MOVE HERE.
MOVE THE WORLD.

AMAZON HQ2: DETROIT RFP RESPONSE

MOVE HERE. MOVE THE WORLD.

- **A seamless path to a walkable campus of 8 million+ square feet in the heart of downtown Detroit**
- **One campus in two countries on a busy international border**
- **50 million people and many of the world's leading educational institutions within a five-hour drive**
- **Significantly lower operating costs across labor, taxes, and real estate**
- **An incentive package of up to $4 billion that doesn't require any new legislative action**

This document summarizes the key points of the Detroit Region's proposal for HQ2. This summary is organized by the key preferences and decision drivers listed in the RFP. The key data cited in this document is sourced in the Appendix, arranged by the section and paragraph number of the original reference. The accompanying #AmazonDetroit book provides greater detail on the real estate proposal and quality of life in the Detroit Region.

SITE/BUILDING
Detroit's real estate proposal is unique: it offers a walkable campus centered in the heart of an American city that also extends across the Detroit River to include Windsor, Ontario. Please see the #AmazonDetroit book for maps and illustrations.

(1A) A walkable campus in the heart of a major American city. We propose several pathways to 8 million square feet – including over 3 million square feet available immediately – through a selection of historic existing buildings that have undergone meticulous restoration along with new development sites. These sites are not just near or adjacent to downtown, they are tightly clustered in the very center of downtown. Many of the assets are adjacent to key downtown public amenities: Campus Martius Park, a beautiful and popular public space considered the heart of Detroit's downtown, and the 3.5-mile Detroit International RiverWalk, a public park along the Detroit River.

(1B) One campus, two countries. In addition to Detroit, our Amazon HQ2 proposal includes offices in Windsor, Ontario, a city of 217,000 people located a half-mile across the Detroit River from Detroit's downtown. Nearly 80,000 vehicles cross daily between Windsor and Detroit, including 6,000 Canadians commuting into Detroit for work or school. Border crossing options include both the Ambassador Bridge and the Detroit-Windsor Tunnel, which is within a few blocks of the proposed development sites and is jointly owned by the cities of Detroit and Windsor. International bus service is also available through the tunnel. These varied transportation options make border-crossing a relatively frictionless experience: crossing times during peak hours, including customs processing, are typically less than 12 minutes. Crossing the border will only get easier in the coming years. A second cross-border bridge, the Gordie Howe International Bridge, has been approved to begin construction in 2018. In the event that Amazon selects the area for HQ2, Detroit and Windsor have committed to operating a ferry that would provide nearly door-to-door service between riverfront offices on both sides of the border.

(1C) A small group of collaborative partners control the proposed sites. The sites are controlled by five entities and their affiliates – Bedrock, Olympia Development, the City of Detroit, Wayne County, and the City of Windsor – willing to work collaboratively to support Amazon. Many of the sites are owned by Bedrock, Dan Gilbert's real estate development company. In recent years, Bedrock has invested over $3 billion into a portfolio of more than 100 downtown buildings and 18,000 downtown parking spaces. It recently announced an additional $2.1 billion of downtown real estate developments. Olympia Development is the development arm of the Ilitch family, which controls Little Caesar's Pizza, the Detroit Red Wings, and the Detroit Tigers. Olympia Development has invested over $2.6 billion in downtown, including in a new arena for the Red Wings and Detroit Pistons that opened this year.

(1D) Time to Operations: these sites can meet the most aggressive timetable. The proposed sites include 3.2 million square feet in existing buildings, 1.3 million square feet of development projects that are already underway, and 91 acres of development sites (71 in the U.S. and 20 in Canada) that can be expeditiously planned and permitted. The existing buildings are owned by Bedrock, Olympia, the City of Windsor, and Wayne County. Primarily, they are occupied Class A buildings which can be made available on short notice. For Bedrock-controlled properties, Bedrock would be willing to move tenants that are members of Dan Gilbert's family of companies to make space for Amazon. The underway development projects are both controlled by Bedrock and are scheduled to start construction in early 2018. With large floorplates (up to 45,000 square feet) and extensive amenities, these projects are specifically designed to appeal to technology talent.

(1E) Bedrock and DTE Energy will work with Amazon to execute an ambitious sustainability agenda. Bedrock has designed and implemented its own award-winning, high-tech building management system to maximize energy efficiency and will pursue LEED, WELL, or Living Building Challenge certification in partnership with Amazon. DTE Energy, a Fortune 300 company and the primary utility in Michigan, has a successful track record of implementing sustainability programs with customers and has secured support from regulators to work with Amazon. For example, it recently developed an "ultra-low emission" solution with Ford Motor Company that will cover 9 million square feet. The Ford program is designed to reduce energy usage by 50% with natural airflow ventilation, geothermal heating and cooling, and other solutions. Finally, DTE Energy in Detroit and EnWin in Windsor can, with appropriate approvals, offer Amazon 100% wind power. A key component of that wind power will be DTE's 168 MW Pine River wind park, scheduled to open in 2018.

(1F) Utility infrastructure is in place for all sites. All sites discussed are connected to Detroit's technology and energy infrastructure, including two fiber networks provided by either Comcast or Rocket Fiber. Also, the four major cell carriers have extensive area coverage. Connections to all utilities and services are available at Windsor sites.

(1G) Detroit and the region offer a host of other sites. These include the former Northland Mall, an assemblage of 200 acres accessible to two major highways in the City of Southfield, directly north of Detroit. Another option is a collection of existing buildings and new development sites in Detroit's New Center neighborhood two miles north of downtown, largely controlled by a local development group called The Platform.

COMMUNITY/QUALITY OF LIFE
Companies are moving downtown, while longtime and new residents are leaving their mark on the legacy of one of America's iconic cities. Downtown has become what would have been unthinkable only a few years ago: a strategic talent attraction tool. Please see the #AmazonDetroit book for further detail on life in Detroit and Windsor.

(2A) Companies are moving downtown to capture a greater share of the millennial workforce. The total number of workers downtown age 29 or below has grown by 38% from 2010 to 2015, while half of downtown's residential population is age 18-39. Companies are responding. Seven years ago, the Quicken Loans Family of Companies relocated downtown to attract talent. That relocation proved a great success, with Quicken growing from 4,000 team members in 2010 to 17,000 today. Since then many other companies have followed suit. Within the last three years Adient, a Fortune 200 company, announced plans to move its global headquarters from Milwaukee to downtown Detroit; Ally Financial consolidated regional offices into a new downtown headquarters; Lear Corporation opened a corporate innovation center downtown; and Fifth Third Bank moved its regional headquarters downtown. The momentum has also attracted a community of startups filling Detroit's offices, incubators, and co-working spaces, including WeWork and TechTown. Google is the latest major tech company to announce their move to downtown Detroit, joining Microsoft, Twitter, Snapchat, and LinkedIn. Amazon's current office in Detroit, which has been open less than three years and grown to nearly 300 employees (most of them SDEs), is reportedly already expanding its space to allow for a doubling of its staff to nearly 600 employees working in the heart of the motor city.

(2B) Detroiters enjoy an increasingly vibrant urban environment. It is true that decades of population loss have left Detroit with many high vacancy areas, but recent growth in neighborhoods – including downtown – have helped create an outstanding lifestyle as new residents and amenities are woven into an already rich cultural fabric. The New York Times named Detroit a Top 10 global destination in 2017, and noted that longtime Detroiters and newcomers "are injecting remarkable vibrancy into the city." The Detroit Symphony Orchestra and Detroit Institute of Arts are both nationally renowned institutions. All four major sports teams now play downtown within a four-block radius. Detroiters also treasure the Detroit City Football Club, a semi-professional soccer team that crowdfunded their renovation of a historic 7,000-seat stadium. Thousands of Detroiters come together to join a weekly "Slow Roll" bike ride through city neighborhoods, and every Saturday as many as 40,000 people shop for local produce from over 600 vendors at historic Eastern Market. More than 8,500 new downtown apartments are planned through 2022, on top of the $13 billion that has been invested downtown since 2006.

(2C) Detroit's resurgence is spreading beyond greater downtown. Across the city, families are restoring historic homes, entrepreneurs are reviving commercial corridors, and longtime retailers are investing in their stores. The Police Department and citizens work together to make streets safer through creative community policing initiatives such as the Green Light program. Detroit recently became the largest city in the U.S. to install 100% LED streetlights. With investments in additional vehicles and emergency responders, EMS response time is now below the national average.

(2D) Detroit is affordable and has the capacity to maintain affordability while absorbing enormous growth. Detroit's cost of living is 26% below the average for the main cities in each of the 15 largest metro areas in the U.S., allowing residents to enjoy the advantages of big-city life at low prices. Living in and around the vibrant downtown is a bargain relative to peer cities. Monthly rents in greater downtown Detroit average $1.28 per square foot according to CoStar, compared to $2.91 in the South Lake Union area. Because the city was built for a much larger population, there is ample room for growth without land scarcity causing sharp increases in rent. Just in the Central Business District (CBD) and four neighborhoods bordering it, there is enough space on vacant land and surface parking lots to accommodate an additional 191 million square feet of development at densities typical of these neighborhoods. Even under the most aggressive growth scenarios, there is room for new residents to live affordably in and around downtown for decades to come.

(2E) Michigan offers vibrant communities and world-class recreation just outside of Detroit. Young professionals are eager to put down roots throughout the Detroit region because of the high quality of life. Many suburban communities that surround Detroit are idyllic settings to raise a family, have high-quality school systems, and receive national recognitions for safety. Surrounding cities – including Ann Arbor, Grosse Pointe, Birmingham, Bloomfield Hills, St. Clair Shores, and Royal Oak – offer a range of lifestyle options from college towns to waterfront villages. Michigan also has a wealth of year-round recreational opportunities. Michigan residents are always within six miles of a body of water and have easy access to 1,837 miles of biking trails, 3,000 miles of cross country ski trails, 200,000 acres of local parkland, and 11,000 inland lakes. On weekends, many Detroit residents retreat to cottages in northern Michigan to visit 3,288 miles of Great Lakes shoreline and destinations like Traverse City, Mackinac Island, or the Upper Peninsula.

