
<tr>
<td>Total</td>
<td>$2.68</td>
<td>100%</td>
<td>24,496,120</td>
<td>100%</td>
<td>$109.32</td>
</tr>
</tbody>
</table>
Bayfront industrial area (cont’d)

Current Uses: the Bayfront area in context

Bayfront is part of an integrated system of industrial and business park lands

As shown below, the Bayfront is one of a number of employment areas, including the largely developed industrial areas along the waterfront and vacant greenfield business parks to the south. The developed industrial areas play a major role in Hamilton’s existing economic base, particularly related to the Steel Cluster and associated manufacturing. The largely vacant greenfield locations in Red Hill South and the AEGD will be the location of most new development, in particular clean industrial uses, such as Canada Bread and Maple Leaf’s $395 million state-of-the-art processing plant. Together, all of these areas form part of an integrated system of industrial and business park lands, each of which plays a distinct and important role in the City’s economy.

<table>
<thead>
<tr>
<th>Business Parks in Hamilton</th>
<th>Parcels</th>
<th>Total Area (ha)</th>
<th>Net Developable Area (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airport Business Park</td>
<td>116</td>
<td>201</td>
<td>137</td>
</tr>
<tr>
<td>Ancaster Business Park</td>
<td>148</td>
<td>231</td>
<td>109</td>
</tr>
<tr>
<td>East Hamilton Industrial Area</td>
<td>218</td>
<td>195</td>
<td>9</td>
</tr>
<tr>
<td>Flamborough Business Park</td>
<td>74</td>
<td>173</td>
<td>80</td>
</tr>
<tr>
<td>Red Hill North</td>
<td>262</td>
<td>257</td>
<td>71</td>
</tr>
<tr>
<td>Red Hill South</td>
<td>113</td>
<td>371</td>
<td>170</td>
</tr>
<tr>
<td>Stoney Creek Business Park</td>
<td>659</td>
<td>678</td>
<td>104</td>
</tr>
<tr>
<td>West Hamilton Innovation</td>
<td>30</td>
<td>46</td>
<td>9</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>1,620</strong></td>
<td><strong>2151</strong></td>
<td><strong>689</strong></td>
</tr>
<tr>
<td>Bayfront</td>
<td>1,427</td>
<td>1449</td>
<td>48</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3,047</strong></td>
<td><strong>3600</strong></td>
<td><strong>737</strong></td>
</tr>
</tbody>
</table>

Sources: Year End 2014 GIS Planning & Analysis Land Use, 2014 Building Permits, December 2014 MPAC, Ministry Approved Urban Hamilton Official Plan E-1 Schedule
**Bayfront industrial area (cont’d)**

**Infrastructure**

**Water and sewer infrastructure**

Municipal water and sewer infrastructure within the Bayfront essentially extends only as far as Burlington Street. Servicing to the large operations north of Burlington Street is via private servicing for the most part. Historically, private arrangements were made between the City and large employers in the Bayfront area to meet the servicing needs.

With many sites in public/private ownership and with underutilized or derelict industrial buildings, significant upgrades may be required from a servicing perspective to support new investments in the area. One area which may provide an advantage for the future relates to the oversized water infrastructure put in place for the steel industry. The decline in the steel industry over time has resulted in surplus water supply.

**Water**

Historically, some of the larger industries in the Bayfront have been among the largest consumers of water. As a result, capacity was built to a high standard. With a decline in the number and intensity of industries in the Bayfront, there is excess water capacity available. Based on information from the City, majority of the Bayfront's water mains are identified as "satisfactory" "good" or "excellent". Those water main lines identified as "poor" tend to be located in smaller stretches compared to the longer runs of "good" to "excellent" condition ones.

**Sewer**

Unlike the water supply infrastructure, the sewer infrastructure in the Bayfront is mainly rated "poor". Based on information provided by the City, the longest runs, such as on Burlington Street, are mostly identified as in "poor" condition, whereas the water mains in these areas are generally identified as "good" or "excellent." Only short segments within the Bayfront are rated as in "good" or "excellent" condition.
Bayfront industrial area (cont’d)

Infrastructure

Transportation network

Roads - The Bayfront area has direct access to the Queen Elizabeth Way (QEW) highway and easy access to the 400 series highways in Ontario. There are challenges in adequately maintaining the internal road network due to the constant heavy traffic generated by the Bayfront operators. Despite the challenge, the roads in the Bayfront are generally rated as “satisfactory” to “excellent.”

Rail - There are railway connections in the Bayfront to access the wider rail network. The main east-west line (north of Barton Street) is a CN line that continues east to Niagara and beyond to the US, as well as west to the GTAH and beyond. All of the rail lines throughout the Bayfront ultimately connect to the main east-west CN line allowing for regional, provincial, national and international rail connection. The Hamilton Port Authority is also currently working on a rail study.

Transit - A new GO station is under construction at James Street North. Once operational in 2015, it will provide increased service and help deliver more integrated and effective public transportation in the Greater Toronto and Hamilton Area. The new GO train station will provide an even greater connectivity to the City of Toronto, providing opportunities for a range of new mixed-use development including potentially office development in the downtown or West Harbour area.

The combination of Highway Access, Rail and Port and the pending GO Station to service the West Harbour Area is a major advantage.
Bayfront industrial area (cont’d)

Infrastructure

Transportation network (cont’d)

The established rail, road and transit network, together with the Port and its strategic location makes it an important economic asset to the City and metropolitan region, providing opportunity for businesses to access major centres in Ontario, Quebec and the USA.

Typically, freight transportation relies on modes such as shipping and rail to transport goods over longer distances where trucks carry goods for the “last mile.” Thus, the integration and close proximity of all modes of transit is a benefit to the employment area.

Only a few other employment areas have access to the level and variety of modes, and are in as close proximity to major markets as the Bayfront. From a market opportunities perspective, the combination of the City’s strategic location and convergence of road, rail, marine and highway transportation access is a significant and unique competitive advantage, particularly for the goods movement and logistics industries.
Bayfront industrial area (cont’d)

Policy direction

The Bayfront is a major employment area in both City and Provincial plans.

The overall direction for land use, including employment lands, comes from two provincial policy documents, the Provincial Policy Statement (PPS) and the Growth Plan for the Greater Golden Horseshoe. These directions are implemented by the City’s Urban and Rural Official Plans and Zoning By-laws.

Taken together, these documents bring strong attention to the projection of employment lands, including the Bayfront area, along with the City’s other employment areas. Employment and economic vitality is also considered in the context of other objectives:

- The documents focus on intensification and highlight the need to use existing infrastructure, optimize public service facilities and explore adaptive re-use opportunities before new infrastructure and public service facilities are considered.

- Redevelopment opportunities through remediation of contaminated sites is suggested to further the goals of intensification and rejuvenation.

- The importance of Bayfront’s existing rail and marine transportation systems is highlighted as a key success factor in Hamilton’s official plan.

- Recognition is given to the history, legacy and nature of the Bayfront operators and documents indicate that consideration should be given to policies related to noxious and hazardous uses and their relationship with sensitive land uses in the re-development process.

- In recognition of efficient movement of freight being critical to the economy, the Freight-Supportive Guidelines, drafted by the Ministry of Transportation of Ontario should be considered.

- With Hamilton having access to a wide range of goods movement facilities and corridors, which forms a network and contributes to making the City an ideal location for a “goods movement gateway.” These uses play a major economic role although employment densities may be low.

- The Port of Hamilton is recognized as a valued transportation facility, a significant employment area and an important link in the movement of goods to and from the City both domestically and internationally.
Bayfront industrial area (cont’d)

Policy direction

The Bayfront employment area

Reflecting overall policy direction, the zoning for the Bayfront area provides a range of industrial uses. The range includes: M1 - Research & Development Zone; M2 to M4 - Business Park Zones and M5 and M6 - Industrial Land Zones, with some parcels carrying the historic “K” District Zoning. The predominant zoning on the Bayfront is M5 - General Industrial and M6 - Light Industrial Zoning.

The M5 - General Industrial Zoning, which is the most permissive and least restrictive of the industrialzonings, allows all forms of manufacturing activity. This zone was specifically applied to the interior of the Bayfront Industrial Area to replace the existing “K” District Zoning and reflect the existing character of the Bayfront Area. This allowed opportunities for re-use and/or redevelopment on these sites. This zone is well buffered from existing residential areas by the Light Industrial (M6) Zoning, which permits a range of light industrial uses, along with a variety of transitional uses such as conference or convention center, financial establishment, hotel, medical office and medical clinic, office, personal services and restaurants. Within this zone, regulations were developed to establish a maximum building height and minimum separation distances between manufacturing uses and sensitive land uses within proximity of the employment area.

Source: Zoning By-law No.’s 05-200 and 6593
Bayfront industrial area (cont’d)

Policy direction

Zoning permits a range of industrial uses

As shown below, the current zoning permits a range of industrial uses consistent with historic development patterns, including storage yards and warehousing, light industrial uses and supporting commercial operations. This framework is in place to recognize the importance of core industrial uses as well as related commercial and service uses to the ongoing health and competitiveness of the area.

<table>
<thead>
<tr>
<th>Zone category</th>
<th>General location</th>
<th>Range of permitted uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>M5 - General Industrial Zone</td>
<td>Applies to the interior of the City’s Bayfront industrial area</td>
<td>Most permissive in types of permitted uses, including heavy manufacturing, salvage yards and warehousing, least restrictive of the zones in terms of regulations.</td>
</tr>
<tr>
<td>M6 – Light Industrial Zone</td>
<td>Applies to the transitional zone between the M5 Zone and lands zoned for residential or institutional uses.</td>
<td>Permitted uses include Light Industrial uses, but also allows for supportive commercial uses that will contribute to the re-use of existing buildings or increased compatibility between Industrial operations and adjacent neighbourhood, and employment land. zone regulations limit building height, setbacks and require landscaping and screening for outdoor storage and assembly.</td>
</tr>
</tbody>
</table>

*Source: Zoning By-law No.’s 05-200 and 6593*
The Port of Hamilton
The Port of Hamilton is a major infrastructure asset

The Port of Hamilton’s strategic location at the hub of Ontario’s Golden Horseshoe reinforces the Port’s role in the development of key metal and metal-based industries, which are at the centre of the economic base for the Hamilton area and the Province of Ontario. It is for this reason that the City has recognized the Port of Hamilton as a key economic cluster and a critical strategic partner.

A recent re-development of a 103-acre brownfield site at Pier 22 was nominated for a Canadian Urban Institute Brownfield Redevelopment Award.

Key opportunities identified for the Port include Eastport (Piers 24-27) where operations are being expanded and Pier 14/15 Gateway, which is slated to become a high-end business park.

28% of Great Lakes-St. Lawrence Seaway Cargo moves through Hamilton.

THE PORT

Its Busy: Busiest Canadian port on Great Lakes handling more than 12 million tonnes of cargo annually.

Its an Economic driver for Hamilton and Ontario: Cargo shipments contribute $5.9 billion of economic activity and 38,000 jobs in Ontario.

Its Growing: Significant investments are being made, including more than $40 million in agri-food related investment, new sustainable technologies and growth since 2008.

Its Competing and Expanding: Strategically located and new businesses want to locate close to the Port. New investments include renovations at 201 Burlington (the Brewery) and the Pier 24 80,000 sf Steelcare automated storage facility.

A global partner: The Port is a gateway to global markets with exports to Asia reaching record levels.

<table>
<thead>
<tr>
<th>Summary of Tonnages</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas</td>
<td>924,491</td>
<td>987,370</td>
<td>647,372</td>
<td>1,018,037</td>
<td>1,264,161</td>
<td>1,422,639</td>
<td>1,373,955</td>
</tr>
<tr>
<td>Domestic &amp; U.S.A.</td>
<td>10,858,165</td>
<td>10,141,321</td>
<td>7,710,751</td>
<td>10,454,794</td>
<td>8,776,049</td>
<td>8,880,551</td>
<td>8,650,463</td>
</tr>
<tr>
<td>Total Tonnnes</td>
<td>11,782,656</td>
<td>11,128,691</td>
<td>8,358,123</td>
<td>11,472,831</td>
<td>10,040,210</td>
<td>10,303,190</td>
<td>10,024,418</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summary of Vessel Arrivals</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overseas</td>
<td>112</td>
<td>91</td>
<td>52</td>
<td>96</td>
<td>108</td>
<td>125</td>
<td>117</td>
</tr>
<tr>
<td>Domestic &amp; U.S.A.</td>
<td>588</td>
<td>578</td>
<td>484</td>
<td>550</td>
<td>475</td>
<td>495</td>
<td>481</td>
</tr>
<tr>
<td>Total Tonnnes</td>
<td>700</td>
<td>669</td>
<td>536</td>
<td>646</td>
<td>583</td>
<td>620</td>
<td>598</td>
</tr>
</tbody>
</table>
Bayfront industrial area (cont’d)

The Port is a Bulk Cargo Facility

The port operations

The Hamilton Port authority operates the port and **200 hectares of industrial, commercial and recreational lands** including approximately **11,000 meters of docking facilities**. It offers complete port services handling all types of bulk, break-bulk and project cargo.

**The St. Lawrence Seaway is an important trade corridor** serving 15 major international ports and some 50 regional ports on both sides of the Canada/U.S. border. The Bayfront through the Hamilton Harbour links to the St. Lawrence Seaway, providing businesses with direct connections to transportation networks both in Ontario and the US.

**In 2012, more than 75% of the cargo volumes at the port were dominated by Steel related products followed by agriculture, aggregates, liquid and others.**

The Hamilton Port Authority

The Port Authority’s mandate is to bring business to the Port and economic development to the Region. Established in 1912, the Hamilton Harbour Commissioners (HHC), is the body charged with the responsibility for governance of the Port of Hamilton.

Source – Hamilton Port Authority
Bayfront industrial area (cont’d)

The Port can accommodate a heavier range of industry

Zoning allows for heavier uses compared to the balance of the Bayfront area

The Port of Hamilton has unique zoning for lands under its ownership as described below. The Hamilton Port Authority operates the port and 200 hectares of industrial, commercial and recreational lands. Of particular note is the presence of the heavy industrial “K” zoning, which allows for a multitude of heavy industrial, including waste and processing facilities.