(2F) Diversity and creativity are hallmarks of Detroit and Windsor. This is a place where voters can request a ballot in Bengali, enjoy Mexican-Canadian fusion cuisine, and cross an international border to visit Little Italy in Windsor (the fourth-most diverse community in Canada). Detroit boasts the highest share of African-American owned businesses of any large city in the U.S. at 77%, and earned a perfect score on the Municipal Equality Index – a measure of support for LGBT communities by the Human Rights Campaign. Southeast Michigan is home to Dearborn, which the Washington Post describes as "the Arab capital of North America." It also boasts the City of Hamtramck – the first U.S. city with a majority Muslim city council – where generations of Polish-Americans live alongside newly naturalized citizens.

LABOR FORCE

The Detroit area has access to the deep pool of talent and broad network of top-notch universities necessary for hiring a strong workforce for years to come. Its easy access to the border provides a gateway to Canadian and global talent.

(3A) Detroit has a deep labor pool and one of the fastest growing STEM workforces in the country. Metro Detroit – which includes communities across 11 counties, including the university town of Ann Arbor – boasts 5.4 million residents. Its 2.3 million-strong workforce includes 183,000 STEM professionals. 36,000 STEM jobs have been added since 2011, more than every metropolitan area outside the Bay Area. Metro Detroit has the largest and fastest growing population of engineers of any American metropolitan area, at 75,000, as well as 25,000 software development engineers (SDEs) and 44,000 computer-tech workers. Casting a wider net, Detroit is within a five-hour drive of nearly 50 million people on both sides of the border, and a workforce of 21.7 million. On the U.S. side of the border, there are, within a five-hour drive, over 884,000 individuals working in STEM fields, including 139,000 SDEs, and 283,000 computer-tech workers.

(3B) Locating HQ2 on the border provides Amazon a unique opportunity to access Canadian and global talent. Windsor-Essex County provides an additional workforce of 195,000 and, thanks to Ontario and Canada's proven commitment to attracting global talent, can act as a gateway to the world. In 2017, the Canadian federal government launched a Global Skills Strategy (GSS) designed to provide Canadian employers faster access to top global talent. GSS includes a commitment to process work permits for certain highly skilled talent in two weeks. The Ontario Immigrant Nominee Program (OINP) helps Ontario employers to recruit foreign nationals – including international graduate students in Canada – by having the province officially nominate them to the federal government for permanent residency. These and other programs have shown results: Ontario has over 183,000 immigrants working in the information and communications technology sector today and over one in four residents of Windsor were not born in Canada.

(3C) Amazon can tap a rich regional university talent pipeline. Southeast Michigan's 25 colleges and universities graduate 56,000 students with bachelor's and advanced degrees annually, with more than 25% earning STEM degrees. Within STEM, there are 8,300 engineering and computer science grads, of which 3,400 are SDEs. Michigan's University Research Corridor (an alliance of University of Michigan, Michigan State, and Wayne State) is one of the nation's top academic research clusters, which has stimulated hundreds of research collaborations across the three institutions over the last decade. American colleges and universities within a five-hour drive of Detroit graduate 367,000 annually, including 80,000 STEM graduates, 43,000 engineering and computer science graduates, and 20,000 SDEs. Similarly, there are 12 Canadian universities within a five-hour drive of Detroit granting 81,000 degrees and certificates per year.

(3D) Many of the top ranked university programs relevant to Amazon's needs are in the region. The University of Michigan offers several Top 10 engineering programs – including computer, electrical, and aerospace – and sends more MBAs to Amazon than any other business school. Michigan State University has the top rated undergrad and MBA Supply Chain Management & Logistics programs in the country, and, overall, Michigan's colleges and universities produce the second-most supply chain graduates in the country. Detroit is home to the College for Creative Studies, an internationally recognized design school, and the Detroit area employs 16% of the nation's industrial designers. Detroit is also within a five-hour drive of a number of outstanding universities (such as Northwestern, Notre Dame, and the University of Chicago), and three of the Top 12 schools for software development in America: Carnegie Mellon, Purdue, and the University of Michigan. The University of Waterloo has earned Canada's No.2 ranking in computer science and engineering, graduating 1,000 software developers annually. Carnegie Mellon and the University of Waterloo are among the four universities Amazon selected for the Alexa Fund Fellowship.

(3E) Michigan has a strong track record in innovative K-12 STEM training programs. The Detroit Area Pre-College Engineering Program connects Detroit's youth with real-world experiences in STEM careers. Over 70,000 students have participated in the program, 65% of whom have gone on to pursue careers in STEM. The in-state success of FIRST Robotics, a national K-12 robotics program, is another prime example of Michigan's success in developing STEM talent at the K-12 level. Michigan is home to 345 FIRST Robotics teams, more than any other state and, as of 2015, 107 more than No. 2 California.

(3F) Michigan is committing to a new $120 million investment to expand its tech workforce. As part of the Amazon HQ2 proposal, the state is launching a comprehensive set of ten complementary programs designed to meet the workforce needs of tech companies. This suite of programs – which will bolster STEM education and increase the number of tech graduates in Michigan – cover a spectrum from K-12 through post-secondary to life-long learning/continuing education. Described in more detail in the appendix, the programs include scholarships for students pursuing computer science education; grants to educational institutions for capital investment; funding for teacher training; apprenticeships; and subsidized child care for tech workers. By 2030, the full suite of programs will have impacted up to 250,000 individuals.

(3G) Michigan and Ontario's colleges and universities have committed to partnering with Amazon. Higher education institutions, ranging from public research universities to community colleges, have pledged their support for HQ2 in Detroit. In a strong showing of partnership, the University Research Corridor has committed to collectively design educational programs on campus or nearby to meet Amazon's talent needs. They have also committed to working with Amazon in other capacities, including research and development partnerships.

(3H) Michigan is outpacing the region at attracting and retaining talent. Though Michigan was once a major exporter of talent, its strengthening economy and revitalizing cities are now attracting a wave of top-tier talent. For the past three years in a row, Michigan has attracted more educated residents than any other Great Lakes state, including New York, Illinois, and Pennsylvania. Total net in-migration for residents with bachelor's degrees from 2014-2016 exceeds 20,000. Michigan's companies are seeing benefits of this shift. Quicken Loans, which employs more than 2,000 IT workers, has seen annual out-of-state applications for tech positions rise from 2,400 in 2015 to 7,600 in the first three quarters of 2017, a rate of increase seven times higher than that of in-state applicants. Quicken's internship program also reflects Detroit's increasing appeal, with more than 20,800 applicants, from 200 universities, applying this year for 1,836 positions.

STRATEGIC FIT

Detroit's distinctive innovation ecosystem – the world leader in industrial scale design and production, and the movement of goods and people – can enable Amazon to solve the next generation of customer problems.

(4A) Detroit is a city of innovators with relentless focus on topics relevant to Amazon. Detroit's track record of innovation and creativity led the U.S. Patent & Trademark Office to open its first office outside the Washington D.C. area in Detroit in 2012. Michigan ranks No. 6 nationally for patents granted, and the state's patent growth is the highest among the Top 10 states. Michigan's patent activity covers a diverse set of technologies with significant overlap with topics critical to Amazon. Over 25% of Michigan's patents are in the "computing" and "electronic communication" categories, sectors that make up 75% of Amazon's recent filings.

(4B) Detroit remains the Motor City and has claimed the driver's seat in creating the next generation of mobility. Along with all three large domestic automakers – GM, Ford, and Chrysler – nearly every other major global automaker has either a headquarters or major technology center in Michigan, and 92 of the top 100 international suppliers also have a presence. Roughly $11 billion is spent annually on automotive R&D in the state, or 76% of the total $14.1 billion U.S. investment in the sector. Michigan leads the nation in the number of connected and autonomous vehicle projects. It also leads the nation in patents granted in vehicle data processing innovation – nearly double the Bay Area's patent haul. More than $2.6 billion has been invested in Michigan to research, develop, and deploy mobility technologies and infrastructure, including the American Center for Mobility, a $100 million public-private partnership aimed at developing an all-mode future transportation system. The first state to legalize self-driving vehicles on public roads, Michigan by 2019 will have more than 500 miles of smart public roads supporting vehicle-to-infrastructure communication. By locating in Detroit, Amazon would be close to industry and regulatory partners innovating on the future of mobility.

(4C) Detroit is also a powerhouse in aerospace. Detroit provides a cutting-edge environment for the aerospace and defense industries, and is leading the country in drone/UAV testing and development. Michigan is the 2nd most attractive state in the country for aerospace manufacturing, and home to nearly 700 aerospace & defense companies. Detroit is leading the way in drone/UAV policy – with a State of Michigan task force charged with creating friendly policies for developing, testing and operating drones. Michigan has some of the most fully developed drone testing infrastructure (e.g., ACM, M-Air) in the country.

(4D) Advanced manufacturing represents a large, untapped market for the industrial application of cloud computing and Internet of Things technologies. Detroit is home to the greatest concentration of advanced manufacturing establishments in the U.S., with nearly 2,500 such establishments in and around the city. And Michigan has over 27,000 industrial robots, more than any other state. Advanced manufacturing is supported by a host of partnerships (e.g., Lightweight Innovations for Tomorrow) spanning the university system; federal, state, and local government; and industry groups.

LOGISTICS

Located in the Eastern Time Zone, Detroit has a world-class airport, and the least congested roads of any major metro. Regional leaders are investing in transit to mitigate congestion as downtown grows, and have committed to investing more if Amazon selects Detroit. There is no better place to participate in the coming mobility revolution.

(5A) Detroit's international airport is a regional treasure with ample room to grow. Detroit Metropolitan Wayne County Airport, located 25 minutes from downtown, has 455 daily departures serving 127 domestic and international destinations. It ranks No.1 for on-time performance among all U.S. airports with more than 20 million departing seats per year, and is the second largest Delta hub. Direct flights are offered to all major U.S. cities including six per day to Seattle on two airlines; six to San Francisco; three to Austin; 23 to the Washington area; and 37 to the New York area. Other direct routes include daily flights to Tokyo, Seoul, Shanghai and Beijing and to the four largest airports in Western Europe: two each to London, Amsterdam and Paris, and three to Frankfurt. DTW has significant opportunity for both passenger and freight expansion, operating at just 55% capacity today.

(5B) Several other nearby airports provide additional options. Coleman A. Young International Airport is a 264-acre general aviation airport owned and operated by the City of Detroit and located 5.5 miles from downtown Detroit. Once served by commercial airlines, the facility completed 2,800 private flight departures in 2016. The airport today accommodates both autonomous vehicle and drone testing and the City of Detroit is eager to work with Amazon to determine how this asset can support HQ2 in research, testing, aviation and other capacities. Other regional airports provide additional capacity including Oakland County International Airport and Windsor International Airport.

(5C) Detroit roadways have ample capacity to absorb growth. Of the 15 largest metro areas in the U.S., Detroit drivers spend the least amount of time in congestion during peak periods, and experience the smallest increase in drive time between peak and off-peak. Since 1950, four major freeways have been built (I-94, I-96, I-75, and M-10), as the city's population has declined. This increase in capacity and reduction in demand is the reason that downtown office workers can enjoy a variety of urban or suburban residential locations without having to sacrifice work or play time for their commute. Residents of most Detroit neighborhoods can reach downtown within 15 minutes, and many popular suburban locations are within a 30-minute drive of downtown.

(5D) Detroit has started investing in transit to avoid congestion as downtown grows. Aware of how growth can lead to congestion, and committed to providing alternatives to people who don't have a car or don't want a car, regional leaders have initiated a series of investments in transit that are addressing existing shortcomings. They will, over time, build out a more significant regional transit service. In the past two years alone, Detroit has added 2,600 bus trips per week, a 17% increase, and introduced 24-hour bus service on the most important city corridors. In early 2017 the QLine streetcar launched, which connects downtown to several growing neighborhoods along Woodward Avenue, the "main street" of Detroit.

(5E) Transit service is already planned to expand significantly in 2018. Next year will see the introduction of express bus service along three of the five major arterials linking downtown to Detroit neighborhoods and the suburbs. Investments will be made to improve the speed of the service, including the installation of traffic-light technology that will allow buses to avoid red lights, and off-board fare payment to reduce queuing. Detroit will also increase bus service on an additional 10 corridors. Detroit's significant roadway capacity allows it to expand transit service cost-effectively. Instead of creating a new dedicated right of way for additional services, such services can use existing street infrastructure without being mired in congestion.

(5F) Regional leaders have committed to additional transit improvements if Amazon selects Detroit. Within a year of Amazon's selection, express bus service will begin on the remaining two out of the five arterials serving downtown. That service will connect downtown to most major Detroit neighborhoods and suburban communities, and would directly connect downtown to DTW airport. There will also be a frequent commuter bus service launched to connect Ann Arbor and the University of Michigan to downtown Detroit. Finally, Detroit and Windsor will create an international ferry service connecting their two downtowns.

(5G) Amazon's employees will benefit from local mobility innovation. The spread of electric and autonomous vehicles will completely remake transportation. Detroit's people and companies are at the heart of that transformation, and the public sector is committed to supporting experimentation and testing in the area. Local firms are already taking advantage of this opportunity. For example, Bedrock is currently partnering with an Ann Arbor autonomous car startup to offer its employees a self-driving shuttle pilot on downtown streets. This reflects a broader spirit of collaboration that the city's automakers support. Both Ford's Chariot ride-sharing shuttle (which offers services to Amazon in Seattle) and General Motors' Maven suite of mobility services can be provided to Amazon employees getting to and around the campus.

(5H) Detroit continues to make significant infrastructure investments to improve biking and walkability. Downtown Detroit has been recognized nationally for its placemaking, and the City has begun work on a comprehensive network of pedestrian and cyclist improvements. Detroit completed 12 miles of bike lanes in the last 12 months, and recently agreed to purchase 8 miles of abandoned rail line to complete a 26-mile greenway loop connecting downtown to dozens of Detroit neighborhoods and several neighboring cities. 5.5 miles of that loop are already complete. MoGo, Detroit's new bikeshare service, was launched this May and recorded 100,000 total rides within the first five months, a figure that had been forecast to take a year. Detroit experienced the fastest growth in bike commuting among the 70 largest American cities from 2000 to 2016, with the share of commuters using bikes increasing 540%.

CAPITAL AND OPERATING COSTS
Across real estate, labor and tax, Detroit offers a low-cost operating environment.

(6A) Amazon can create a vibrant international downtown campus at among the lowest occupancy costs of any major North American metropolitan area. In any other top 15 metropolitan area in the U.S., an urban campus opportunity equivalent to that available in Detroit would cost at least double the price – if that opportunity were available at all. Asking rents for general real estate in Detroit are substantially lower than peer markets. For example, average existing Class A office space rents in Detroit are currently $22 per square foot compared to $44 per square foot across other major downtown markets, according to CoStar. Detroit's value proposition is also reflected by sale prices and cap rates of Class A CBD offices exhibiting a significant discount to other markets. In Detroit, Amazon has a unique opportunity to enjoy significant value creation should it choose to own a portion of its real estate.

(6B) Detroit and Windsor offer Amazon low-cost and reliable renewable energy. The cost of power for commercial users in Michigan is at the national average. With excellent wind resources in the region, DTE Energy in Detroit and EnWin in Windsor can, with appropriate approvals, offer Amazon 100% renewable power with little to no premium on top of the base rate for electricity. Both downtown Detroit and downtown Windsor also feature district heating and cooling systems that Amazon could utilize.

(6C) Lower labor costs drive savings for Amazon, while employees take advantage of higher quality of life. Even as job growth has accelerated, salaries in the Detroit area in many job categories relevant to Amazon remain substantially below the national average. For example, across the Top 15 metro areas employing software developers, Detroit has the lowest average salary at $88,000, compared to the average of $113,000 and $128,000 in Seattle. These differences, across multiple job categories, can have substantial operating-cost implications over 50,000 employees. One illustrative scenario in the appendix shows how hiring the 50,000 employees in Detroit could save $1.5 billion annually relative to Seattle. Lower salaries in Detroit are more than offset by a lower cost of living. Earning $88,000 in Detroit is equivalent to earning $134,000 in Seattle. More broadly, Detroit's cost of living is 26% lower than the average across the main cities in the 15 largest U.S. metro areas.

(6D) Michigan's business tax environment is recognized as among the best in the nation. The state has recently passed corporate income tax reform, moving to a predictable flat 6% rate. As a result, Michigan moved from 49th to 8th in the Tax Foundation's Corporate Income Tax ranking. In the overall Business Tax ranking, Michigan is currently 12th in the nation, up from 18th. Locating HQ2 in Detroit will have no impact on Amazon's Michigan corporate income tax liability because, per Michigan law, that liability is apportioned solely according to the destination of Amazon's sales.

(6E) Having successfully addressed structural challenges, Detroit and Michigan now enjoy stable fiscal positions. Detroit emerged three years ago from a bankruptcy that, by addressing legacy debt and pension liabilities, set the course for long-term fiscal stability. In fiscal 2017, the City achieved a third-consecutive budget surplus. Detroit uses these surpluses for one-time spending to enhance its long-term fiscal position, including reducing future pension obligations. As a result of this prudent fiscal management, the City has been awarded two credit-rating upgrades over the past three years. Michigan, meanwhile, has adopted best-in-class two-year budgeting processes and for seven consecutive years it has approved its budget well ahead of mandated deadlines. Since 2011, Michigan has built its rainy-day fund from zero to over $700 million, with an additional $150 million contribution budgeted for 2018. Consequently, Michigan's credit rating has improved from Moody's Aa2 stable rating to Aa1 stable rating over the period.

INCENTIVES

Our proposal includes a robust incentive package that is based on existing law and can be activated as soon as Amazon needs them. In Canada, well-established local, provincial, and federal programs offer certain built-in tax advantages.

(7A) We propose for HQ2 investments in the U.S. an innovative $4 billion incentive package. The proposal reflects a collaborative effort from the State of Michigan, Wayne County, and the City of Detroit available to Amazon with no further legislative action. It is composed primarily of the following components: The *Michigan Thrive Initiative* and *Good Jobs for Michigan* programs, two recently enacted tools that are uniquely tailored to support transformational urban campus developments. Together, these programs allow Amazon to capture 100% of the state personal income tax paid by its employees within key HQ2 development sites for the first 10 years, and an additional 50% for the next 10 years. The *Renaissance Zone Program*, long a national model for its simplicity and ability to provide comprehensive tax relief, abates Amazon's real and personal property tax, City of Detroit corporate income tax, and utility users tax for 30 years. Rounding out the incentive package are a variety of simple and predictable state and local incentive programs that provide job creation grants and additional property tax relief.