<table>
<thead>
<tr>
<th>Zone Category</th>
<th>General Location</th>
<th>Range of Permitted Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;A&quot; Districts</td>
<td>This district primarily applies to lands located west of Eastport Drive, South of Pier 25 known as Windermere Basin.</td>
<td>A variety of uses both related to the natural and practical function of these lands is permitted.</td>
</tr>
<tr>
<td>&quot;D&quot; Districts Urban Protected Residential</td>
<td>Properties zoned “D” District abut the Bayfront Area but are somewhat removed from heavier industrial uses.</td>
<td>Residential uses include two family dwellings and lodging houses. The only institutional use permitted is a day nursery.</td>
</tr>
<tr>
<td>&quot;F&quot; Districts Special Waterfront District</td>
<td>Much like the &quot;K&quot; Districts, these zones are located along the waterfront, but do not permit heavy industrial uses.</td>
<td>These districts permit Waterfront and Harbour services and uses. Some examples include multi-res uses, hotels and waterfront commercial related uses (i.e. marina and boat house facilities).</td>
</tr>
<tr>
<td>&quot;J&quot; Districts Light and Limited Heavy Industry</td>
<td>There is one small portion of the subject area that has been zoned “J” District. This area also has an exception applied to it, which removes the industrial uses and permits open space, conservation and residential uses instead.</td>
<td>Multiple uses including Institutional, Residential uses (corrections residence or residence necessary for maintenance staff of any lawful principal use), Public uses, farming uses, commercial uses and a variety of industrial uses.</td>
</tr>
<tr>
<td>&quot;K&quot; Districts Heavy Industrial</td>
<td>Areas zoned ‘K’ is sporadically found along the waterfront within the Bayfront area.</td>
<td>A multitude of heavy industrial uses. Examples include textile industries, metal production and pharmaceutical production. Commercial uses include lumber yard, salvage yard, stock yard, fuel storage tank and spray paint shop. Limited institutional uses are permitted including a correctional facility and emergency medical or surgical uses.</td>
</tr>
</tbody>
</table>

Source: Zoning By-law No.’s 05-200 and 6593
Section 3
Economic outlook
Economic outlook

Economic context and growth outlook

Hamilton in the years ahead

The City of Hamilton is geographically well positioned in the Southern Ontario Mega-region with good access to the rest of Canada and the US markets through highways, the port and the airport. As per Province's growth plan forecasts, 7% of the GTAH’s population growth and 9% of the employment growth is expected to reside in the Hamilton area, which will drive the addition of significant new industrial, office and retail space.

Globally, the outlook is for the most rapid growth in the developing economies such as China, Brazil, India and Mexico, among others. The US economy continues to recover and is forecast to maintain its economic strength over the coming decades.

Ontario’s economy expected to outperform the national economy primarily due to the low exposure to the oil and gas extraction sector, resulting in increased spending and consumption, which could benefit Hamilton. Although trade patterns will continue to evolve, the US will continue to be Ontario’s largest trading partner.

Well regulated and stable financial markets with increased public and private sector capital and infrastructure investments will provide access to low-cost capital, export markets for Ontario products, and improve import and investment opportunities for Hamilton.

The Strength of the US market over the longer term is a key advantage, specifically with respect to the prospects for advanced industry and productivity growth. The export opportunity with emerging markets is significant. Given its strong base in the steel industry and growth outlook, Hamilton can play a key role in advancing productivity growth within the metropolitan area. Plans for the West Harbour, recent and pending infrastructure investments and increasing downtown renewal bode well for Hamilton in the years ahead.
Economic outlook (cont’d)

Global outlook positive

Role of United States and emerging economies continues to evolve

Short term
In the short term, the US and many other advanced economies are expected to grow fairly robustly. Europe and Japan are forecast to most modest growth, while emerging economies are expected to continue with strong rates of economic growth (at a more moderate pace than the last decade).

Medium term
In the medium term, emerging economies are expected to reduce reliance on investment and export led growth and focus on domestic consumption. Advanced economies on the other hand would consolidate government spending and limit domestic consumption, relying on exports to drive growth. The fragility of the financial systems in the Eurozone will keep it vulnerable to future disruptions. Pronounced aging of Japan’s population, offshoring of high-productivity manufacturing and the ongoing drag from high levels of public-sector debt will result in a slow economic growth in the medium term.

Long term
The United States is well positioned for long-term growth, mostly as a result of strong productivity growth. Europe emerging from recent recessions will continue to face long-term challenges. Japan is expected to be the slowest among major advanced economies, while emerging market economies will represent an increasingly critical component of the global economy in the longer term.

Hamilton is well positioned geographically with access to the US markets through the extensive highway network and access to the port and the multi-model airport and benefit from the strength of the US market in the longer term.
Emerging economies

Emerging markets increasingly on the radar

Global FDI flows have increased steadily since the 1970s, driven mainly by the evolution of manufacturing and the global supply chain. Although the United States remains our largest trading partner, **developing nations are becoming increasingly important**. Unlike a decade ago, **China and Brazil** now rank amongst the largest foreign investors in Canada and Ontario.

Based on work prepared by the Conference Board of Canada, the share of Canadian exports to the U.S. is predicted to decline from 74% in 2010 to 68% by 2025 with the share to rapidly growing developing countries, on the other hand, anticipated to increase. These conclusions are supported by recent Deloitte research which showed that, as of 2012, Canadian companies expected that over the next three years a growing share of their future customers would come from emerging markets, including Mexico and the Brazil, Russia, India and China (BRIC) countries. Many factors are driving this shift, including exchange rate movements, real GDP growth and the growing middle class in countries such as China, India and Brazil, as well as other emerging economies.

It is also important to understand that the United States is one of the most mature, competitive and sophisticated markets in the world. For many firms it can be difficult to compete and grow over the long term. In contrast, **emerging markets are often faster growing and less competitive** due to lower market maturity and lower technological sophistication. As trade barriers come down, Canadians have more options and for many firms a “US First” strategy may no longer be preferred.
Economic outlook (cont’d)

Canadian perspective

Trade and exports to perform well

Cheap oil, competitive dollar and US growth combine for short-term growth

Until recently, a high Canadian dollar, expensive oil and a still-recovering US economy were challenges for Canadian manufacturing and exports. In recent years, however, both the dollar and oil have declined to historic lows, improving the cost competitiveness of Canadian industry. With the US economic recovery now on track, the short-term outlook for trade and key export sectors is positive.

- The big economic story at the moment
  - Drop in price = US$40B in lost revenues
  - Positive effect anticipated on consumer spending and non-energy-related trade
- Bulk of exports continue to go to US
  - Lower dollar makes products more competitive
  - Loonie expected to remain under pressure for some time
- US recovery looks to be on better footing
  - Growth expected at between 2.5 and 3% to 2016
  - Technological progress and productivity growth, the big long-term issue

Hamilton is well positioned to take advantage of these opportunities because of its strong manufacturing base and connections to major Canadian and US markets and trade corridors through the 400-series highway network, access to the marine and rail transport network and the Hamilton Port.
Economic outlook (cont’d)
Productivity growth the big long term issue

Canadian perspective

Focus on productivity and the rapid growth in emerging economies

Over the next 20 years, global demand from emerging market economies will grow rapidly. Led by the Asia Pacific region, spending by the global middle class is expected to more than double to $56 trillion US by 2030. These emerging economies are expected to shift to advanced economy uses and stay high on the industrial growth curve.

Canada and the US need to find ways to benefit from these changes. They have mature manufacturing sectors and an aging population. With slower growth in the working-age population, productivity growth through increased spending in productivity-enhancing activities are the key long-term prospects for sustenance.

Canada is also currently pursuing new trade agreements that will help open and expand market opportunities abroad, including in South America, India, Japan and South Korea.

As of 2000, 95% of the Fortune Global 500 companies were headquartered in developed countries, but by 2025 nearly half of the world’s large companies (Revenues > $1 billion) are expected to be headquartered in emerging markets.

The four global forces breaking all the trends, McKinsey Global Institute

Higher productivity may mainly originate from investments in machinery and equipment, including robotics and other high-tech tools or better utilization of existing resources.

Conference Board Global Outlook, 2015

There is a need to balance eroding cost competitiveness through increased productivity. Deloitte’s research indicates Canadian companies do not recognize that they are underinvesting in productivity-enhancing activities such as research and development (R&D) and they may be missing opportunities for profitable growth.
Economic outlook (cont’d)

Ontario’s economy has shown resilience and has potential for growth

**Ontario focus**
Ontario's economy is expected to continue to transform with new challenges and opportunities. Following are some of the key themes and a discussion on the sectors that get impacted.

**Manufacturing and advanced economies**

**Focus on manufacturing** - As per the Ministry of Finance report despite recent challenges, Ontario’s manufacturing sector is already adapting to changing global economic realities. Manufacturing is expected to continue to constitute a significant part of Ontario’s economic output and employment. With low-cost manufacturing moving to low cost countries, Ontario companies with innovative technologies and highly skilled workers will have an opportunity to increase their specialization in high value-added manufacturing activities to enhance their export potential. New and potentially disruptive innovations like 3D printing and advanced robotics would provide opportunities for Ontario companies and could help sustain future economic growth in Ontario.

**Adaptation and transformation**

**Role of knowledge-based industries** - As the economy adapts and transforms, knowledge-based industries will be an increasingly important part of the provincial economy. They constitute 30% of Ontario’s GDP and employment and are found in both the advanced manufacturing (e.g., aerospace) and services (e.g., financial services) sectors.

**Transition in business services and manufacturing**

**Business and financial services sector** - Ontario continues to thrive as the leading business and financial services head-office centre of Canada. The share of employment in business services grew from 7.8 to 10.8 per cent (1993 to 2013). The future growth of business services will continue to be driven by the shift to skills and knowledge-based services. The financial services sector is a major engine of growth for the Ontario economy. Its share of economy-wide output is almost twice as large as its share of jobs, indicating its above-average productivity.

**Manufacturing and the auto sector** - Despite the shift of vehicle production to lower-cost jurisdictions such as Mexico and the southern U.S. states, the government is continuing to work with major auto assemblers to help anchor investments in Ontario. Stakeholders, including labour, are also working to address issues related to the industry’s competitiveness in Ontario. Recent agreements like the principle agreement between Canada and the European Union for a Comprehensive Economic and Trade Agreement promises to provide access to new markets for Ontario’s motor vehicles and parts producers through tariff-reduction measures, but overall based on discussions with experts and as detailed in the market soundings section, the potential seems quite limited.
Ontario’s time to lead

Ontario focus

Forecast of reduced real GDP, but per capita GDP forecast to rise

Ontario is part of an integrated global economy with strong trade and financial market links with rest of Canada and United States. With its low exposure to the oil and gas extraction sector, Ontario is expected to receive a significant boost from low oil prices over the near term. The economy is projected to grow by 2.9 per cent, even more than the national average, resulting in increased spending and consumption. The US will continue to be the major trading partner for Ontario and US’s continued economic growth will continue to fuel Ontario’s economy.

Ontario’s low exposure to oil and gas combined with continued US economic growth bodes well for future growth.
Broad growth outlook aligns with Hamilton’s key sectors

Target sectors align

The City of Hamilton’s economic development strategy (2010-2016) target future growth sectors, especially the subsectors within advanced manufacturing, clean technology and life sciences have potential to align with Bayfront’s strengths.

- Life sciences
- Clean technology
- Advanced manufacturing
- Agri-business and food processing
- ICT and digital media

Alignment with Hamilton’s Key Sectors

- It is clear that the City is becoming an increasingly attractive location for investment in life sciences. There may be an opportunity to accommodate some of the ‘heavier’ elements of the sector and other supporting uses in the Bayfront.
- Hamilton is already home to 25% of Canada’s clean-tech companies. The current base of manufacturing and existing infrastructure in the Bayfront provides an opportunity attract additional ‘green’ industry, including energy and waste.
- The advanced manufacturing sector is a significant growth opportunity for the Bayfront due to its location, existing industry clusters and transportation infrastructure.
- Brick and beam buildings located on the periphery of the Bayfront may present an opportunity to attract ICT and Digital media sector investors.
- Growth in the agri-food business and commodities in Ontario bodes very well for the Bayfront, particularly the port, which as seen a doubling in agri-food tonnage since 2008. The port now also services Europe, Asia, Africa and South America.

City outlook and role of Bayfront: Hamilton has a positive population and employment growth outlook and is well positioned in the southern Ontario mega-region with good access to the rest of Canada and the US markets through highways, the port and the airport. Manufacturing still accounts for a significant share of the regional employment base and Bayfront continues to be in a stronger position than is commonly perceived by the market.
Economic outlook (cont’d)

Hamilton can play a vital role in the future of the steel industry and advanced manufacturing

Steel is the most recycled material in North America

More steel is recycled in North America every year than paper, plastic and aluminum combined. Steel is continuously recyclable without loss of quality and steel in North America is always made with average minimum of 25 percent recycled content.

Challenges faced by the steel industry today

- Dominance of China with half of the world’s steel production and the Chinese government willing to subsidize the industry as a tool of economic policy has become one of the key issues for steel producers around the world.
- Excess capacity and low margins are the biggest threats to the industry. As per a recent report from E&Y, 300 million tonnes of steel-making capacity needs to be closed for the industry’s profit margin to reach a sustainable level.

Hamilton will need to accept the challenges of excess capacity and international competition, while working to enhance and create additional opportunities by maintaining a strong position in the legacy sectors and expanding into new sectors.

2013 Recycling Rates in North America

<table>
<thead>
<tr>
<th>Rate</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall Steel Rate</td>
<td>81%</td>
</tr>
<tr>
<td>Steel Container Rate</td>
<td>70%</td>
</tr>
<tr>
<td>Steel Automotive Rate</td>
<td>85%</td>
</tr>
<tr>
<td>Steel Appliance Rate</td>
<td>82%</td>
</tr>
<tr>
<td>Structural Steel Rate</td>
<td>98%</td>
</tr>
<tr>
<td>Steel Reinforcement Rate</td>
<td>72%</td>
</tr>
</tbody>
</table>

Source: Global steel 2014, Planning to profit from opportunity: preparing for future demand, EY
Economic outlook (cont’d)

Automotive sector outlook mixed

Short-term demand solid but threats on the horizon

In the short term, there is a strong demand forecasted by the population and employment growth forecasts. With the availability of infrastructure in place, access to skilled trades and proximity to target markets, there may be short-term opportunity for the sector at large. With Mexico and the southern United States becoming increasingly competitive, longer term opportunities are likely with more advanced applications fueled by R&D and innovation.

Industry’s centre of gravity has shifted southwards

Due to social, legal and economic reforms and manufacturers able to source tariff-free with labour that is one-tenth the cost, Mexico seems to be attracting much more in investments and has become North American auto industry’s go-to destination.

Fighting an up-hill battle

With significantly less investments coming to Canada (Only $2.3 billion (U.S.) out of the $42.3 billion (U.S.) invested in North American plants), the future looks grim. Canada’s automotive trade deficit topped $10-billion in 2014, which threatens to deepen with the closure of assembly plants.