(7B) HQ2 investments in Windsor will attract additional incentives. Windsor's incentive package consists of national, provincial, and local support including prime downtown real estate at a nominal cost, property tax increment financing, grant funding, and corporate income tax credits. The package can be scaled based on Amazon's level of investment in Windsor. For example, locating 5,000 employees in a 500,000-square foot facility would result in an incentive package valued at approximately $106 million USD.

(7C) Built-in tax advantages are also available for certain HQ2 investments in Windsor. Through a combination of refundable and non-refundable corporate income tax credits at the federal and provincial levels, conducting R&D in Ontario has unique tax advantages. In Ontario, R&D and innovation tax credits can offset approximately 25% - 30% of eligible expenditures. Similarly, refundable federal and provincial film production and digital media corporate income tax credits support the creation of original content on the Canadian side of the border. Those credits can offset 35% - 40% of eligible expenses.

MOVE HERE. MOVE THE WORLD.

The Detroit Region's proposal for HQ2 contains a number of distinct advantages: a walkable campus in the heart of downtown which can cross an international border, a talent pool that is both deep and affordable, proximity to world class educational institutions, a low cost operating environment, and a wealth of potential partners to drive innovation in fields such as mobility, aerospace, and advanced manufacturing. We invite you to visit Detroit and learn more about our region firsthand.

GENERAL MOTORS

Mary T. Barra
Chairman & Chief Executive Officer

October 11, 2017

Amazon Office of Economic Development
C/o Site Manager Golden
2121 7th Ave
Seattle, WA 98121

Dear Amazon,

General Motors is pleased to express its strong support for the City of Detroit's proposal to become the home of Amazon's second headquarters.

As a company with our Global Headquarters and more than 7,000 employees located in and around Detroit's revitalized downtown district, we know firsthand the energy talent, and resources available to companies who invest here. GM has announced an ambitious vision to build a transportation future with zero crashes, zero emissions and zero congestion. Detroit and its regional community are essential partners in helping us reach this vision, and by working together we will make it a reality sooner than the world expects.

GM is also excited about the opportunity to provide mobility solutions for Amazon employees, vendors, contractors and their families, starting right here in our own backyard. Our current mobility efforts include expanding our Maven car sharing program through a creative partnership with the City of Detroit using public rights of way and piloting potential mobility solutions for urban centers globally, including for example:

- Maven Gig to support shared-used mobility services (*e.g.*, Amazon Flex, Uber, Lyft and other transportation platforms) as well as DSP solutions;
- Maven City / Home / Work– dedicated, closed-community car sharing services for residential and commercial fleets;
- Maven Shuttle – software to run dynamic, transit-integrated shuttle services, plus options to include vehicles such as the Chevy Bolt EV (micro-shuttle);
- Self-driving shuttle or in-vehicle ride-share; and
- Coordinated EV charging infrastructure collaboration (*e.g.,* installation, incentives, working with utility regulators in Michigan and throughout the country)

In addition, GM is committed to continuing to innovate with Amazon in developing various Strategic Partnership opportunities that leverage the existing relationship we currently enjoy. Future arrangements could include:

- Fleet vehicles – The availability of GM's full portfolio, including Bolt EV and commercial vans;
- R&D collaboration, including:
  - In-vehicle AI/voice assistant research – possible product integration;
  - Future of in-vehicle user experience;
  - Home-to-car experiences;
  - Data sharing; and
  - Additive manufacturing – the future of 3D printing.
- Engineering co-creation leveraging advanced technologies, including:
  - Application of self-driving technologies for next generation logistics solutions;
  - Last mile – vehicle alternatives including electrified propulsion (battery or fuel cells) – large and small vehicle types and non-truck options;
  - Package delivery (*e.g.*, to vehicle trunk or other vehicle-related delivery services); and
  - In-vehicle messaging leveraging 6 million connected vehicles (*e.g.*, alerts, promotions)

The comeback of Detroit is clear, but the final chapters are still being written. From its advantaged location in Detroit, Amazon will play a historic role in helping write this exciting story with the full support and partnership of General Motors and other leading companies in our region.

I am very optimistic about the future of our company, the auto industry and the City of Detroit. I would be happy to meet with key members of the Amazon team to further discuss our vision, and to help make Detroit the first choice as your second home.

Sincerely,

Mary Barra

Bradley M. Gayton
GVP, Chief Administrative Officer
and General Counsel
(313) 323-2513

World Headquarters
One American Road
Dearborn, MI 48126

October 10, 2017

Subject: Ford Motor Company Support of the Detroit Amazon HQ2 Proposal

Dear Jeff,

On behalf of Ford Motor Company, we are pleased to provide this letter of support for Amazon's consideration of its HQ2 in Detroit.

The City of Detroit's proposal provides a compelling regional vision to meet Amazon's need for a second headquarters through the development of key land and city systems, including transportation, in Southeast Michigan. This region has long been home to Ford and we find it to be one of the most welcoming places in the world to do business. We are committed to ongoing investment in Southeastern Michigan, including continued research and development of smart vehicles for a smart world.

This region, which has such a high concentration of large automotive manufacturers and suppliers, could afford Amazon an opportunity to collaborate in close proximity on many advanced technologies and mobility solutions.

Ford is proud of the existing partnership that we have with Amazon. If Amazon choses to put its HQ2 in Detroit, potential new or expanded areas of collaboration, such as product integration, logistics, data processing may increase exponentially.

Thank you for your consideration.

Sincerely,

Bradley Gayton

CC: Honorable Mayor Duggan

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LOCATION OF REQUESTED RFP INFORMATION

Site / Building

Information requested	Location
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Community / Quality of Life

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Site/Building

Appendix chapters:

(1A) A walkable campus in the heart of a major American city.

(1E) Bedrock and DTE Energy will work with Amazon to execute an ambitious sustainability agenda.

(1F) Utility infrastructure is in place for all sites.

(1G) Detroit and the region offer a host of other sites.

SITE/BUILDING

(1A) A walkable campus in the heart of a major American city.

i. Phase 1 and Phase 2 properties: ownership and rentable square feet of office space; 3.2 million square feet available in phase 1

Amazon has several options to quickly establish its Phase 1 2019 presence in Detroit and Windsor in a collection of downtown buildings. These existing buildings are owned by public and private parties that can be flexible to meet Amazon's timing and needs.

Amazon can then rapidly expand its Phase 2 presence by locating in two new office towers under development by Bedrock, the Hudson's Site and Monroe Blocks.

Phase 1 (Existing Buildings)		
	Ownership	**Rentable Square Feet (RSF)**
Detroit Properties		
One Campus Martius + Expansion	Bedrock	1,011,737
First National Building	Bedrock	527,263
Chase Building	Bedrock	373,473
Chrysler House	Bedrock	225,583
One Woodward	Bedrock	190,925
1001 Woodward	Bedrock	114,165
1900 St. Antoine	Bedrock	95,804
1201 & 1217 Woodward	Bedrock	93,471
Fox Theatre Office Building	Olympia Development	90,000
1922 Cass	Olympia Development	75,000
2110 Park Avenue	Olympia Development	62,000
511 Woodward	Wayne County	27,717
Subtotal Detroit Properties		**2,887,138**
Windsor Properties		
Hon. Paul Martin Sr. Building	City of Windsor	156,464
Windsor City Hall	City of Windsor	120,000
Canada Building	Bedrock (Under contract)	75,000
Subtotal Windsor Properties		**351,464**
Phase 1 Total RSF		**3,238,602**
Phase 2 (In Progress Developments)		
Detroit Properties		
Monroe Blocks	Bedrock	820,000
Hudson's Site	Bedrock	476,000
Phase 2 Total RSF		**1,296,000**
Phase 1 and Phase 2 Grand Total (RSF)		**4,534,602**

ii. Phase 3 properties: ownership and acreage; 91.2 total acres

Amazon can grow into Phase 3 in Detroit and Windsor on more than 91 acres of vacant property within walking distance of Phase 1 and Phase 2 properties. These sites can be developed as urban, mixed-use campuses that feature not only Amazon office space, but also residential, retail, hotel, and public space.

Phase 3 (Development Sites)		
Site	**Ownership**	**Acres**
Detroit Properties		
Rivereast	Riverfront Holdings, Inc. (General Motors)	28.4
Gratiot Site - County	Wayne County	18.0
Gratiot Site - Crain's	Crain Communications	4.8
The District Sites	Olympia Development	11.2
Dequindre East	City of Detroit Affiliate	8.0
Ford Auditorium	City of Detroit	1.0
Total Detroit Properties		**71.4**
Windsor Properties		
Windsor Rivereast	City of Windsor	19.8
Total Windsor Properties		**19.8**
Grand Total (Acres)		**91.2**

iii. All properties: selection criteria

All properties and sites are located in Downtown Detroit and Downtown Windsor, and meet Amazon's basic site selection criteria.

Phase 1 (Existing Buildings)					
	30 miles to population center	**1- 2 miles from major highways**	**45 minutes from international airport**	**Access to mass transit**	**Fiber connectivity**
Detroit Properties					
One Campus Martius+ Expansion	Y	Y	Y	Y	Y
First National Building	Y	Y	Y	Y	Y
Chase Tower	Y	Y	Y	Y	Y
Chrysler House	Y	Y	Y	Y	Y
One Woodward	Y	Y	Y	Y	Y
1001 Woodward	Y	Y	Y	Y	Y
1900 St. Antoine	Y	Y	Y	Y	Y
1201 & 1217 Woodward	Y	Y	Y	Y	Y

Fox Theatre Office Building	Y	Y	Y	Y	Y
1922 Cass	Y	Y	Y	Y	Y
2110 Park Avenue	Y	Y	Y	Y	Y
511 Woodward	Y	Y	Y	Y	Y
Windsor Properties					
Hon. Paul Martin Sr. Building	Y	Y	Y	Y	Y
Windsor City Hall	Y	Y	Y	Y	Y
Canada Building	Y	Y	Y	Y	Y
Phase 2 (In Progress Developments)					
Detroit Properties					
Monroe Blocks	Y	Y	Y	Y	Y
Hudson's Site	Y	Y	Y	Y	Y
Phase 3 (Development Sites)					
Detroit Properties					
Rivereast	Y	Y	Y	Y	Y
Gratiot Sites	Y	Y	Y	Y	Y
The District Parcels	Y	Y	Y	Y	Y
Dequindre East	Y	Y	Y	Y	Y
Ford Auditorium	Y	Y	Y	Y	Y
Windsor Properties					
Windsor Rivereast	Y	Y	Y	Y	Y

(1E) Bedrock and DTE Energy will work with Amazon to execute an ambitious sustainability agenda.

i. Bedrock is committed to supporting Amazon's sustainability needs

Sustainable Real Estate Leadership at Bedrock

Bedrock offers Amazon a sustainable real estate partner in Detroit. Bedrock operates an award-winning portfolio of over 100 properties concentrated in downtown Detroit. A long-term investment philosophy and vertically integrated team ensures that Bedrock makes the necessary capital and operating investments to drive efficiency.

Bedrock saw the untapped opportunity to breathe new life into downtown Detroit's buildings, underscoring a culture of reuse.

- Since its inception just a few years ago, Bedrock has specialized in the adaptive reuse of Detroit's historic building stock, making use of existing buildings and infrastructure.
- During renovation projects, Bedrock takes stock of existing materials and then either reuses those materials on the property or makes them available to non-profit organizations.

Bedrock is on the cutting edge of smart building management that maximizes energy efficiency.

- Bedrock properties feature building management systems that feed into an integrated building automation control room backed by advanced, secure technology. The system is user friendly and can be extended to tenants to feed into building systems controls.

- With this technology, a sophisticated Bedrock engineering team monitors usage, predicts issues, and proactively resolves issues related to HVAC, lighting, and other systems.
- Bedrock has won multiple awards from the industry's leading smart building association, including 2014 and 2017 IBcon Digie Awards for Most Intelligent Office Portfolio and a 2015 IBcon Digie Award for Most Intelligent Specialty Building.

Bedrock creatively operates its buildings in a sustainable manner.

- Bedrock properties are 100% landfill free with waste either recycled or utilized by Detroit's district energy system.
- In partnership with our recycling partners, plastic waste has been used to create everything from air filters for cars to insulation for sleeping bags that were donated to the homeless.
- Bedrock partners with a local business, Detroit Dirt, to compost organic waste from Bedrock's cafeterias and restaurant tenants.
- Cleaning staff utilizes green cleaning products from 3M.
- Buildings feature advanced LED lighting, temperature controls, and motorized blinds.
- Several of Bedrock's properties are BOMA 360 designated, Energy Star Certified, and Clean Air Award winners from the National Air Filtration Association.

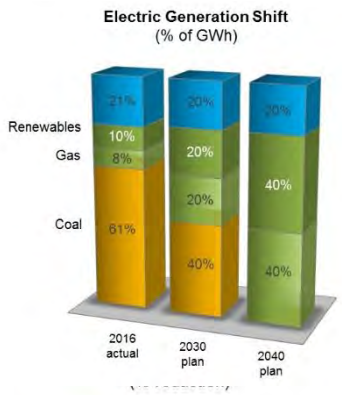
Bedrock would be excited to partner with Amazon in the delivery of next generation, smart, healthy, and sustainable office space in a practical, cost effective way.

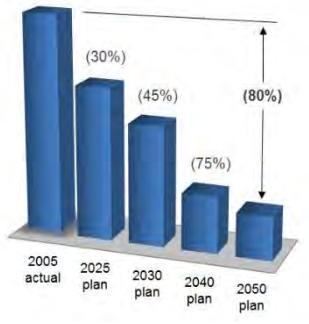
- Bedrock's Hudson's Site development is planned to be WELL Certified, and other developments can pursue LEED certification.
- Bedrock recognizes the changing nature of work, and the mandate to provide employees a healthy workplace that better connects employees to nature. In fact, a Bedrock property will be featuring a rooftop beekeeping outfit next year.
- New construction for Amazon in Detroit can feature maximum natural light, fresh air, and green space that rejuvenates employees and minimizes energy use. An electric-system, powered by wind, for heating, cooling, and electricity would allow for a carbon-neutral Amazon presence in Detroit.

ii. DTE Energy is committed to supporting Amazon's sustainability needs

DTE Energy's aspiration is to be the best-operated energy company in North America and be a force for growth and prosperity in the communities where we live and serve. For many years, the energy industry has viewed sustainability as a choice between affordability for customers and environmental outcomes. We reject that premise. Our work in environmental sustainability establishes DTE Energy as a leader without ever losing sight of our mission to provide safe, affordable and reliable energy to our customers. Amazon's view that sustainability is not only good for the environment, but good for customers and employees as well is one we share at DTE. We recognize our role in the industry-wide transformation that seeks lower-carbon energy sources and as such, we at DTE are pursuing a deliberate course of action to meet the challenges of the future.

Competitive and reliable sustainability for DTE Energy and our customers:





- DTE Energy has always been an industry leader in addressing environmental issues and has recently made a nation-leading commitment to a diversified, coal-free energy portfolio by 2040 with goals to reduce electric generation CO_2 emissions by 80% below 2005 levels by 2050
- DTE Energy is a leader in environmental stewardship and protecting natural resources which is evidenced by our environmental expenditures totaling approximately $2.4 billion through 2016 and by the fact that our CEO and Chairman, Gerard Anderson, chairs the Edison Electric Institute's environmental committee
- Michigan ranks 14th in the nation in terms of installed wind capacity. DTE is in the nation's top 10 in terms of renewable energy produced and is Michigan's largest investor and developer of renewable energy with 1,000 MW of capacity currently online within the state, including 13 wind parks and the Midwest's largest utility scale solar facility. We are excited to discuss new, industry leading green power solutions and tariffs in accordance with the Corporate Renewable Energy Buyers' Principles and with public service commission approval, designed in conjunction with Amazon to be competitively priced and meet sustainability goals to supply corporations with any level of renewable energy desired. In fact, DTE has full support from the Chair of the Michigan Public Service Commission (MPSC) that encourages DTE to develop a creative pricing solution
- For the downtown Detroit locations being considered, DTE's electric power distribution system is the flagship of our service territory and is comprised of an extremely reliable network serving a core central business district and high density residential loads. DTE plans to invest $700 million in the next 10 years to enhance downtown electric infrastructures in the city of Detroit to further improve safety, reliability and power quality of the electric services for our Detroit customers
- DTE is uniquely qualified to meet and exceed Amazon's sustainability goals as we are currently developing an integrated "ultra-low emission" energy solution with Ford Motor Company whose goal is to undertake a campus transformation that reduces new office energy usage by 50% and puts them in a sustainability leadership position that directly supports their vision of making people's lives better

DTE is committed to work together to serve not only Amazon's needs, but to set an example for the US and the World to follow regarding low cost and highly reliable renewable electricity, and best in class environmental leadership

(1F) Utility infrastructure is in place for all sites.

i. Zoning, and infrastructure for Phase 2 and Phase 3 development sites

Amazon can build new office space on sites that are ready for high-density and mixed-use development. Both the City of Detroit and the City of Windsor are prepared to facilitate timely approval to ensure predictable and timely expansion for Amazon. The owners of these sites, such as Bedrock and Olympia Development, are well-versed in navigating the approval process in Detroit.

All sites are located on primary roadways and utility corridors. Business as usual hookups from those utility corridors to new buildings will be needed. Some sites, such as Rivereast, the Gratiot Sites, and Windsor Rivereast require some new streets and utilities within the confines of the site to break up the properties into developable parcels.

Phase 2 and Phase 3 Development Sites		
Site	**Current zoning**	**Infrastructure**
Hudson's Site	B5 (Major Business District)	Connections to all utilities and services available; New streetscapes and public space planned
Monroe Blocks	B5 (Major Business District)	Connections to all utilities and services available; New streetscapes and public spaces planned
Rivereast	Mix of PD (Planned Development) and SD4 (Special Development District Riverfront Mixed Use)	Connections to all utilities and services available; Two new streets with utilities required
Gratiot Sites	Mix of PD (Planned Development), B4 (General Business District), and B6 (General Services District)	Connections to all utilities and services available; New streets with utilities required
The District Parcels	Mix of B5 (Major Business District) and B4 (General Business District)	Connections to all utilities and services available
Dequindre East	SD4 (Special Development District Riverfront Mixed Use)	Connections to all utilities and services available
Ford Auditorium	PC (Public Center)	Connections to all utilities and services available
Windsor Rivereast	Residential	Connections to all utilities and services available; New streets with utilities required

ii. Fiber connectivity

Redundant and Ultra High-Speed Fiber Connectivity in Detroit and Windsor

Detroit offers Amazon excellent fiber connectivity with multiple, major fiber infrastructure routes. In total, 38 different ISPs serve the metro Detroit area with enterprise and residential service. These multiple providers and pathways ensure not just choice, speed, and capacity, but also allow for redundant solutions for maximum reliability.

Six providers offer industry-leading, all-fiber connectivity in Detroit.

- Rocket Fiber
- Level 3
- LightowerTelefonica
- US Signal
- Windstream
- Comcast and AT&T also have extensive, but not all-fiber systems

In Windsor, MNSI provides fiber connectivity. In addition, the SouthWestern Integrated Fibre Technology (SWIFT) network is being developed and recently received $180 million in government funding support to begin construction of a $300 million fiber network in Southwestern Ontario, including Windsor.