'We have to play the game if we expect to get investment, plain and simple. “That’s the game. We may not like the game, but every single state, every single country in the world is supporting the auto industry with some sort of financial assistance.”

Dennis DesRosiers, President of DesRosiers Automotive Consultants.

Long-term strategy should be to hold on to the industry that is here and encourage a shift up the value chain for more high tech and advanced manufacturing prospects.
Section 4

Commercial real estate markets and implications for the Bayfront
Hamilton commercial real estate markets

Aggressive market expectations

Office and industrial markets forecast to exceed historic averages

Based on the Provincial growth outlook, approximately **3.5 million sf of new office** space is forecast for the Hamilton market. This outlook would nearly double the current inventory, and is significantly above the City’s historic office space absorption over the last 15 years.

It has yet to be determined exactly where this new office growth will occur, but this provides an opportunity for the Bayfront and for the City of Hamilton to develop an office strategy to attract growth. Downtown Hamilton has attracted largely public sector users, and many buildings report significant vacancy. Space users at this point prefer low cost suburban locations with abundant surface parking and highway accessibility.

Hamilton is also forecast to accommodate significant new industrial space, up to 50 million sf. In the short term, most of this demand will be accommodated on greenfield sites on the mountain and around the airport at the intersection of Highways 403 and 6. Over the longer term, Hamilton is expected to see more growth in advanced manufacturing industry, including the key sectors identified in the Economic Development Strategy.

Outlook for retail driven by population growth and shifting e-commerce platforms

Growth in retail and other population-serving activities will be driven by growth in population and is more evenly distributed than employment. One of the major issues in the retail sector is shifting e-platforms, the rise of the connected consumers and shifting store patterns. While not anticipated to accommodate significant new retail, the Bayfront could play a role in goods movement and other supporting activities.
Aggressive market expectations (cont’d)

Livable and sustainable cities spawn new industry sectors which have created a wealth of opportunities for economic and social growth.

With a diverse and skilled workforce, affordable housing and a high quality of life, it is evident that the future is positive for the City of Hamilton. The Hamilton Chamber of Commerce has projected 13,000 new jobs over the next two years; this represents a faster pace than the neighbouring communities and the provincial average. The Hamilton Port Authority has stated that the volume of foreign cargo flowing through the harbor rose 39 percent last year over 2013; this was the highest annual overseas tonnage in a decade. The construction of the James Street GO Station will further increase Hamilton’s fortunes on both the commercial and residential fronts. Within this context and the broader economic outlook, the opportunities for reinvestment and redevelopment in the Bayfront and other areas of the City are better now than they have been for nearly 30 years.

Benefits of Urban Reinvestment and Redevelopment

- Drives Urban Productivity
- Creates Employment Opportunities
- Attracts Increased Investment
- Enhances Housing Affordability
- Capitalizes on Infrastructure
Hamilton office market implications for Bayfront
Hamilton commercial real estate markets (cont’d)

Office markets

Hamilton’s office market currently encompasses some 5.2 million sf of the total 170 million sf Greater Golden Horseshoe office marketplace, or roughly 3% market share. Most of the current office space can be categorized as Class B, C or “flex” space and is typical of transitional office markets. During the 1980s, Hamilton captured some large office tenants and developments including CIBC's, and the federal government offices. However, in recent years, the downtown has witnessed a decline in quality office development and, correspondingly, jobs.

Bayfront could capture a portion of the 3.5 million sf office potential
This section identifies specific office trends within Hamilton with a focus on identifying opportunities for the Bayfront marketplace. While it is unlikely that Bayfront would capture GTAH Class A office development and space users within the short term, over the next two decades, if properly positioned, the area could capture new office and flex office developments and jobs.

This section identifies additional growth in Hamilton’s office space of some 3.5 million sf of if the city captures its expected 5% of the market share. While most of this office development is slated for the downtown and airport markets, it is reasonable that some 3 to 5% or 90,000 sf to 190,000 sf of space could be targeted towards the Bayfront. This is based on an estimate of the potential ‘brick and beam’ demand that could be accommodated in the Bayfront, along with the potential for new owner-occupied buildings, such as the existing ADM tower on Burlington street.

Flex office space likely most viable for Bayfront area
From the analysis completed herein, it is possible to capture “flex” office uses, which are typical of “brick and beam” retrofitted buildings, or newer low-rise buildings that cater toward price sensitive office users, and ideally targeted toward the new economy and technology sectors.
Hamilton’s office market encompasses 5.2 M sf of inventory

To determine the growth opportunities for Hamilton’s office market, it is important to consider the entire Greater Toronto and Hamilton marketplace. The GTAH possesses a total office inventory of 179 million sf while the Hamilton Region has a supply of just over 5.2 M sf which equates to roughly 3% of total inventory.

The Hamilton market is located within the GTAH West which has 43.8 M sf of office space, and therefore Hamilton holds 12% of the GTA West inventory. While Hamilton has traditionally been known as an industrial and manufacturing hub, the office market has stood its ground despite fierce competition from surrounding municipalities within the GTAH and Southwestern Ontario. Total Inventory is represented in the charts below:

Hamilton’s 5.2 M sf office inventory represents 3% of GTAH 170 million sf and 12% of the GTAH West’s 43.8M sf office inventory
Hamilton commercial real estate markets (cont’d)

Office – New supply and development across the GTA

The GTA West has seen 44% of all new supply over the past 15 years

Across the GTA Area, the last 15 years have seen 22.0 million sf of new development, representing average new supply of 1.5 million per year. While recent years have seen an a great deal of development in Toronto’s downtown, historically the 905 areas have enjoyed most of the activity. The GTA West, in particular, has been the most active region with 687,000 sf of new supply per year. Proximity to Toronto Pearson Airport, and to the major highways leading to US markets have made the western suburbs appealing for space users and investors. Furthermore, there is substantial vacant land and capacity within the GTA West to address short-medium term demand. The majority of new supply is likely to be in suburban business park form with 100,000 sf buildings in greenfield sites with significant parking.

<table>
<thead>
<tr>
<th>Region</th>
<th>Total new supply since 2001</th>
<th>% Share</th>
<th>Average annual new supply</th>
<th>Average annual absorption since 2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA West</td>
<td>9.6M sf</td>
<td>44%</td>
<td>687,000 sf</td>
<td>458,111 sf</td>
</tr>
<tr>
<td>GTA East</td>
<td>3.7M sf</td>
<td>17%</td>
<td>265,000 sf</td>
<td>161,238 sf</td>
</tr>
<tr>
<td>GTA North</td>
<td>1.3M sf</td>
<td>6%</td>
<td>93,000 sf</td>
<td>92,338 sf</td>
</tr>
<tr>
<td>GTA Suburbs</td>
<td>14.6M sf</td>
<td>67%</td>
<td>1.05M sf</td>
<td>550,449 sf</td>
</tr>
<tr>
<td>GTA Central</td>
<td>7.4M sf</td>
<td>33%</td>
<td>482,000 sf</td>
<td>532,289 sf</td>
</tr>
<tr>
<td>GTAH Total</td>
<td>22.0M sf</td>
<td>100%</td>
<td>1.5M sf</td>
<td>1.1M sf</td>
</tr>
</tbody>
</table>

Historically, The GTA West has dominated new supply; new development will likely occur on greenfield sites with additional demand for revitalized brick and beam product.

Source: Cushman Wakefield
The GTA West dominates the suburban market

The GTA West saw 2.3M sf of new construction enter the market in 2014, the majority in downtown Toronto. Another 5.0M sf of new space in the pipeline over the next couple of years.

There was 530,000 sf of new supply delivered within the GTA West during 2014. As a basis of comparison, the GTA East and GTA North only saw 94,000 sf and 84,000 sf of completions respectively. The momentum will continue as another 1.4M sf of new office space is expected to be delivered through Q1 2016.

However, while the downtown Hamilton office market is larger than that of Burlington, Brampton and Oakville, it has seen minimal development over the last two decades. As jobs and industry left Hamilton, demand for the new office development declined. Workers began to migrate to other areas of the GTA, which led developers and investors to focus on municipalities that featured easy transit access and closer proximity to Toronto. Mississauga, Brampton and Oakville were able to provide shovel-ready greenfield lands that were suitable for the suburban business park projects developers desired.

Hamilton has seen minimal office development in recent years as the private sector has been reluctant to invest significant capital into the downtown area.
Hamilton commercial real estate markets (cont’d)

Office – The GTAH west market in context

Successful nodes linked to provision of infrastructure; arrival of the GO Train provides Hamilton with a significant opportunity

The opportunity for new office in Hamilton will be greatly assisted by the hourly service for the downtown GO station and new construction of the James Street GO Station. Transit access and established infrastructure is a common characteristic of most successful suburban office nodes throughout the GTA. As an example, the GTAH West includes the highly successful nodes of Meadowvale and the Airport Corporate Centre. These nodes feature transit connectivity along with proximity to Highway 401, 410 and 427. A recent JLL research report found that premiere organizations are becoming more willing to pay for access to transit as it provides them with a competitive advantage when trying to attract and retain talent, especially in congested urban areas.. The recent PWC building in Oakville and KPMG in Vaughan are two examples of the growing attraction of transit supportive office locations within the GTAH.

GTA West Comparative Market Analytics Q1 2015

<table>
<thead>
<tr>
<th>Nodes</th>
<th>Total Inventory (sf)</th>
<th>% of Total</th>
<th>Vacancy Rate</th>
<th>SF Available</th>
<th>Net Rent ($/SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton</td>
<td>5,206,095</td>
<td>11.9%</td>
<td>11.8%</td>
<td>614,319</td>
<td>13.85</td>
</tr>
<tr>
<td>Burlington</td>
<td>3,168,997</td>
<td>7.2%</td>
<td>18.8%</td>
<td>596,158</td>
<td>14.99</td>
</tr>
<tr>
<td>Oakville</td>
<td>3,176,249</td>
<td>7.2%</td>
<td>8.4%</td>
<td>266,790</td>
<td>17.17</td>
</tr>
<tr>
<td>Meadowvale</td>
<td>5,749,065</td>
<td>13.1%</td>
<td>9.8%</td>
<td>564,641</td>
<td>17.50</td>
</tr>
<tr>
<td>Brampton</td>
<td>2,298,511</td>
<td>5.3%</td>
<td>11.9%</td>
<td>272,505</td>
<td>16.91</td>
</tr>
<tr>
<td>Mississauga City Centre</td>
<td>3,518,788</td>
<td>8.0%</td>
<td>14.3%</td>
<td>503,143</td>
<td>16.99</td>
</tr>
<tr>
<td>Other West Suburbs</td>
<td>20,663,441</td>
<td>47.2%</td>
<td>12.7%</td>
<td>2,627,531</td>
<td>N/A</td>
</tr>
<tr>
<td>Total</td>
<td>43,781,146</td>
<td>100%</td>
<td>12.50%</td>
<td>5,445,087</td>
<td>29.70</td>
</tr>
</tbody>
</table>

Source: Q1 2015 Cushman Wakefield Office Marketbeat Report

As workers and tenants continue to demand transit connectivity, the completion of the James Street GO station has the potential to act as a catalyst for further office development moving forward.
Older office buildings show significant vacancy while urban revitalization begins in Hamilton

Overall, the GTAH office market has shifted in recent years with tenants demanding new, LEED certified space. This ‘flight to quality’ is affecting all communities, including older office towers in Hamilton which feature significant vacancy. While traditional Class ‘A’ office development has not occurred in recent years in Hamilton, the transformation of older buildings offers potential.

Hamilton has recently seen a number of older buildings that have been retrofitted for office use. Upon completion, these spaces will be distinct due to their high ceilings, abundant natural light and exposed structural frames. Research has suggested that ‘brick and beam’ demand reflects changing demographics of the workplace, in particular for creative industries that currently account for a significant share of employment in Downtown Hamilton.

Summary of Hamilton significant leasing opportunities

<table>
<thead>
<tr>
<th>Address</th>
<th>Class</th>
<th>Year Built</th>
<th>SF Available</th>
<th>Gross Rent</th>
</tr>
</thead>
<tbody>
<tr>
<td>35 King Street East</td>
<td>B</td>
<td>1890</td>
<td>51,530</td>
<td>$18.50/sf</td>
</tr>
<tr>
<td>100 King Street West</td>
<td>A</td>
<td>1973</td>
<td>153,000</td>
<td>$27.00/sf</td>
</tr>
<tr>
<td>120 King Street West</td>
<td>B</td>
<td>1983</td>
<td>99,841</td>
<td>$27.00/sf</td>
</tr>
<tr>
<td>1 King Street West</td>
<td>A</td>
<td>1987</td>
<td>34,300</td>
<td>$25.50/sf</td>
</tr>
<tr>
<td>211 Pritchard Road</td>
<td>B</td>
<td>2015</td>
<td>41,000</td>
<td>$22.40/sf</td>
</tr>
</tbody>
</table>
Hamilton commercial real estate markets (cont’d)

Office – Future growth

Growth forecast of 3.5M sf through 2041 is aggressive given the historic precedent

The Province of Ontario has forecast future growth across the GTA/H with positive growth in population and employment expected to translate into 70 million sf of additional office space through to 2041. These projections translate into an estimated annual requirement of 2.33m sf of new office space, although this demand is expected to be tempered further by changing workplace formats and agility and resulting in a reduction in overall space occupancy standards. Accordingly, Hamilton is expected to see 5% of development which results in 3.5M of total supply or 116,667 sf per annum. A rough calculation indicates that historically Hamilton has seen 82,440 sf of the new supply per year.

Rough Feasibility Approximation for Hamilton

Base Scenario
The Growth Forecast indicates that Hamilton will receive 3.5M sf by 2041. This results in 116,667 sf per annum

Scenario A
Hamilton receives 90% of projected inventory. This would result in 3.15M sf by 2041 or 105,000 sf per annum

Scenario B
Hamilton receives 110% of projected inventory. This would result in 3.85M sf by 2041 or 128,333 sf per annum.

Scenario Analysis - Cumulative Office Supply

Source: Deloitte Real Estate based on Greater Golden Horseshoe Growth Forecasts to 2041, Hemson Consulting Ltd. November 2012
Hamilton commercial real estate markets (cont’d)

Office – Bayfront market opportunities

The transformation of the Bayfront: What’s old is new again

“A lot of people would prefer not to be sitting in some commoditized cubicle in some commoditized building that rises to 80 stories.”

- Michael Emory, CEO of Allied REIT

Hamilton has recently seen a number of old, derelict buildings converted to office, residential and other uses. This trend is consistent across many North American cities that have witnessed the restoration of light-industrial structures that can act as a catalyst for neighbourhood transformation. As an example, the communities of Liberty Village and King West in Toronto were both once bustling industrial areas that have now transitioned into successful mixed use areas.