Fiber infrastructure is already in place for the proposed Phase 1 and Phase 2 properties. Phase 3 properties are adjacent to major fiber routes and would require minimal buildout to connect into new buildings.

Connected public spaces with high-speed Wi-Fi exist in various locations around Detroit, including in the stations and on the cars of the QLINE light rail transportation system and throughout many parks in the downtown area.

Rocket Fiber: Detroit's Fastest, Most Client-Focused and Most Dependable Giga-Speed Internet

Detroit is home to Rocket Fiber, an advanced fiber optic internet service provider for both residential and business clients.

Rocket Fiber was recently named the third fastest internet network in the United States by Recode Magazine. Rocket Fiber's network is comprised of 99% new construction, high-count fiber optic cable that was designed a future proof infrastructure that could sustain Detroit's residential and commercial growth for decades to come.

The system is built with redundant 10 Terabit Multi-100G Edge capable core routers. Rocket Fiber's high-count fiber network is built with redundant interconnected routes with path, carrier and geographic diversity to the major transit hub in Southfield, MI and the international transit hubs in Chicago, IL and Ashburn, VA. The Chicago, Ashburn, and Southfield routes enable interconnection with Tier 1/Tier 2 providers and colocation facilities.

Services available to Detroit businesses include: up to 100-gig Internet service, MPLS, Point-to-Point/Multipoint, Wave services, VPN services, Managed Wi-Fi, Managed Network services, Voice Services and advanced IPTV services.

iii. Cellular phone coverage maps

Excellent Mobile Network Coverage in Detroit and Windsor

Detroit and Windsor offer excellent cellular phone and data coverage from Verizon, AT&T, T-Mobile, and Sprint in the United States and from Bell Canada, Rogers, and Telus in Canada. Coverage maps for these providers are provided below.

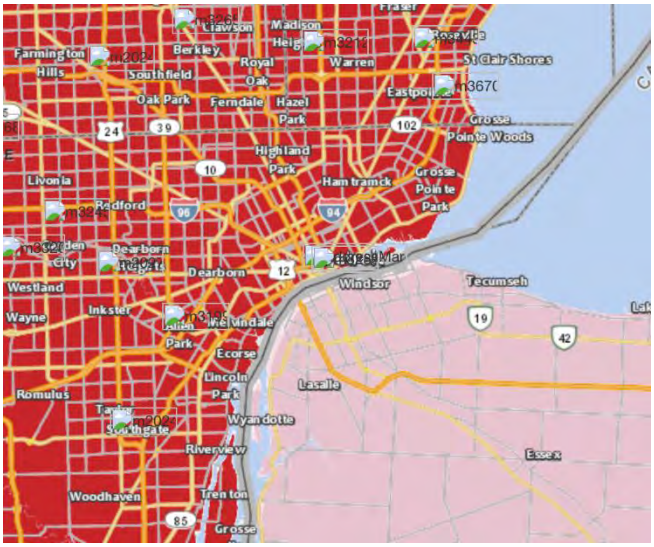
The four carriers in the United States all provide over 95.5% coverage in metro Detroit, according to Whistleout, a telecommunications search engine. This compares similarly to Seattle (94%).

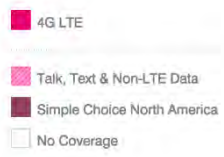
As an example of Detroit's quality mobile network coverage, Bedrock and its tenants have not needed any special hardware installation to improve coverage within Bedrock's 7 million square feet of office space. If needed, Bedrock is prepared to utilize its network infrastructure to improve coverage within buildings.

Verizon is currently undertaking significant infrastructure upgrades to allow 5G LTE coverage, the highest bandwidth technology available for cellular, across its network, including in Detroit and surrounding areas.

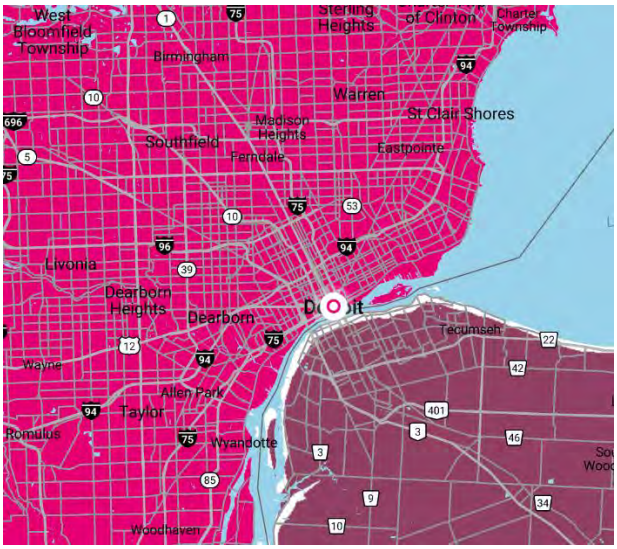
Telus and Bell Canada both offer a specific plan tailored to residents of the Windsor region that eliminates roaming charges when those residents travel to the Detroit region. And more generally, these major carriers all offer roaming plans for a daily, weekly, or monthly fee that allows for seamless travel between the United States and Canada.

Verizon (Data)

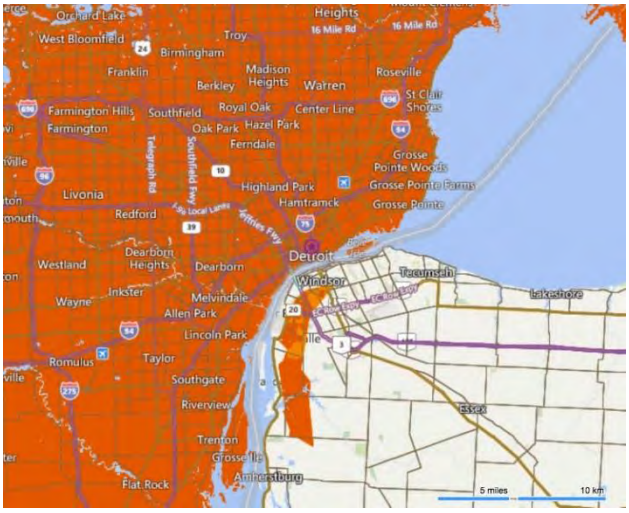




Verizon (Voice)



AT&T (Data)





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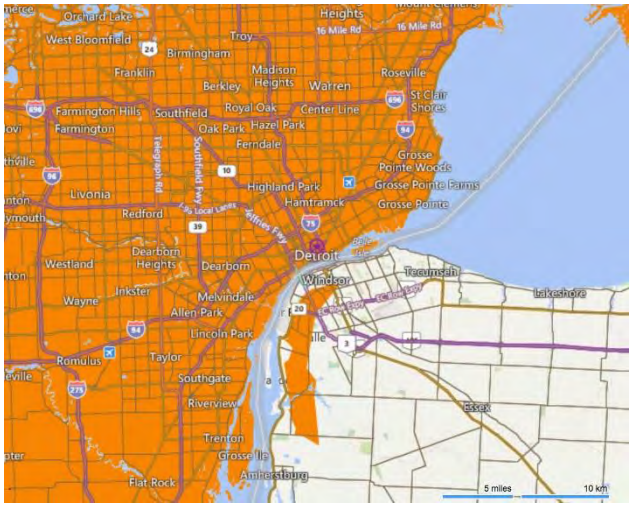
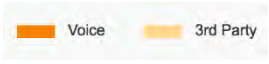




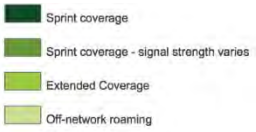
Sprint (Data)



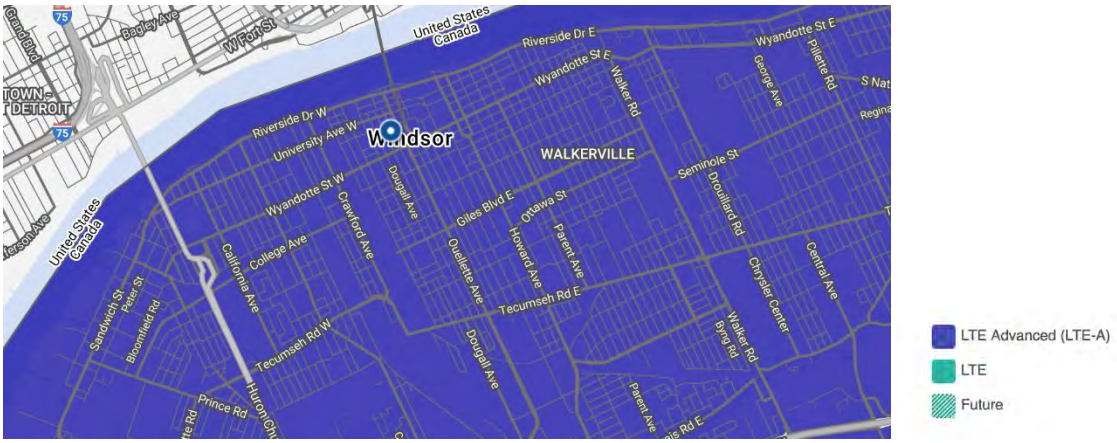


Sprint (Voice)