Furthermore, a recent Colliers research report found that 17% of the office space leased in the GTA during H2 2014 was to Technology and Media companies; this represented the largest proportion of any sector. These companies have clustered to Liberty Village and King West where they benefit from many of the amenities found in the downtown Toronto node without paying financial core rent; rents in Liberty Village/King West are 21% lower than that of the financial core. This area has captured millennials and creative professional opportunities.

With a number of ‘creative’ organizations and entrepreneurs inquiring about office space in Hamilton, a significant opportunity lies at the Bayfront and indeed downtown. Development of brick and beam buildings would likely be attractive to cost-sensitive businesses who are searching for distinct and character spaces. The gatekeepers within these organizations tend to be millennials who have adopted ‘the workplace of the future”: space that encourages collaboration and creativity. Given the nature of the building stock, these trends could present a key opportunity.

Furthermore, if the industrial sector continues to see growth, an opportunity lies in the development of purpose build and flex office. These companies will likely require reasonably priced space in close proximity to their operations at the Bayfront.
The Bayfront could see 90,000 sf to 190,000 sf of office supply through 2041

As discussed previously, the City-wide outlook for office is approximately 3.5 million square feet. Most of this space is likely to be accommodated on greenfield sites with superior highway access, particularly around the airport. Consistent with recent trends in the City, most of the demand for office in the Bayfront is likely to be in brick and beam type buildings, similar to the pattern seen in the City of Toronto, or potentially as part of new non-competitive space such as the ADM offices on Burlington street or flex industrial.

In the City of Toronto, it is estimated that approximately 4% of the overall office inventory is accommodated in brick and beam type space. Recognizing the evolving urban contexts, this is considered a reasonable future outlook for Hamilton. The Bayfront may be able to compete for a share of future growth given the current building inventory. Taking into account the competitive context and potential for some non-competitive or flex industrial space to come to market in the Bayfront, a range between 3 to 5% of the future office demand is considered reasonable as an estimate of the total opportunity. There is also the potential that Hamilton’s office market could either out- or under-perform Provincial expectations, illustrated below as the base case, conservative and aggressive scenarios.

<table>
<thead>
<tr>
<th></th>
<th>Bayfront Option A @ 4% (sf)</th>
<th>Bayfront Option B @ 5% (sf)</th>
<th>Bayfront Option C @ 3% (sf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scenario A (Base Case)</td>
<td>140,000</td>
<td>175,000</td>
<td>105,000</td>
</tr>
<tr>
<td>Scenario B (Conservative)</td>
<td>126,000</td>
<td>157,500</td>
<td>94,500</td>
</tr>
<tr>
<td>Scenario C (Aggressive)</td>
<td>154,000</td>
<td>192,500</td>
<td>115,500</td>
</tr>
</tbody>
</table>

Given the opportunity for flex office and brick and beam space at the Bayfront, it seems reasonable to assume that much of the future development will occur within office lands or in retrofitted warehouse facilities. Accordingly, we have assumed that between 3 to 5% of total supply will go to the Bayfront, thus resulting in 94,500 sf to 192,500 sf of new office supply.
Hamilton industrial markets
Implications for Bayfront
Hamilton's industrial market features 38.8 M sf of leased inventory along with an abundance of corporate owned assets

In order to determine the growth opportunities for Hamilton's industrial market going forward, an evaluation of the GTAH market is required. The GTAH possesses a total industrial inventory of 765 million sf while the City of Hamilton has a supply of 38.8 M sf or 5% of the total inventory. The Hamilton market is located within the GTAH West, which has 355.7 M sf of industrial space. The GTAH West dominates the marketplace with over 45% of the total inventory; two biggest nodes within the region are Mississauga and Brampton. It is worth noting that the City of Hamilton features a significant amount of 'owned' inventory that is not captured in these figures. The impact of this supply will be addressed later in this section.
The GTA West received 71% of the total new supply over the past five years

Across the Greater Toronto Area, the last 20 years have seen just under 142 million sf of new development, representing average new supply of just over 7 million per year, peaking during the late 1980s at 18.5 million per year. Over the past five years, development of industrial space has slowed with just over 16M of new supply coming to the market.

Historically, the GTA West has been the most active area as its proximity to intermodals and the 400 series of highways has made it a favorite for developers, investors and tenants alike. New product has largely been in the form of distribution centers and multi-unit facilities. Of note, there is an increasing amount of old product being recycled into new development as a flight to quality rules the marketplace.

<table>
<thead>
<tr>
<th>Region</th>
<th>Total New Supply (Past 5 Years)</th>
<th>% Share</th>
<th>Average Annual New Supply (Past 5 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>GTA West</td>
<td>11.4M sf</td>
<td>71%</td>
<td>2.29M sf</td>
</tr>
<tr>
<td>GTA East</td>
<td>0.5M sf</td>
<td>3%</td>
<td>102,655 sf</td>
</tr>
<tr>
<td>GTA North</td>
<td>3.9M sf</td>
<td>25%</td>
<td>770,293 sf</td>
</tr>
<tr>
<td>GTA Suburbs</td>
<td>15.8M sf</td>
<td>98%</td>
<td>3.16M sf</td>
</tr>
<tr>
<td>GTA Central</td>
<td>0.3M sf</td>
<td>2%</td>
<td>64,872 sf</td>
</tr>
<tr>
<td>GTAH Total</td>
<td>16.1M sf</td>
<td>100%</td>
<td>3.22 M sf</td>
</tr>
</tbody>
</table>

Historically, The GTA West has dominated new supply; new development will likely occur on greenfield sites with additional demand for revitalized brick and beam product.
As the economic recovery continues to improve, Hamilton should see further industrial investment and development.

**Industrial development in Hamilton rebounds as YTD building permits up 77%**

The GTAH saw 5.3M sf of new space come into the market in 2014 with another 6.0M sf of new space in the pipeline. It should come as no surprise that the **GTAH West received 90% of all the new development**. Supply chain management has heavily influenced businesses who have focused their efforts on **cutting transportation costs** while maintaining **operational flexibility**. Accordingly, the GTA West has prospered as it features industrial nodes that heavily emphasize proximity to intermodal networks and existing infrastructure.

The City of Hamilton saw **no new eased supply come to market** in 2014. The economic recovery, however, appears to have bolstered industrial investment in the City as March YTD permits are up 77% when compared to the three-year average. If this pace is to continue through the end of the year, Hamilton would see just over $157M in industrial permits; this would represent the second highest figure ever recorded.

Source: Q1 2015 Cushman Wakefield Industrial Marketbeat Report

**As the economic recovery continues to improve, Hamilton should see further industrial investment and development.**
Hamilton commercial real estate markets (cont’d)

Industrial – The GTAH west market in context

Hamilton’s vacancy rate is the lowest in the GTAH West; new supply required to satisfy demand

The Hamilton industrial market currently has an extremely low vacancy rate of 1.7% compared with a ‘more healthy range of between 4% and 5% for the other markets shown below. While the availability problem in Hamilton’s industrial sector can partially be explained by the large number of buildings that have been demolished in recent years, the construction of new buildings is required to sustain a vibrant industrial real estate market and healthy economy that attracts and retains business. Ensuring that the planned greenfield supply in the Red Hill area and around the AEGD comes to market soon will be critical. As these areas come on stream and development momentum builds, the overall level of investment activity will rise and help increase demand for the Bayfront.

<table>
<thead>
<tr>
<th>Nodes</th>
<th>Total Inventory (sf)</th>
<th>% of Total</th>
<th>Vacancy Rate</th>
<th>Total Available (sf)</th>
<th>Net Rent ($/SF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamilton</td>
<td>38,787,765</td>
<td>10.9%</td>
<td>1.7%</td>
<td>678,237</td>
<td>4.83</td>
</tr>
<tr>
<td>Brampton</td>
<td>84,830,698</td>
<td>23.8%</td>
<td>4.8%</td>
<td>4,064,876</td>
<td>4.85</td>
</tr>
<tr>
<td>Burlington</td>
<td>18,531,749</td>
<td>5.2%</td>
<td>5.5%</td>
<td>1,011,267</td>
<td>4.40</td>
</tr>
<tr>
<td>Caledon</td>
<td>12,153,298</td>
<td>3.4%</td>
<td>14.0%</td>
<td>1,702,654</td>
<td>6.13</td>
</tr>
<tr>
<td>Milton</td>
<td>14,222,268</td>
<td>4.0%</td>
<td>7.2%</td>
<td>1,038,801</td>
<td>6.03</td>
</tr>
<tr>
<td>Mississauga</td>
<td>160,166,066</td>
<td>45.0%</td>
<td>4.3%</td>
<td>7,764,915</td>
<td>5.53</td>
</tr>
<tr>
<td>Oakville</td>
<td>27,048,440</td>
<td>7.6%</td>
<td>2.1%</td>
<td>874,948</td>
<td>6.29</td>
</tr>
<tr>
<td>Total</td>
<td>355,740,284</td>
<td>100%</td>
<td>4.4%</td>
<td>17,135,698</td>
<td>5.44</td>
</tr>
</tbody>
</table>

Source: Q1 2015 Cushman Wakefield Industrial Marketbeat Report

Part of unlocking the potential for the Bayfront is accelerating new business investment in the community overall. Ensuring that the planned greenfield land supply comes to market as soon as possible is critical.
Hamilton commercial real estate markets (cont’d)

Industrial – Land supply

Lack of developable land available at the Bayfront; greenfield development to occur at Red Hill and the Airport

The bulk of Hamilton’s vacant land supply will be provided by the Red Hill Business Park and AEGD. These two locations will satisfy most market demand for standard industrial development

As the graph to the right shows, despite Bayfront’s massive size, there is a limited supply of vacant parcels. Currently, the land is occupied by a range of industrial-type uses, most notably the steel industry and related uses. Established infrastructure and direct port access will help to continue to attract investment by existing users; however lack of vacant land and older building stock remain a challenge.

While greenfield development will occur elsewhere, the abandoned and derelict buildings at the Bayfront must be rejuvenated if the city plans to exploit this significant opportunity
The future for the GTAH looks positive with **480 million sf of additional industrial space** anticipated through to 2041. Of this total, Hamilton is expected to accommodate 50M sf, which translates into **1.67M sf of new supply annually**. Compared to the recent past, this demand **forecast significantly exceeds historic patterns**. Given **land supply constraints** in competing communities to the east, particularly Halton and Southern Peel Regions, there is the potential that **Hamilton could exceed expectations** for new development. To the right shows a rough assessment of the total space forecast under a pessimistic (Scenario A) or optimistic (Scenario B) outlook.

### 2011 to 2041 – Industrial space and growth forecast

![Graph showing industrial space and growth forecast](image)

### Scenario Analysis - Cumulative Industrial Supply

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Description</th>
<th>Cumulative Supply (M sf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Case</td>
<td>The Growth Forecast indicates that Hamilton will receive 50M sf by 2041. This would result in an annual new supply figure of 1.67M sf for Hamilton.</td>
<td></td>
</tr>
<tr>
<td>Scenario A</td>
<td>Hamilton receives 90% of projected inventory. This would result in 45M sf by 2041 or 1.5M sf per annum.</td>
<td></td>
</tr>
<tr>
<td>Scenario B</td>
<td>Hamilton receives 110% of projected inventory. This would result in 55M sf by 2041 or 1.83M sf per annum.</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Deloitte Real Estate based on Greater Golden Horseshoe Growth Forecasts to 2041, Hemson Consulting Ltd. November 2012*
The Bayfront could see 1.4 to 10.5 million sf of industrial supply through 2041

The potential for industrial development in the Bayfront Area is dependent on the future of the U.S. Steel site. In approximately 800 acres in size, the parcel represents a significant development opportunity. Using a 30% site coverage factor, this land area could theoretically accommodate nearly 10.5 million square feet of potential new space. Three alternative scenarios illustrate the potential range of future outcomes.

**Scenario A** (status quo) is for no significant redevelopment to occur on the US Steel site, with remaining seven large vacant parcels elsewhere in Bayfront building out over the period to 2041. At a total land area of 103.8 acres and 30% site coverage, this translates into 1.4 million square feet.

**Scenario B** (optimistic) is for the development of the parcels previously contemplated for sale or lease on the US Steel Site. At a total land area of approximately 94.4 acres and 30% site coverage, this translates into 1.2 million square feet of potential new space and would be in addition to the Scenario A status quo figures.

**Scenario C** (best case) is for a significant redevelopment of the US Steel site @ 800 acres (including the coking facilities and finishing line) up to potentially 10.5 million square feet of new space. Since this assumes 100% of the site becoming available, it should be considered to be at the top of the range and a best case scenario over the very long term.

<table>
<thead>
<tr>
<th>Bayfront Scenario Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nodes</strong></td>
</tr>
<tr>
<td>Land Area Developed (acres)</td>
</tr>
<tr>
<td>Coverage</td>
</tr>
<tr>
<td>New Inventory Added (sf)</td>
</tr>
</tbody>
</table>

The overall potential for new industrial development in the Bayfront is dependent largely up on the future of the US Steel site. Without US Steel, the potential could range between 1.4 and 2.6 million sf. A ‘best case’ scenario involving the complete redevelopment of the US Steel site could result in 10.5 million sf of new industrial space.
From steel to advanced manufacturing; The Bayfront can once again emerge as Hamilton’s innovation hub

“Part of what’s exciting is that, traditionally, manufacturing meant big factories, all kinds of smoke and fire, and a lot of heavy capital; but because of advances in technology, part of the opportunity is now to make the tools that are needed for production and prototypes are now democratized. They are in the hands of anybody who’s got a good idea.” - President Barack Obama on Pittsburgh’s Revitalization

Hamilton’s active targeting of advanced industry and new economy uses hold tremendous potential for the Bayfront. Leading national and multinational businesses seek facilities that promote innovation and creativity while still offering the infrastructure and logistics of traditional industrial hubs. Accordingly, Hamilton possesses a unique opportunity to leverage the Bayfront’s location and new capital equipment to attract and retain premiere firms. The local commercial real estate community are already strategically marketing and leasing available space, and generating interest in advanced industry investment.

There are many market opportunities for the Bayfront arising from the broader growth outlook and the areas locational and steel industry cluster advantages.

A number of corporate entities have also heavily invested in Hamilton’s future

“The skill set we’ve developed in the steel industry is what made Hamilton famous. We see a bright future because of that, we have deep roots in Hamilton and we’re not leaving.” - Walter Koppelaar, President of the Walters Group
Hamilton retail markets
Implications for Bayfront
Hamilton commercial real estate markets

Strong retail demand to continue

Hamilton forecast to accommodate over 6 million sf to 2031

As shown to the right, national retail sales have been growing steadily since the 2008 recession, driven by strong population and employment growth and low interest rates. Future demand is anticipated to be strong, particularly for the major metropolitan areas in Canada, including the GTHA and the City of Hamilton. As shown below, by 2031 the total demand for new commercial space is over 6.6 million sf.

<table>
<thead>
<tr>
<th>Summary Retail Space Demand to 2031 (Square Feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Category</td>
</tr>
<tr>
<td>Food Stores</td>
</tr>
<tr>
<td>Department Store Type Stores</td>
</tr>
<tr>
<td>Other Retail</td>
</tr>
<tr>
<td>Total Retail</td>
</tr>
<tr>
<td>Service Category</td>
</tr>
<tr>
<td>Total Retail/Service</td>
</tr>
</tbody>
</table>

Source: Hamilton Commercial Strategy Study (PED07055) Except from Module 2 Hamilton Commercial Strategy

In addition to retail, the service category includes eating and drinking establishments, personal services, finance, insurance and real estate. Since the space forecast is driven largely by population growth, the actual demand for new retail space and pace of development will occur in-step with population growth over time. According to the City’s commercial strategy, based on the amount of land that had already been approved for commercial development plus applications underway when the study was completed and since the City only has the potential to direct a relatively small portion, about one-third of the future unbuilt space, to support the urban structure and community development objectives in the new official plan.
Urban structure approach defines market function

The Urban Hamilton Official Plan (UHOP) seeks to accommodate a range of “population-serving” jobs in the community that include personal services, retail and service employment, and institutional uses such as the education, health care, and government sectors. Key policies specifically related to retail and service uses include:

• From an urban structure perspective, planning for the Downtown as the focus for commercial and office development;
• Development of mixed use areas including higher-density residential in association with related commercial and institutional uses;
• Provision of retail and service commercial uses within the new urban residential communities; and
• Identification of a hierarchy of retail and commercial uses for the urban residential community that address City and region-wide demand, as well as planning policy objectives for the Downtown;

These policies reflect the overarching principle of the UHOP to develop as a sustainable community, with the integration of retail and service commercial uses into the neighbourhood fabric as opposed to provided within the designated employment areas. Generally, large format retail uses are not permitted in the designated employment areas.

Based on the UHOP, the City is planning for the overall retail space demand to be accommodated within a series of nodes and corridors, and in smaller scale mixed use developments. These are the light–purple corridors and red / maroon nodes in central Hamilton, as well as within the medium and low density residential areas. Retail within the designated employment areas is generally limited to convenience and accessory use.
Bayfront retail potential constrained

Additional retail permissions would require significant change

The retail planning policies for the City seek to direct future demand into a series of nodes and corridors, in order to support the planned function of these areas and to protect employment areas for industrial-type uses. This approach is to some degree at odds with the prevailing pattern of suburban retail market demand which is for the development of large format retail centres at major highway interchanges. Notwithstanding this disconnect, within the current planning context, the opportunity for retail in the Bayfront is limited.

- New Provincial planning policies (specifically the Growth Plan) generally seek to minimize the conversion of employment lands to major retail use while simultaneously encouraging such uses to locate within compact, transit-supportive mixed-use communities.
- The UHOP is consistent with the Growth Plan and was prepared through a lengthy and comprehensive process including extensive landowner and stakeholder consultation.
- As a result, providing additional retail permissions for the Bayfront would not be a minor change. It could have significant implications for the planned commercial structure of the community. It might also bring into question conformity with Regional and Provincial planning objectives as well as the development expectations of the current landowners within the area.

In light of the above, it is unlikely that the City or Province would support the provision of additional retail uses within the area in the short term. In the short term, retail in the Bayfront will likely be limited to ancillary uses since other retail uses are currently directed to specific locations in the community order to support the City’s planned urban structure. However, as the nature of retail continues to evolve, particularly with respect to the rise of e-commerce and evolution of the path to purchase, new opportunities may arise. Future trends in distribution, including the growing challenge of the ‘last mile’ (taking deliveries in dense and congested urban areas) as well as the continued evolution of on-line retailing may present opportunities for distribution facilities or other supporting activities in the Bayfront.
Section 5
Market soundings
Market soundings

Stakeholder consultations

Market sounding process and list of objectives

A market sounding process was undertaken to complement and confirm the results of the market analysis presented in Section 4. There were three main groupings for market sounding process:

- Industry (steel and auto)
- Redevelopment authorities (Pittsburgh, East Liberty, Chicago and Toronto)
- Other (Including review of waterfront redevelopment case studies from around the world and conversations with internal stakeholders)

The objective was to obtain views and insights regarding the process that the respective stakeholders had used to re-vitalize and rejuvenate declining assets. The market sounding process also sought to gain a better understanding of their individual challenges and opportunities which may be of relevance to the Hamilton Bayfront’s industrial renewal.

Interviews were conducted with a selection of industry leaders, redevelopment authorities and other internal stakeholders to understand their perspectives and identify opportunities that would help the City align its redevelopment process.
# Market soundings (cont’d)

## Stakeholder consultations

### Participants

Provided below is a list of the companies that participated in the market sounding process between April and July 2015. Of the total number invited, most accepted the opportunity to participate and to provide their opinions. For those that declined a variety of reasons were given including overall level of interest, scheduling conflicts or consistency with current investment plans.

<table>
<thead>
<tr>
<th>Industry and Other</th>
<th>Participants</th>
<th>Contact (Tel / Email)</th>
<th>Deloitte Representatives</th>
<th>Interview - Date / Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 City of Pittsburg (Urban Redevelopment Authority)</td>
<td>Robert Rubinstein, Director, Economic Development (URA)</td>
<td>412.255.6663</td>
<td>Sheila Botting, Antony Lorius, Sameer Jain</td>
<td>April 28&lt;sup&gt;th&lt;/sup&gt; 2015</td>
</tr>
<tr>
<td>2 Waterfront Toronto</td>
<td>John Campbell, President &amp; CEO at Toronto Waterfront Corporation</td>
<td>(416) 214-1344</td>
<td>Sheila Botting</td>
<td>April 28&lt;sup&gt;th&lt;/sup&gt; 2015</td>
</tr>
</tbody>
</table>
| 3 MEDTE / MRI | Joe Veloce: Manager, Aerospace and Materials Unit  
Tom Bedford: Senior Sector Advisor, Aerospace and Materials Unit | 416-325-6767  
416-314-0710 | Antony Lorius | May 1<sup>st</sup> 2015 |
| 4 US Steel | Michael A. McQuade, President & General Manager  
U. S. Steel Canada Inc. | Phone (905) 577 - 4436  
MAMcQuade@USS.com | Sheila Botting, Antony Lorius, Sameer Jain | May 26<sup>th</sup>, 2015 |
| 5 ArcelorMittal Dofasco | Tony Valeri, Vice President, Corporate Affairs | (905) 548-7200 x 6452  
tony.valeri@arcelormittal.com | Antony Lorius, Sameer Jain | May 28<sup>th</sup>, 2015 |
## Stakeholder Consultations

### Participants (cont’d)

<table>
<thead>
<tr>
<th>Industry and Other</th>
<th>Participants</th>
<th>Contact (Tel / Email)</th>
<th>Deloitte Representatives</th>
<th>Interview - Date / Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 City of Hamilton</td>
<td>Economic Development Staff</td>
<td>Multiple professionals</td>
<td>Antony Lorius</td>
<td>April 16th 2015</td>
</tr>
<tr>
<td>7 Deloitte</td>
<td>Internal discussions with Subject Matters Experts</td>
<td>Multiple professionals</td>
<td>Antony Lorius</td>
<td>April 23rd 2015</td>
</tr>
<tr>
<td>8 Auto Sector</td>
<td>Denis Desrosiers</td>
<td></td>
<td>Antony Lorius</td>
<td>April 21st 2015</td>
</tr>
<tr>
<td>9 Colliers</td>
<td>Sydney Hamber</td>
<td>(905) 333 8849</td>
<td>Antony Lorius</td>
<td>June 25th 2015</td>
</tr>
</tbody>
</table>
Market soundings (cont’d)

Summary findings & key themes

Process

Arising out of the study were a number of key findings and themes. These are summarized below with the red, green and yellow “traffic lights” indicating the general level of optimism or concern with the key issues. The consensus view is that the Bayfront Area will stay in employment use for the near future, particularly with respect to steel and related uses. The potential for residential was generally seen as very limited, with uncertainty over the level of contamination identified as a significant risk and constraint to redevelopment. The need for a catalyst to kick start new investment was also identified as important.

<table>
<thead>
<tr>
<th>Bayfront Re-development Opportunity</th>
<th>Steel</th>
<th>Automotive</th>
<th>Agency</th>
</tr>
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<tbody>
<tr>
<td>Residential development opportunity</td>
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<tr>
<td>Industrial development opportunity</td>
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<td>Office development opportunity</td>
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<tr>
<td>Waterfront Retail development opportunity</td>
<td></td>
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<td></td>
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<tr>
<td>Provincial Employment Land Aspirations</td>
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<tr>
<td>Investment Appetite</td>
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<tr>
<td>Future of Steel Industry</td>
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<td></td>
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<tr>
<td>Perception of level of contamination</td>
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<tr>
<td>Development Risk</td>
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<td></td>
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<tr>
<td>Need for a catalyst to kick start re-development</td>
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</tr>
</tbody>
</table>
Market soundings (cont’d)
Industry (Steel)

Need to transition into more advanced industry…

Key findings

General perception / Market demand

- **The Steel industry is Performing Well.** Notwithstanding the US Steel situation, Arcelor Mittal Dofasco (AMD) and related steel companies are performing well. AMD in particular is growing its employment and has made significant recent investments in re-positioning their core assets to remain competitive in the future. Unlike many other centers of steel production in North America, which have declined, Hamilton’s steel sector has shown resiliency and an ability to adapt to shifting competitive environments.

- **There is a regional aspect and the Focus is North America:** Current operations, which are mostly process oriented, are not scalable and require a high degree of quality control. Accordingly the production of these assets have limited potential to be outsourced to developing economics such as China, where over-capacity is an issue. The focus of the Hamilton steel sector from a manufacturing perspective is focused on Ontario and North America.

- **Key future sectors important for the Steel industry:** Auto and packaging seem to dominate the current target sectors.

- **Needed Greater efficiency in operations:** Unlike popular belief, 2/3rd of the cost in steel manufacturing is on raw materials rather than labour costs. Accordingly cheaper access to raw materials, rather than lower labour costs, would have a greater bearing in making the operations more efficient. With a more efficient and accessible rail service, a lot of the raw materials currently being brought in from Quebec by road could be brought in more economically.

- **The environment / lands are probably less contaminated than perceived:** The air and land contamination are closely monitored by the Province and they would be the best source of information. The remediation requirements and costs should also be viewed in light of the re-purposing options.

- **Huge skills shortage:** There seems to be huge gap in skillset for operations, professional and skilled trade categories. Companies like Arcelor have been running one of the largest apprenticeship program in the Province. Coupled with the changing demographics and majority of the current employees retiring in the next 3 to 5 years, this problem is only expected to get worse.
Market soundings (cont’d)

Industry (Steel)

Need to transition into more advanced industry…

Key findings

Recent market changes

• **Industry trends require a shift in the makeup of the Steel Industry:** Innovation in steel manufacturing has resulted in lighter and stronger steel components. The impact has been reduced consumption and resulting in over-capacity of steel manufacturing of more than 400 million tons around the world.

• **Key focus sectors:** Auto, oil and the construction industry have a significant impact on the demand for steel. Future downturns in Auto and construction industry and future increase in oil prices are expected to weigh on steel demand and pricing in the future. Use of steel in the Energy sector is a growing market for the future.

Looking forward

• **The Bayfront Industrial core needs to be preserved:** The Bayfront industrial core and the complex network of utilities (including transport infrastructure like the rail lines, industrial and city water access, electricity, steam capacity, sewerage and natural gas capacity) are valuable assets and need to be preserved to maximize value of these employment lands.

• **Intensification would help augment existing employment base:** Given the relatively low lot coverages in the area, there is an opportunity to make more efficient use of the existing land and building supply. Identified locations include potentially the US Steel site depending on the outcome of current proceedings, and the Burlington Street corridor.

• **Significant land use changes may not be advisable:** Major land use changes on the Bayfront would result in loss of valuable employment lands. Also putting residential adjacent to other active employment lands would be inappropriate.

• **Manufacturing and Logistics Focus:** Given Hamilton’s location within the GGH, access to the port, airport and the road network it seems to be an obvious center where manufacturing and logistics based operations could grow. The key impediment to accommodating this growth is the current land supply, which although perceived to be underutilized is still in use and performing an economic function. Making sites available to accommodate new users needs to be a priority.
Market soundings (cont’d)

Industry (Auto)

Short term demand is solid, but threats on the horizon…

Key findings

General perception / market demand

• **Short-term demand for vehicles is very good to 2020**: Primarily driven by consumer growth estimate between 2 to 3 million units. There may be some soft spots, but there seems no major short-term threat.

• **Long-term – Ontario Auto sector is at risk**: In the longer term, there seems a significant downside risk to the Ontario auto sector. Essentially heading towards a Mexican US south centric industry from a manufacturing perspective.

Recent market changes

• **Competition**: The industry is becoming very cost competitive; The markets are generally moving south with a focus on the movement of the parts sector. There has been a lot of activity in terms of companies locating in southern US. With these locations offering a long-term value proposition, making a case for retaining auto production and manufacturing keeps becoming more and more challenging.

Looking forward

• **Long-term strategy**: Will likely be to retain the industry that is in Ontario and encourage shift up the value chain. A case for attracting investments in new greenfield plants seems unrealistic given the recent shifts in production to Mexico and the southern Untied States. Over the very long term, to the extent that the Steel cluster is tied to the automotive industry, there may be a need to adjust long-term strategies to diversify into other sectors. Many of the major steel producers, including Arcelor, have already begun to diversify their production to adapt to the shifting competitive environment.
Market soundings (cont’d)

Redevelopment authorities

It takes time… know the asset and have a clear vision in place

Key findings

Timing is key… be prepared

Re-development and remediation of brownfield sites takes longer than greenfield sites. Based on input from multiple stakeholders, the need to initiate the process early was highlighted. In some examples the re-development authorities waited 10 years after the closure of the steel mill and it has taken them another 25 years to be where they are now and the process is still not complete. Hamilton can benefit from a proactive approach.