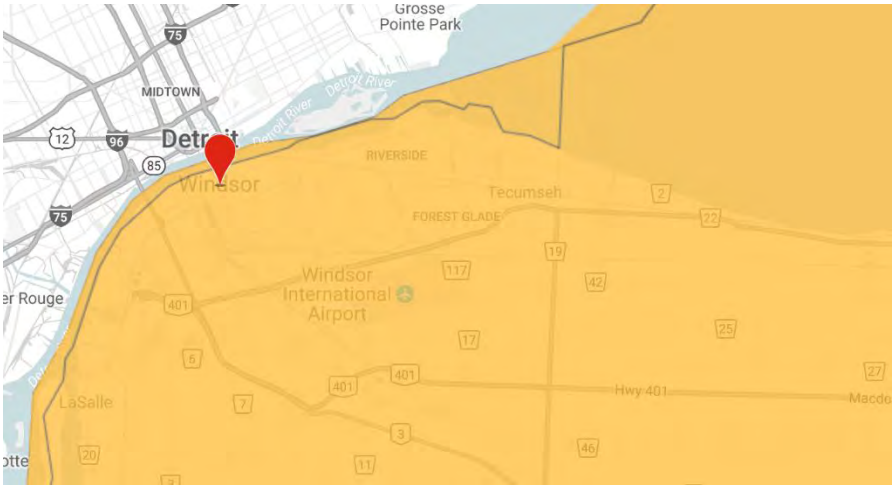




Bell Canada



Rogers



Telus



(1G) Detroit and the region offer a host of other sites.

i. Northland Mall, The District, Detroit New Center, additional options

Northland Mall

NORTHLAND - SOUTHFIELD

imagine the possibilities



125-200 ACRE DYNAMIC MIXED-USE CAMPUS

A creative mix of office, hospitality, local retail, residential and fast-casual dining

VIBRANT

An inviting community known for exceptional neighborhoods, excellent schools, and scenic parks, Southfield is a family-friendly community offering a variety of amenities for residents and businesses:

774 acres of park land and open space
333 acres of dedicated nature preserves
>25 miles of non-motorized routes

RELIABLE

Consistent and Dedicated Electrical Supply
Robust Fiber Optic Network
Flexible and Supportive Municipal Administration

FLEXIBLE

Additional 80+ acres Available for Expansion
500,000 s.f. - Adaptive Re-use Building (Centrally Located)
800,000 of Underground Space (Temperature Controlled)

INNOVATIVE

EDUCATIONAL ATTAINMENT *(Associate Degree or Higher)* –
Southfield: 46.2%, Michigan: 25.9%

HIGHER EDUCATION *(12 Higher Ed. Institutions in Southfield)* –
Lawrence Technological University - 1.5 miles
- Princeton Reviews "Best in the Midwest"
- Intel's "Top 50 Unwired Campuses"

Oakland Community College: 0.25 Miles
Wayne State University: 12.7 Miles
University of Michigan: 38.4 Miles

ADVANCED MANUFACTURING
Denso, BASF, Lear Corporation

HEALTHCARE
Ascension Health
Lawrence Technological University – Nursing School

INCUBATOR / ACCELERATOR
Automation Alley Smart Zone
LTU Collaborator





NORTHLAND - SOUTHFIELD

imagine the possibilities

125-200 ACRE DYNAMIC MIXED-USE CAMPUS

A creative mix of office, hospitality, local retail, residential and fast-casual dining

SITE

- 125-Contiguous Acres Under Single City Control - Accomodates 8+ million s.f. building program
- Convenient Access from M-10 and to
- Major Freeways (I-75, I-94, I-96)
- Surrounding Roads Recently Improved
- Approved Redevelopment Ready Community

EXPANSION

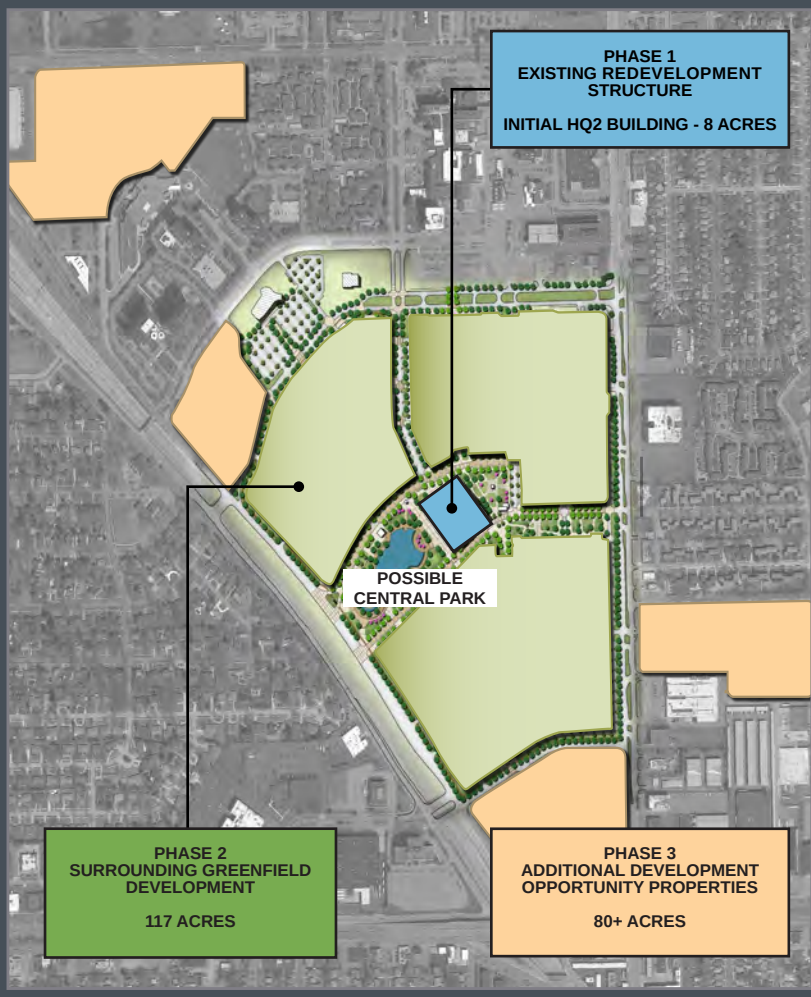
- 80+ Acres of Additional Expansion Opportunities
- Several Large Adjacent Parcels Available

BUILDING

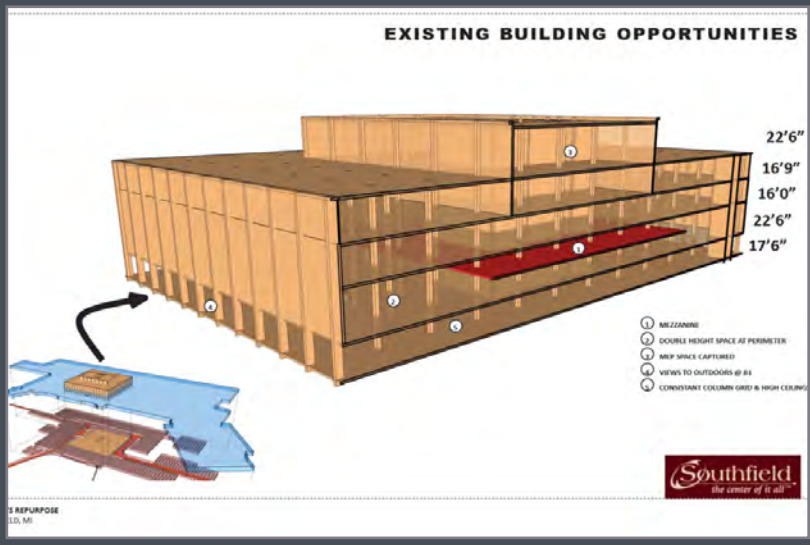
- Existing 4.5 Story Concrete Structure - 500,000 s.f.
- Floor Heights Vary Between 16'-23'
- Underground Space 800,000 s.f.
- Consistent Underground Temperature - +/- 50 Degrees

ACCESS

- 7 minutes to downtown Detroit
- Less than 30 minutes to Detroit Metropolitan Airport
- 20 minutes to Ford, General Motors and FCA