Economic restructuring through a staged re-development process

Economic re-structuring was the key focus and environmental remediation was highlighted as one of the first of many steps. Stakeholders stressed that uncertainty over the level of contamination on the various assets was a key issue. Some followed a structured liability release, which allowed for the owners of the property whether or not responsible for the contamination, to achieve one of three levels of risk-based cleanup: continued industrial use, an interim re-use or the eventual highest level of use. The first two require a much lower level of remediation than the eventual highest level of re-use. This results in the actual time and cost taken for remediation to be much less than what is usually perceived. Much more time could then be spent on community engagement, building stakeholder consensus on how, what and where redevelopment could be done.

Finding the economic assets and the job leaders of the region

The need to look at the economic engines (which was no longer manufacturing) and where the employment growth was coming from was identified. In the case of Pittsburg it was a burgeoning medical service economy, a strong university (led by Carnegie Mellon) who were developing research that led into creating new companies / businesses. The job leaders identified were in the innovation, technology, telecomm, computer robotics and high performance manufacturing and research sectors. The City has the opportunity to leverage its existing innovation infrastructure, including Universities, Technical Colleges and other assets, such as the McMaster West Hamilton Innovation District (WHIID) to encourage these types of uses in the Bayfront.
City needs to have skin in the game...

Key findings

Role of state programs

Discussions with the URA (Pittsburgh) highlighted the role and need of state programs to help re-skill the employment base with the desired skill sets required in the future employment sectors. With the decline in the need for traditional skillsets, there may be potential for re-skilling the existing employment base or ensuring the future employment bases have the opportunity to be part of the future supply base.

Shared development risk

Some re-development authorities even got the banks to lend on properties given the environmental risk, with negotiations and accepting shared risk of the overall developments going south.

Demonstrating local willingness to invest and capital funding

- Based on input from the stakeholders, it was imperative to show local willingness to invest. This resulted in availability of TIFF’s for real estate development. Foregoing a portion from future taxes helped unlock value in these sites that would otherwise lie fallow. Showing local commitment helped leverage other public sector money, as well as attract private sector funding.

- Other examples of capital funding included floating of bonds like the Pittsburgh Development Fund created to advance large scale real estate and infrastructure projects. Many other major sources of funding have significantly diminished in the last 5 years, but today the fund is still active with three times the size originally conceived.

Maintaining site control

- Stakeholders identified the need for establishing and maintaining site control through acquisitions or other mechanisms. This helped in providing freedom and flexibility in rezoning and the ownership benefit from the uplift in value, particularly river land and brownfield sites.
Redevelopment which were more connected with the surroundings provided greater off-site benefits

Key findings

Benchmarking success

Stakeholder consultations revealed that sites that offered opportunities for reconnecting a brownfield back into the neighbourhood provided much more off-site value and benefits than isolated re-developments. Pittsburgh was one example where re-development of isolated parcels provided much less off-site value compared to other mixed use developments, which were much more connected, offered transit, equity, historic preservation and sustainability. Part of the vision for revitalizing the Pittsburg downtown was accordingly connecting it to the water. Some of these links already exist, specifically with West Harbour and the Downtown.

Remediation and development feasibility

- Many redevelopment sites are remediated to the highest standards with residential uses, but it is a time consuming process. Most brownfields have hot spots, so letting the ecology and environmental condition help guide the planning on how and where the site should be developed, helps build alternative options like a parking garage, or green space as other uses would not permitted.

- In some consultations accommodating different uses including light industrial and R&D while ensuring sensitive uses are not mixed to help with the financial feasibility of the overall re-purposing of the sites.

The need to be independent

Most consultations identified the need to be independent from local governance, to ensure the priorities are not changed every time there is a new election, especially because the redevelopment processes take a long time even decades to materialize.
Section 6

Brownfield redevelopment, case studies and lessons learned
Introduction to brownfield redevelopment
Brownfield redevelopment

Introduction

Brownfield sites are undeveloped or previously developed properties that may be contaminated. They are usually, but not exclusively, former industrial or commercial properties that may be underutilized, derelict or vacant. *(Provincial Policy Statement, 2005)*

Brownfields vary depending on the local municipal context, however they could include:
- Abandoned gasoline / service stations
- Former landfill sites
- Former industrial sites (e.g. foundry, paper mill)
- Former commercial sites (e.g. feed mills, junkyards, automotive repair shops)

**Role of municipalities**

Municipalities encourage brownfield redevelopment through a variety of mediums including local planning legislation such as Official Plans and Community Improvement Plans (CIPs), or directly through the planning application decisions they make.

**Key Benefits for Municipalities**
- Creation and / or retention of employment opportunities
- Increased capability for public investment through increased tax revenue base
- Improvement of community environment through revitalization of neighbourhoods
- Achievement of planning goals such as reduction of urban sprawl
- Increased competitiveness in attracting inward investment
- Enhanced environmental quality, health and safety
Trends & issues facing brownfield sites

Why brownfield development should be pursued

Encouraging new investment in the Bayfront is important

While much of the City’s new industrial business investment will be occurring in the planned greenfield business parks, efforts to promote new investment in the Bayfront should also be pursued. There are a number of reasons why brownfield development should be encouraged, including reinvestment and redevelopment in the Bayfront, including the creation of new job opportunities, increased assessment and tax revenue, making more efficient use of existing resources and, especially in the case of the most visible areas, improving the appearance and overall market appeal of the area.

Economic Benefits of Brownfield Redevelopment

- **Creation & retention of employment opportunities**: e.g. native employer expands beyond existing capacity but could be re-located on brownfield site within same area.
- **Increased tax revenues**: where brownfield lands lie idle, tax receipts are reduced as vacant properties are taxed at a reduced rate. Successful development will increase these receipts, with some studies indicating that this can in some cases even result in an increase in property values within the wider area.
- **Utilizing existing infrastructure**: sites are often located in strategic core areas, near transportation or utility networks that would be costly to replicate on new un-serviced sites.
- **Deteriorating brownfield properties often become ‘eye-sores’**: this can then trigger the downward spiral of a neighbourhood as its appeal reduces to local business, leading to rising vacancy and further loss of tax revenues.
- **Increased competitiveness**: where brownfield sites are actively developed, land is more efficiently utilized and reduces the need for additional infrastructure and by extension reduces the tax burden on business, better enabling population centres to secure inward investment.
Trends & issues facing brownfield sites (cont’d)

Why brownfield development should be pursued

Developing brownfield sites is not without its challenges…

We have established why there is a need for development of brownfield sites; however, while they have many benefits not least of which is an established infrastructure already in place, they are intrinsically more challenging proposition than an undeveloped greenfield location.

Access to capital & limited access to insurance

While there are some parties including an increasing number of Real Estate Investment Trusts (REIT’s) that are looking at this sector of the market, there remains a reluctance in many lenders to become involved with brownfield projects.

This reluctance stems from the capital intensive nature of these types of projects at the initial stage, where clean-up costs can sometimes substantially exceed initial estimates. This issue is compounded by an inability in many cases to obtain robust insurance protection in the event of the unforeseen, although this latter point is not a major factor.

Regulatory liability risk

Concerns can arise that the currently involved parties could potentially become liable for contamination caused by a sites original use, when the original user has long since disappeared from the scene. Protection from this sort of liability is limited and this unpredictability as to both extent and scale of liability will deter many participants.

This concerns all parties in a project, i.e. both prospective investors/developers, but also existing landowners who could potentially sell the property, but do not want to risk extending their liability should a purchaser seek to change the land use at a future date.

Regulatory delays

Contaminated sites and how they are dealt with is addressed within municipal, provincial and federal processes and do not always hold consistent views, with some municipalities assessing that provincially required risk assessments are inadequate in some cases, imposing additional requirements on developers.

There is also a tendency to apply universal criteria across all projects, which may differ substantially in scope. As a result, guidance can be somewhat confused and inconsistent, leading to regulatory delays which can have significant impacts on both timescales and the cost of the whole development process.
Trends & issues facing Brownfield sites (cont’d)

Recent redevelopment initiatives

Brownfield initiatives in Canada

While advice and guidelines can be inconsistent as we have discussed, Canada has been proactive concerning introducing specific initiatives to promote brownfield development. Examples of such initiatives are applied at various levels of government but include:

Establishment of the Green Municipal Fund by the federal government, administered in partnership with the Federation of Canadian Municipalities

Introduction of legislation by Ontario and Quebec specifically directed at promoting brownfield redevelopment by addressing key barriers to redevelopment

Establishment of the highly successful Revi-Sols funding incentive program in Quebec, for brownfield redevelopment.

Municipal government success stories in developing and delivering brownfield redevelopment initiatives and forging community partnerships involving governments and the private sector

City of Hamilton, Ontario created the Environmental Remediation & Site Enhancement Plan (ERASE)

The above provides some examples of what is being done; however, we have considered these in more detail within Section 2, which focuses on the role of both public and private sector participants in the brownfield site development process.
Trends & issues facing Brownfield sites (cont’d)

Importance of municipalities in Brownfield development

Municipalities: A catalyst for change

Typical brownfield projects involve the redevelopment of vacant or derelict industrial sites to new urban uses, typically with a mix of residential and retail uses. The redevelopment of old industrial parcels to continued industrial use is rare, except for some highly accessible distribution locations within the central GTA, particularly around the airport in Mississauga and Brampton. This situation exists because the economics of brownfield redevelopment favours residential and retail uses in nearly every urban circumstance.

In most cases then, the developer will have purchased or agreed to purchase the brownfield site; however the municipality will often act as a facilitator to progress the development. Planning the re-purposing a site prior to remediation may ensure the site is remediated to meet the future use without financial risk.

Planning Policy

Although not in all cases, many examples of brownfield development will require a change of use and may even require a rezoning application to be made.

Facilitating Approvals

Recognizing planning policy may form a large part of any successful project, the municipality has a vital role in interpreting this policy, deviating from it where necessary and acting as liaison/proving support for the developer in dealing with the policy at higher levels of government.

Financial Incentives

Brownfield projects tend to be capital intensive at the beginning, with often a substantial proportion of the total development cost allocated to clean-up costs, prior to development beginning. Particularly in cases where the proposed resulting development is either of low value (e.g. public amenity buildings such as an arts centre) or is located in a non-core market (e.g. business centre office space for start-up companies within a rural/semi-rural market), then the clean-up costs may prove prohibitive to progress without external funding.
Case Studies
Brownfield redevelopment

Lessons learned can be learned from all projects

Key themes arise from most successful brownfield redevelopment projects

The vast majority of brownfield redevelopment projects involve a mix of residential and retail uses, with very limited office and continued industrial redevelopment. Although many of the case studies that follow may not be directly relevant to the Bayfront, there are nevertheless some important lessons to be learned from the examples that follow. Understanding the nature of most brownfield redevelopments is also important for determining what might be possible in the Bayfront.

Public / stakeholder participation / community engagement

The need for broad public and stakeholder participation has been cited in almost every large scale brownfield re-development initiative. This participation ranges from extensive consultation exercises through to creating opportunities for people to visit the area and to start thinking about the transformation, so that they have their say / skin in the renewal process. Chicago was a prime example where the City participated with US Steel in the proposal to remodel 700 acres of land with a projected investment of over $4 billion.

Large scale urban transformation through vision and master planning

The development of a master plan and having a vision for the re-purposing helped not only frame the remodeling of individual land parcels or assets, but brought people on board with common goals and targets to be achieved.

Innovative programs and investing in regional businesses

Case studies such as Pittsburgh presented an ideal example where innovative programs like the Mud to Parks program resulted in mutual benefit for all parties involved.

Investing in regional businesses resulted in increased employment opportunities.

Government facilitation and shared risk through government funding and incentives

Many redevelopment projects benefitted and progressed with either direct funding or with incentives like TIFF’s to overcome development and financial feasibility constraints. This would be vital given, the Bayfront sites are estimated to cost 14% to 34% more to develop compared to greenfield sites.

Site control is key

Establishing site control is a key aspect of the most successful projects. When lands are in municipal ownership, there is an element of control over the timing and types of use, and therefore alignment with City’s vision and plan for the area. The notion of site control is of particular relevance to the Bayfront, given the pattern of land use and the economics of redevelopment.
Case studies

Pittsburgh’s urban transformation… from a bleak industrial town to 2007’s “most livable city in the US

Pittsburgh was an American urban nightmare

30 years ago the city was characterized with air pollution, dirty rivers, plummeting employment and massive out-migration.

Pittsburgh transformed into an urban model

Among other achievements the revival of this city’s riverfronts resulted in a city with clean air, an attractive downtown and a promising cultural, arts and technology sector. Instead of coal and steel, the City’s new bases were advanced manufacturing, finance and business, life sciences, energy, healthcare and information and communications.

...President Obama’s recognition of the City as a model for a world in economic crisis is vindication of something we’ve known all along.

Caitlan Smith

If Detroit is a symbol of urban demise and hopelessness, then Pittsburgh is a metaphor for how cities can and do recover. Twice in its history, Pittsburgh has faced the threat of ruin and twice it has made what many experts consider a remarkable comeback.

Valerie Chow Bush
Case studies (cont’d)

Pittsburgh… a story of giving birth to renewed industries that are creating the jobs of the future

Notable Re-developments

Southside Works
Redevelopment of a former industrial site (Jones and Laughlin steel works, which produced almost every steel product including pipes for the oil industry) into an urbanist design office housing companies like American Eagle and MAYA Design.

The Waterfront
A former US Steel plant site transformed into a retail neighbourhood with big box stores, movie theatre and restaurants, including an open air mall.

Pittsburg Technology Centre
Industrial sites since 1849, with contaminants like ferrous cyanide and tar from smelting copper and making steel were transformed into glass and steel buildings.

Carnegie Melon Research Institute and the University of Pittsburg Centre for Biotechnology & Bioengineering
With leading research in carbon capture and cleaner-burn coal research at Carnegie Melon, Pittsburgh became the center for commercial Nuclear Energy. Focus on wind and solar green building was cemented by the Pittsburg Convention Centre, becoming the largest green building in US in 2003.

Andy Warhol Museum
The transformation of a steel supply warehouse into the Andy Warhol Museum.
Case studies (cont’d)
Making Pittsburgh new… by keeping it old

Historic preservation, an effective tool for community re-vitalization

The City was pressured into re-configuring its urban renewal plan to include a renovation strategy pioneered by Ziegler, an English professor at Carnegie Melon and architectural historian Jamie Van Trump. Emphasis was put on uniqueness and goodness of the neighbourhoods, to save buildings as a significant housing and cultural resource for the City as opposed to the local urban re-development authority focusing on demolishing run-down neighbourhoods and removing the decay.

Key success factors

- Public / stakeholder participation
- Government facilitation of employment opportunities and funding
- Large scale urban transformation through the development of a masterplan
- Acknowledging that freeing up of open space for public use, would result in overall increase in property valuations in the area

Implications for Hamilton

Revitalization of Pittsburgh presents an excellent example, portions of which could be applicable to Hamilton. Due to the stark similarities in terms of its industrial past, Hamilton can similarly transform with a focus on clean technology and advanced manufacturing industries, creating jobs of the future.

Shaken by the collapse of the steel industry, which had provided them with an unshakable sense of identity for more than a century, Pittsburghers hunkered down and built a new economy based on services, medicine, education, and technology. In the process, they transformed their community from one driven by quantity of production into one devoted to quality of life.

National Geographic, December 1991
Case studies (cont’d)

East Liberty’s success… failure… and then renewed success…

East Liberty (1950's) – Pennsylvania’s third largest shopping district with more than 500 local businesses.

East Liberty began to develop as a commercial area in 1843, when the ambitious lawyer Thomas Mellon, made his true fortune renting the land near East Liberty and using the proceeds to finance Pittsburgh's nascent industries. Thomas Mellon worked to make East Liberty a transportation hub, by convincing some of Pittsburgh's first trolley lines to pass through East Liberty.

In 1868, the City of Pittsburgh annexed what is now East Liberty. Thanks to its favorable location and Mellon's guiding hand, East Liberty became a thriving commercial center in the following years. Merchants served many of Pittsburgh's industrial millionaires, who settled in nearby Shadyside and Point Breeze. Professionals in Highland Park and Friendship and laborers in Bloomfield and Garfield also shopped in East Liberty. By 1950, the area (now often called 'Sliberty) was a successful urban marketplace and commercial center, supported by a mix of merchants, professionals and labourers alike.

Key reasons for failure of East Liberty (1960’s)

Urban renewal resulted in East Liberty becoming disconnected and not serving the majority of nearby Pittsburghers. From 575 businesses in 1959, just 98 remained by 1979, resulting in an urban ghetto and a blighted neighbourhood.

Routing cars away from Penn Avenue, the URA's new street plan, resulted in driving people and businesses away from the neighbourhood's commercial center. The housing authority’s massive housing complexes quickly developed a reputation as centers for crime, driving commerce away from East Liberty.
Case studies (cont’d)

East Liberty’s success… failure… and then renewed success…

Renewed growth of East Liberty (1980’s to 2010)

• Regained its status as a market destination for shoppers.
• A number of important developments occurred, spearheaded by ELDI (East Liberty Development, Inc.), a nonprofit community development corporation, but they were only moderately successful.
• Rationale for the future success was attributed to
  – Removing the failed shopping center called East Liberty Station on Penn Avenue and returning thoroughfare to its traditional use as a two-way street.
  – City using tax increment financing to lure two national retailers to the neighbourhood (Between 1996 and 2006), and working with ELDI attract new “big box” retailers to East Liberty.
  – Removing 20-storey housing projects (2005 to 2009) that visually barricaded and surrounded the neighbourhood.

Key success factors

- Community participation through ELDI
- Reestablished its status as a market destination for shoppers
- Government funding through tax increment financing
- Large scale urban transformation (Demolition of housing projects, reconfiguration of the transportation access)

Implications for Hamilton

Many lessons can be learned from why East Liberty was successful, reasons for its failure and what steps resulted in its renewed success. Some of these learnings could be benefit Bayfront revitalization.
Case studies (cont’d)

Chicago’s future developments potentially transforming the landscape

Chicago lakeside development

Originally the site of U.S. Steel’s South Works mill, Lakeside’s brownfield industrial past is slowly transitioning from steel mill to innovative mill. The 700 acre lakefront re-development masterplan is about creating innovative solutions for living, working and recreating in the 21st Century. The project will pan out over 30 years and is being developed by McCaffery Interests, partnering with US Steel at a cost of over $4 Billion. The city also approved the Lakefront Protection Ordinance and RDA and TIF Financing ($98M) for Phase 1.

The project includes redevelopment of the former U.S. Steel Southworks Plant, which includes zoning for:

- 13,575 single-family dwellings and high-rise units
- 17,500 sf of retail
- 125 acres of open space/parks with bike paths
- 1,500-slip boat marina and
- a new high school

New relocated South Lake Shore Drive extending the iconic Lake Shore Drive through the length of the site. Chicago Velo Campus, which has plans to develop a permanent indoor world class, 250 meter velodrome, that is designed to become the anchor of a vibrant sport and health district focused on the spirit of cycling and athletics.
Case studies (cont’d)

Chicago’s future developments potentially transforming the landscape

**The Lucas museum**
This $400 million project, designed by Beijing-based MAD Architects, Chicago-based Studio Gang and VOA Associates is expected to be delivered by 2018. With some people considering it detrimental to the lakefront landscape, the project’s future is ultimately dependent on the political will to get it done.

**Northwestern university’s Ryan Fieldhouse**
The project would provide great views of Lake Michigan and is being developed by the University at more than $220 million. Still in the permitting process, the university has yet to release a date for completion. The facility will encompass three basketball courts, a running track, weights and fitness workout areas, locker rooms, portable seating for 1,000 and sports medicine facilities in addition to renovation of the existing soccer, field hockey and lacrosse fields.
Case studies (cont’d)

Chicago’s future developments potentially transforming the landscape

**Mud-to-Parks program:** As a member of the program Chicago Lakeside Development repurposes nutrient-rich river mud as a base soil for Lakeside’s future green spaces and lakefront parks.

**LEED certification:** The Chicago Lakeside Development has been designated as a LEED-ND certified community with large open spaces, excellent connectivity, access to public transportation / bike paths and pedestrian-friendly neighbourhoods. As a LEED-ND pilot project, the plan for Lakeside signifies new and innovative approaches to urban growth on Chicago’s south side.

**New business investment:** The Chicago Lakeside Development has been investing in regional businesses, to ensure provision of sustainable goods or services for the future of the community. One such example was the Chicago Lakeside Development award, a $50,000 grant for clean technology innovation, presented to SmarterShade. The company developed a patented film-based daylight management platform, which had application both as a retrofit and as a new-construction solution, resulting in energy efficiency gains of up to 40 percent.

**Community Involvement**
Chicago Lakeside Development’s regular engagement with community organizations and city officials has resulted in benefiting all stakeholders and the City equally.

**Key success factors**

- Community involvement through regular engagement with community organizations and City officials.
- Innovative programs like Mud-to-Parks and Investing in regional businesses.
- Government funding through TIF’s and focus on energy efficient design practices.
- Large scale urban transformation, master planning and approval of Lakefront Protection Ordinance.

**Implications for Hamilton**
Chicago Lakeside development, presents innovative solutions for living, working and recreating. Focus on LEED-ND certification, providing sustainable goods and use of clean technology is especially relevant for Hamilton. What is also quite unique and important is the 700 acre lakefront re-development partnering with US Steel.
B Bethlehem Pennsylvania’s transformation

A fifth of City’s industrial taxable land base was reduced to unused brownfields and later transformed into a center for art and recreation

In 1995 when Bethlehem Steel was shut down, the city saw a fifth of its industrial taxable land become unused brownfields. The area called the SteelStacks was transformed into state-of-the-art studios for a public television station, a visual arts center with an art-house cinema and concert pavilion. Today, its population is above that of its 1950’s heyday, it has the highest home prices, lowest percentage of citizens on welfare, highest per-capita income in the region and second-best-educated residents.

Key success factors

- Efforts of a regional economic development commission
- Support of senior levels of government and generous state and federal support.
- A clear vision
- Willingness to be creative
Case studies (cont’d)

Waterfront Toronto

Built on former industrial sites, these new mixed-use neighbourhoods are expected to deliver on a very different downtown, sustainable urban living.

Given the size and scope of this undertaking, Waterfront Toronto has divided the area into several key project areas to facilitate planning and construction. Project areas include East Bayfront and West Don Lands the first two new waterfront communities that are already underway. Planning for two other project areas, the Lower Don Lands and the Port Lands, is also well underway. The 400-hectare Port Lands resulted from decades of infilling on what was once the largest wetland on the Great Lakes. Lower Don Lands is the first part of the Port Lands to be developed (125-hectare) featuring innovative mixed-use communities around the Keating Channel and the newly naturalized mouth of the Don River.
Recent developments

**Corus Quay** - Corus Entertainment's future Toronto headquarters which is a LEED Gold certified 8 storey commercial office tower located on a 2.5 acre (10,000 m²) Toronto waterfront site. It is a collaboration between the Toronto Waterfront Revitalization Corporation and the Toronto Economic Development Corporation. **Underpass Park**, which was the 18th public space built or revitalized by Waterfront Toronto since 2005. **Sugar Beach**, which was transformed from a surface parking lot into Toronto’s second urban beach. **Sherbourne Common**, which is the first park in Toronto that includes storm-water treatment facility. **Corktown Common**, a park built in the West Don Lands on remediated industrial lands, which acts as a major flood protection landform while offering recreation for the residents.

Significant investments and huge economic benefits

The redevelopment of the waterfront is expected to take $35 billion in investments, with much of it expected to come from the private sector. The overall development will take 25 years to complete, creating approximately 40,000 new residences and 40,000 new jobs.

Between 2001 and March 2010, work on the waterfront had already generated approximately 9,700 full-time years of employment and contributed $1.9 billion to the Canadian economy.

Key success factors

- Support and collaboration of all levels of government including the City of Toronto, the Province and the Federal government.
- Large scale urban transformation, master planning with investment in creating public open spaces.
- Willingness to be creative

Implications for Hamilton

xxxxx
## Brownfield redevelopment

Urban revitalization and industrial case studies

### Pittsburgh, East Liberty and Chicago

Following are some of the case studies that were reviewed. There were many examples of employment use to a mixed-use, including retail, residential and recreational uses, but hardly any distinct examples where the employment lands were retained as such with a repositioning of some of the land uses to match the changes in the industry sectors and demographics. Details on specific examples are included in Appendix B.

<table>
<thead>
<tr>
<th>New Development</th>
<th>Description</th>
<th>Significance</th>
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<tbody>
<tr>
<td>Pittsburgh’s riverfront re-development, Pennsylvania</td>
<td>An urban transformation from a bleak industrial town to 2007’s “most livable city in US”. Restoration of the contaminated river front lands, formerly used for producing almost every steel product including pipes for the oil industry.</td>
<td>• Community participation and cleanup of contaminated sites. • Employment creation – both during construction and permanent through the different land uses. • Increased overall assessment and tax revenue from the properties due to creation of public open space.</td>
</tr>
<tr>
<td>Renewal of the East Liberty Neighbourhood</td>
<td>Success, failure and then renewed success of the east liberty neighbourhood through restoration of key assets.</td>
<td>• Revival through removal of failed establishments and returning to original uses of assets, which were key for the neighbourhood's original success. • City used tax increment financing to attract new investments in the area.</td>
</tr>
<tr>
<td>Chicago’s Lakeside Redevelopment</td>
<td>700 acre lakefront re-development masterplan including proposals for Lucas Museum, Northwestern University’s Ryan Fieldhouse and redevelopment of the former U.S. Steel Southworks Plant.</td>
<td>• Partnering with US Steel at a cost of over $4 Billion • Introduction of innovative programs like Mud to Parks and investing in regional businesses. • Government funding through TIF’s and focus on energy efficient design practices. • Community involvement and large scale urban transformation.</td>
</tr>
<tr>
<td>Transformation of Bethlehem Steel</td>
<td>Transformation of the Steel Stacks (Bethlehem Steel plant) into a center for art and recreation.</td>
<td>• Efforts of a regional economic development commission • Support of senior levels of government / Generous state and federal support. • A clear vision and a willingness to be creative</td>
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## Brownfield redevelopment (cont’d)

### Urban revitalization and industrial case studies

<table>
<thead>
<tr>
<th>New Development</th>
<th>Area</th>
<th>Significance</th>
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<tbody>
<tr>
<td>Mixed Use</td>
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<tr>
<td>Waterfront Toronto</td>
<td>800 hectares (1,977 acres)</td>
<td>• Largest urban redevelopment project currently underway in North America, and one of the largest waterfront revitalization efforts ever undertaken in the world.</td>
</tr>
</tbody>
</table>
| Battery Park City, NY                  | 37 hectares (92 acres) | • Battery Park City is a planned community at the southwestern tip of Lower Manhattan. The land it stands on was created on the Hudson River using the dirt and rocks excavated during the construction of the World Trade Center.  
• Private capital has financed most of the development, including the $200 million for landfill and $4 billion for development. |
| Swansea Waterfront, Wales              | 40 hectares (98 acres) | • Redevelopment of lands acquired from Associated British Ports, with the master planning exercise creating 4000 jobs and providing over 2000 new residential properties. |
| Darlington Harbour, Sydney, Australia  | 42 hectares (103 acres) | • The old Sega World precinct at Darling Harbour transformed and redeveloped into a C$540.74-million commercial office and leisure space. |
| Mixed Use                              |                       |                                                                                                                                             |
| Glasgow Waterfront, Scotland           | 52 hectares (128 acres) | • A mixed-use development of more than 2,500 new homes along with new business, retail and leisure areas have been constructed along three kilometers of waterfront. |
| Mixed Use                              |                       |                                                                                                                                             |
| South Waterfront, Portland, Oregon, U.S. | 52 hectares (128 acres) | • A successful public/private partnership helped create the newest neighbourhood in Portland. The ongoing project provides residents and visitors with sophisticated urban living in a relaxing and inspiring natural setting along the Willamette River. |
| Tourism                              |                       |                                                                                                                                             |
| Inner Harbour, Baltimore US            | 97 hectares (239 acres) | • Transformation from one of the major seaports in the United States since the 1700s to Baltimore’s cultural center in the 1970s and now home to many tourist attractions and hosting the waterfront festival. |
| Open space                             |                       |                                                                                                                                             |
| Singapore Gardens by the Bay, Singapore | 101 hectares (250 acres) | • The Gardens will create ambience and a quality living environment from which Singapore’s downtown rises. The National Parks Board of Singapore is the lead agency developing the project. Phase 1 opened in 2011 at a cost of about C$680 million. |
## Brownfield redevelopment (cont’d)

### Urban revitalization and industrial case studies

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<tr>
<th>New Development</th>
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<tr>
<td>Retail and Entertainment&lt;br&gt;Canary Warf, London, England&lt;br&gt;Canary Wharf has a retail, as well as healthcare and leisure facilities focus with extensive arts and events programming. It began development in 1987, and was jointly funded by Olympia &amp; York and the London Docklands Development Corporation. Leading international companies enjoy the high-quality buildings, facilities and infrastructure within London’s newest business district.</td>
<td>110 hectares (272 acres)</td>
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<tr>
<td>V&amp;A Waterfront, Cape Town, South Africa&lt;br&gt;South Africa’s most visited destination, offering indoor shopping, entertainment venues and more than 80 restaurants. Owned by a consortium of investors with local and international shareholding.</td>
<td>123 hectares (304 acres)</td>
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<tr>
<td>Retail and Entertainment&lt;br&gt;Hafen City, Hamburg, Germany&lt;br&gt;HafenCity, developed at a cost of more than C$9.5 billion, is a massive, exclusive residence and office real-estate development including a mix of offices, hotels, shops, residences and science and educational facilities.</td>
<td>157 hectares (388 acres)</td>
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<tr>
<td>Retail and Entertainment&lt;br&gt;Edinburgh Waterfront, Edinburgh, Scotland&lt;br&gt;Costing about C$1.56 billion and extending along 3.2 kilometers of the shoreline, the Edinburgh Waterfront is one of the most significant waterfront regeneration projects in Europe with hotel, office, retail and residential uses.</td>
<td>182 hectares (450 acres)</td>
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<tr>
<td>Retail and Residential&lt;br&gt;Minato Mirai 21 (MM21), Yokohama, Japan&lt;br&gt;Since its inception in 1981, MM21 has transformed Yokohama’s waterfront by redeveloping abandoned dockyards and breathing new life into piers that had fallen into disuse. MM21, developed through fresh land reclamation and costed C$1.52 billion, transforming Yokohama from a low-rise city to Japan’s most important high-rise cluster.</td>
<td>186 hectares (459 acres)</td>
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<tr>
<td>Retail and Entertainment&lt;br&gt;San Pedro Waterfront Project, Los Angeles, U.S.&lt;br&gt;This project proposed connecting the San Pedro community with the waterfront, enhancing services around the Port of Los Angeles. Improvements proposed were a 14 km of continuous promenade along the water’s edge, new plazas, 10.8 hectares (27 acres) of new parks, landscaping between the Port’s waterfront attractions and three new harbours.</td>
<td>400 hectares (988 acres)</td>
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<tr>
<td>Retail and Entertainment&lt;br&gt;Dublin Docks, Dublin Ireland&lt;br&gt;The project included phases of mixed-use property development, involving local people in its planning, and by fostering and investing in educational and other social interventions under development since 1997 and there are plans for ongoing implementation.</td>
<td>520 hectares (1,285 acres)</td>
<td></td>
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</table>
Lessons learned
Lessons learned

Public / stakeholder participation / community engagement

The need for broad public and stakeholder participation has been cited in almost every large scale brownfield re-development initiative. This participation ranges from extensive consultation exercises through to creating opportunities for people to visit the area and to start thinking about the transformation, so that they have their say / skin in the renewal process. Chicago was a prime example where the City participated with US Steel in the proposal to remodel 700 acres of land with a projected investment of over $4 billion.

Large scale urban transformation through master planning and creation of public open space

The development of a master plan and having a vision for the re-purposing helped not only frame the remodeling of individual land parcels or assets, but brought people on board with common goals and targets to be achieved.

Innovative programs and investing in regional businesses

Case studies like Pittsburgh presented an ideal example where innovative programs like the Mud to Parks program resulted in mutual benefit for all parties involved.

- Investing in regional businesses resulted in increased employment opportunities.

Government facilitation and shared risk through government funding and incentives

- Many redevelopment projects benefitted and progressed with either direct funding or with incentives like TIFF’s to overcome development and financial feasibility constraints. This would be vital given, the Bayfront sites are estimated to cost 14% to 34% more to develop compared to greenfield sites.

Site control is key

- Establishing site controls was one of the key aspects of most re-developments. Pennsylvania case studies tied the development approvals on specific sites to what was needed to bring the parcel in alignment with the overall master planning.

Re-connecting the lands to the neighbourhood

- In many case studies the need to re-connect the brownfield lands to the surrounding uses was highlighted. Impact of projects where the re-connection could be established was much more significant than stand-alone remediation projects.
Section 7

Opportunities, challenges and strategic directions
Opportunities, constraints and strategic directions

Context for the strategic directions and opportunities

Given Hamilton’s strategic location, improving transportation infrastructure and the Province’s aggressive growth outlook for the Region, the Hamilton real estate market is entering into a period of tremendous growth and change. The consensus view is for a rapidly growing cultural and economic role Hamilton would play in broader region. With a diminishing potential for high quality new industrial sites in GTA West, a reflection of the current Provincial policy, the Bayfront lands are uniquely positioned to benefit. Opportunities for Steel and related manufacturing uses are better now than they have been for decades.

Opportunities

1. **The broad growth outlook**
   - The economic outlook for Ontario and the GTAH is positive in the short and the long term. Hamilton is positioned very well to compete from an industry and rapid urbanization perspective. Together with improved transportation infrastructure due to Go Transit proposing to provide increased service in the near future, the City is generally becoming more attractive for investment in all asset classes.

2. **Demand for real estate**
   - Overall growth will drive steady demand for real estate to accommodate residential, industrial, retail and to a more limited extent office development over time. Growth has already begun to create an overall ‘energy’ and momentum that bodes well for the Bayfront over time. Although the Bayfront will be competing for a smaller share of the overall market over time, as the City grows these opportunities will expand.

3. **Location and pattern of development**
   - Bayfront’s strategic location, direct 400 series highway access, rail, airport and port infrastructure and presence of underutilized lands and buildings creates an opportunity for intensification. The most significant opportunity by far relates to the underutilized land and building supply potential on the US Steel site.

4. **Hamilton Port**
   - The Hamilton Port plays a major economic role in the Hamilton and broader GTAH market. The Port supports a range of important economic sectors including Steel, food processing, the building and construction industry, municipal maintenance and others.

5. **Steel and advanced industry**
   - The Steel sector in Hamilton is performing well and supports the Province’s priorities to advance productivity, innovation and exports. Surplus infrastructure capacity, especially for water and energy, could appeal to a range of new users such as life sciences and clean technology.
Opportunities, constraints and strategic directions (cont’d)

Constraints and challenges for the Bayfront

Constraints

1. Market demand
   Most new industrial and office development is anticipated to be met on Greenfield sites in Red Hill South (RHS) and the Airport Employment Growth Area (AEGD). The potential for retail is limited by Provincial and City planning policy direction to focus development along the nodes and corridors. Within this context, the Bayfront will be competing for smaller parts of the market.

2. Existing pattern of use
   The Bayfront lands currently function as a specialized area for heavy industry, which makes repurposing many existing facilities difficult. According to the market soundings, existing and established landowners are typically not interested in a sale or redevelopment of their properties for economic and historic reasons. The presence of heavy industry acts as a barrier to new investments.

3. Perception
   The perception of the Bayfront as an old, heavy industrial area acts as a disincentive to mainstream industrial development, especially cleaner more innovative industries. Relatively high taxes also lead to a perception of a high cost of doing business. Misperceptions also exist about the nature of the economic base, the state of industry and the role of the Port.

4. Environmental contamination
   The increased cost of brownfield redevelopment and uncertainty over the level of contamination is a constraint for consolidation and redevelopment. It is also an impediment for private investors from a financial risk, and therefore development feasibility perspective.

5. Appearance
   The current appearance of the Bayfront compounds the current perception of the area as home to a base of declining older ‘rustbelt’ industry. The heavy industrial appearance also acts as a significant disincentive to users seeking a clean new greenfield location. The lack of a gateway feature signals insecurity over the role and function of the area.
**Opportunities, constraints and strategic directions (cont’d)**

**Strategic directions to achieve desired objectives**

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Establish a Vision for the Bayfront</td>
<td>✓</td>
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<tr>
<td>Ensure AEGD and other Greenfield Supply Comes to Market Soon</td>
<td>✓</td>
</tr>
<tr>
<td>Encourage more efficient use of existing land and building supply</td>
<td>✓</td>
</tr>
<tr>
<td>Consider targeted site acquisition to acquire an Element of Control</td>
<td>✓</td>
</tr>
<tr>
<td>Establish a program to bring the sites to market</td>
<td>✓</td>
</tr>
<tr>
<td>Explore Program Management Options</td>
<td>✓</td>
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</tbody>
</table>
Strategic directions

The Bayfront will remain an employment area for at least the short to medium and very likely beyond. Significant land use change is a very long-term proposition. The overarching goal therefore should be to maintain a strong position in legacy sectors while growing and expanding into new sectors. The following are strategic directions to achieve this objective.

<table>
<thead>
<tr>
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<tbody>
<tr>
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<td>Ensure AEGD and other greenfield supply comes to market soon</td>
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</table>
Opportunities, constraints and strategic directions (cont’d)

Strategic directions to achieve desired objectives (cont’d)

**Strategic directions**

The Bayfront is expected to remain an employment area for at least the short to medium and possibly beyond. Significant land use change is a very long-term proposition. The question is how to maintain a strong position in legacy sectors while growing and expanding into new sectors. The following are strategic directions to achieve this objective.

<table>
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<tbody>
<tr>
<td>1</td>
<td>The first step is to establish a vision. The vision needs to work towards shifting the dominant misperception of the Bayfront as a declining industrial area and re-establish the location as a significant economic development opportunity. The vision is also required to correct current misperceptions about the economic base, the state of the industry, the Hamilton Port and the many constraints that need to be overcome to increase development. <strong>Maintaining a strong position in legacy sectors</strong> while growing and expanding into new sectors is key. <strong>Aggressively marketing is required</strong> to new users, demonstrating the benefits to locating on the Bayfront including the <strong>history of manufacturing infrastructure</strong> in place and creating awareness of all <strong>potential economic incentives</strong>. The City should also seek opportunities to beautify and create a gateway for the area. A ‘<strong>sector-based’ approach</strong> may be warranted to recognize distinct areas within the Bayfront such as the eastern gateway, the Steel Cluster, the port, and areas in transition at the margin with the downtown and central Hamilton.</td>
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<td>2</td>
<td>The Province is anticipating an expanded economic role for the City of Hamilton, particularly for industrial development. While the Bayfront area will be competitive for a subset of this demand, most will be for large greenfield sites with good transportation access. The <strong>AEGD and Red Hill lands</strong> are potentially the City’s most important asset to compete in the GTAH industrial market. These lands must be moved through the process from unserved lands to serviced development sites as soon as possible. Accelerating these lands will ensure continued economic vitality, increase the overall level of investment activity help increase demand for the Bayfront.</td>
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### Strategic directions

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<tr>
<td><strong>Encourage more efficient use of existing land and building supply</strong></td>
<td>Since the supply of vacant and available sites in the Bayfront is limited, efforts should be made to encourage efficient use of existing supply. This could involve improving the market appeal of the area through <strong>upgrades to infrastructure</strong>, the provision of <strong>grants or other incentives</strong>, <strong>reducing municipal-related cost barriers</strong>, or <strong>targeted reinvestment</strong> to improve visual appeal. The City needs to work with the <strong>eventual owners of US Steel</strong> to bring surplus land and building space to market and maximize the asset’s potential. A very efficient use of the remaining vacant supply should be encouraged. The City should <strong>identify severable parcels</strong> and work with the current landowners to bring their lands to market, including the port, to ensure future development is aligned with City vision. The City should consider providing as much incentive as possible to encourage landowners to intensify vacant or underutilized assets. This approach would likely need to be phased in over time and based on a set of objective metrics such as lot coverage, building occupancy or length of vacancy/underuse. The City may also wish to consider <strong>selected conversions to other employment uses</strong>, including service commercial and retail, in order to provide a catalyst for development.</td>
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<tr>
<td><strong>Consider targeted site acquisition to acquire an element of control</strong></td>
<td>Given the economics of redevelopment, a <strong>more aggressive approach may be required</strong> to encouraging new development. Case studies show clearly that municipal site control is a key factor in the success of brownfield redevelopment projects particularly for non-residential uses. The City should consider <strong>targeted site acquisition</strong> to gain control of competitive parcels to encourage new business investment, and engage Federal and Provincial authorities around the brownfield cleanup opportunity. Such an approach has been successfully taken in Waterloo Region, where the City of Kitchener <strong>partnered with private developers</strong>, providing servicing and roads through a revolving strategic investment fund, in return for a share in the sale proceeds of the serviced subject lands. The developers were responsible for grading and marketing the lots. A similar approach could be taken for the Bayfront area as lands become available for sale over time.</td>
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Opportunities, constraints and strategic directions (cont’d)

Strategic directions to achieve desired objectives (cont’d)

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<th>Establish a program to bring the sites to market</th>
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While the City plays an important role in matching potential users with available sites by sector, there is less overall attention paid to geographic areas such as the Bayfront. Given the many opportunities and challenges facing the Bayfront area, the City should consider the establishment of a **specific program to bring sites to market**. Elements of the program could include:

1. **Facilitating the Delivery of Underutilized and Vacant Sites to Market**

Resources should be devoted to proactively working to bring to market vacant, underutilized or potential sites that could help meet the needs of industry suited for the Bayfront. The approach would be to identify candidate parcels, assess their potential and work with landowners to bring to market.

2. **Providing A Mechanism For Site ‘Certification’**

According to the market soundings, one of the key impediments to redevelopment in the Bayfront is uncertainty over the level of contamination and therefore risk. As a result, the City wishing to consider a program should contain a mechanism to provide more certainty on the potential need for remediation and identify sites for which known levels of contamination are low.

3. **Targeted Site Acquisition and Investment Pursuit**

In addition to bringing sites to market, there is also a need to assess opportunities for targeted and strategic site acquisitions, provide support for high profile investment targets and work with the Hamilton Port Authority to ensure transparency and communication for future projects and to align the overall City and Port visions for the future.

4. **Identifying the Need For Incentives and Infrastructure Investment**

Given limited municipal resources, there is a need to identify the incentives and infrastructure investments that will most effectively act as a catalyst for development. A function of the program would be to identify, implement and monitor the success of these activities.
Opportunities, constraints and strategic directions (cont’d)

Strategic directions to achieve desired objectives (cont’d)

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<th>6</th>
<th>Explore program management options</th>
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<td>The City should also consider <strong>options for program management</strong>. One option could be the <strong>creation of a steering committee</strong> to provide oversight and guidance. The emphasis should be on appointments with private sector industrial land development experience and senior business leaders familiar with real estate finance and municipal decision-making dynamics, including the steel industry, the port, the airport and rail companies, including political representation from the City (Ideally the Mayor) as well as from the brokerage community familiar with heavy industry in the Hamilton / Burlington / Niagara area.</td>
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