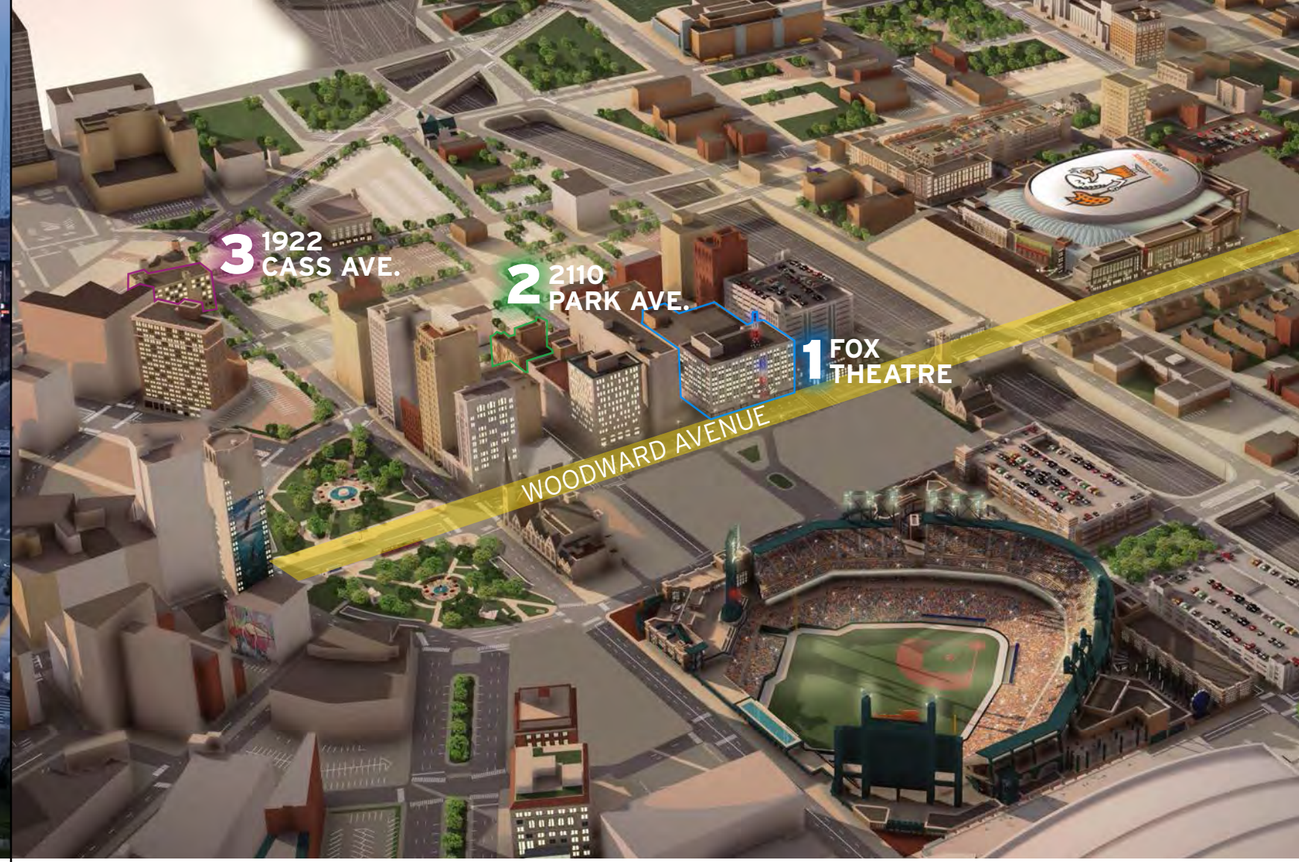




HTTPS://CITY OF SOUTHFIELD.COM/AMAZON

The District









1 **FOX THEATRE OFFICE BUILDING**
Existing +/- 90,000 SF Office Building

2 **2110 PARK AVENUE**
Existing +/- 62,000 SF Office Building

3 **1922 CASS**
Existing +/- 75,000 SF Office Building

- No rezoning required. Variances required through approval process.
- All necessary utility infrastructure services and capacity available.
- All necessary technology infrastructure services and capacity available.
- Immediate availability for development.

Owned by Olympia Development of Michigan/Ilitch Holdings Inc.

CONFIDENTIAL

THE DISTRICT DETROIT



50 BLOCKS
385 ACRES

EIGHT
RENOWNED THEATERS



FOX THEATRE


CITY THEATRE


FILLMORE DETROIT


DETROIT MASONIC TEMPLE


MOTORCITY CASINO HOTEL SOUNDBOARD


DETROIT OPERA HOUSE


GEM THEATRE


DETROIT MUSIC HALL

FOUR
PROFESSIONAL SPORTS TEAMS


DETROIT TIGERS



DETROIT RED WINGS



DETROIT PISTONS


DETROIT LIONS

THREE
SPORTS AND ENTERTAINMENT VENUES


COMERICA PARK



LITTLE CAESARS ARENA


FORD FIELD

MULTIPLE
PROGRESS IN OFFICE, EDUCATION, RESIDENTIAL & RETAIL


LITTLE CAESARS WORLD HEADQUARTERS CAMPUS EXPANSION


MIKE ILITCH SCHOOL OF BUSINESS
WAYNE STATE UNIVERSITY


THE ALHAMBRA
RESIDENTIAL



SPORTS & SOCIAL DETROIT
RESTAURANT



MIKE'S PIZZA BAR
RESTAURANT

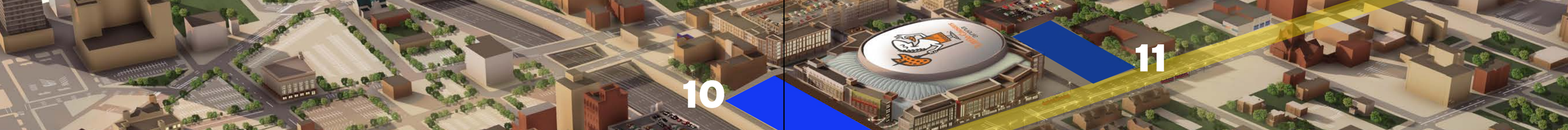


ONE 11 WEST
RESIDENTIAL



THE AMERICAN
RESIDENTIAL

CONFIDENTIAL



THE DISTRICT DETROIT

INCREDIBLE OPPORTUNITIES

4 MADISON LENNOX
Approximately 30,000 SF Developable Site

5 ADAMS STREET
Approximately 53,000 SF Developable Site

6 FINE ARTS
Approximately 25,000 SF Developable Site

7 SUPER BLOCK
Approximately 180,000 SF Developable Site

8 2301 WOODWARD AVENUE
Approximately 30,000 SF Developable Site

9 HOCKEYTOWN
Approximately 25,000 SF Developable Site

10 WOODWARD/HENRY
Approximately 25,000 SF Developable Site

11 WOODWARD/SPROAT
Approximately 70,000 SF Developable Site

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Detroit New Center

AN AMAZON CAMPUS IN

GREATER NEW CENTER

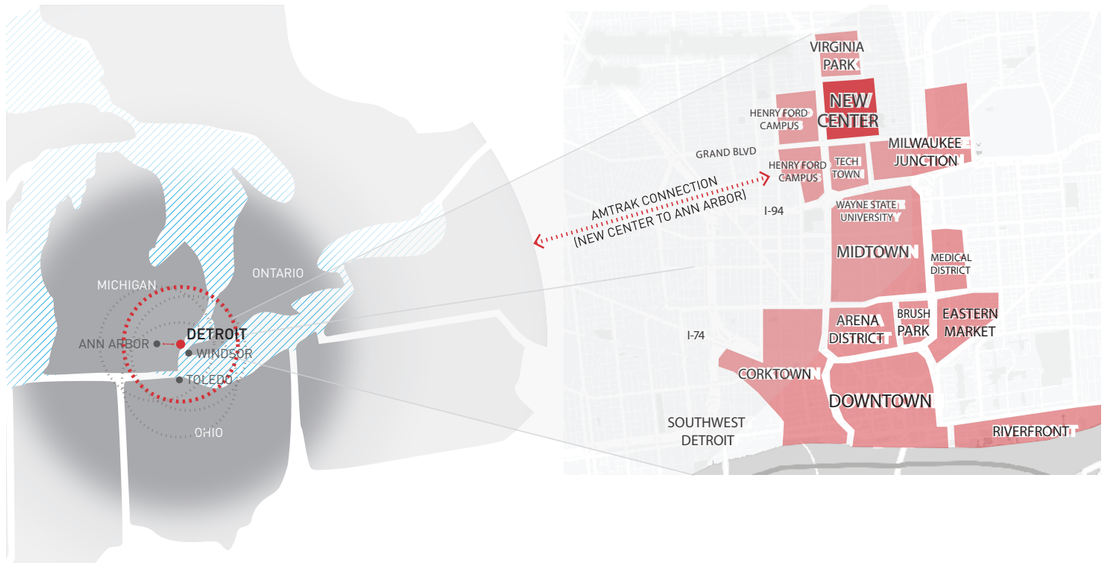
The Greater New Center area, located at the entrance to downtown Detroit, is comprised of 4 distinct neighborhoods that pinwheel around the intersection of Woodward Avenue and Grand Boulevard, one of the most important traffic arteries, connecting the city center with its surrounding neighborhoods. Nestled between I-75 to the east, MI-10 to the West and I-94 to the South, Greater New Center is easily accessible by car from all directions. Public transportation is strongest and most accessible in New Center, featuring several stops of the new light-rail, all major bus routes running through the Woodward/Grand Blvd intersection, and Detroit's Amtrak station at Woodward and Baltimore Street providing rail transportation to Ann Arbor and Chicago.

The 4 neighborhoods, New Center, TechTown, Milwaukee Junction and Northend, are seamlessly located within a square mile, but offer distinct "work, live and play" experiences. Greater New Center is the perfect representation of Detroit's economic and industrial might of the past, and the creativity and business innovation of today.



KAHN BUILDING - NEW CENTER

AN UNPARALLELED MOBILITY HUB, CONNECTING ALL OF SOUTHEAST MICHIGAN



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A CITY OF NEIGHBORHOODS

ONE INTEGRATED CAMPUS

The area is a natural campus that integrates (i) academia and education, (ii) hi-tech business incubation, (iii) high-density office and creative space, (iv) entertainment, life-style and living options.

The TechTown neighborhood is a blossoming hi-tech hub in Detroit. TechTown, an entrepreneurship center; NextEnergy, a mobility, energy and technology accelerator; Henry Ford Health System headquarters; Wayne State University's northern campus, including a new $93 million biomedical sciences building—all these forces place TechTown at the forefront of innovation in Detroit. Returning to the city, the Detroit Pistons recently chose this neighborhood to build their new headquarters and training facility.

Milwaukee Junction is the birthplace of the American automobile industry and the Silicon Valley of its time. The legacy of the neighborhood is one of ingenuity, progress and collaboration. It is home to the Ford Piquette Plant where Henry Ford built his first Model-T and laid the foundation for the assembly-line manufacturing process. Industrial, creative and gritty in nature, this neighborhood encompasses cutting edge design for new housing development, creative office space in historic car manufacturing buildings, and collaborative space for business incubation and the maker community.

New Center gets its name for its geographic location in the center of all Detroit; it is the gateway to downtown. The neighborhood is home to the Fisher Building, known as "Detroit's largest art object," which was originally conceived by the Fisher Brothers as an Ode to the American Work Ethic. Across the street from the Fisher Building is the 1 million square-foot Cadillac Place, originally home to GM's corporate headquarter, and now the State of Michigan's Detroit home.

The Northend is the low density housing neighborhood that is experiencing a strong resurgence. As is typical for Detroit neighborhoods, the Northend is supported by a strong community spirit and incorporates two large urban agriculture operations that provide "farm to table" food availability which has become to important to the urban life style.



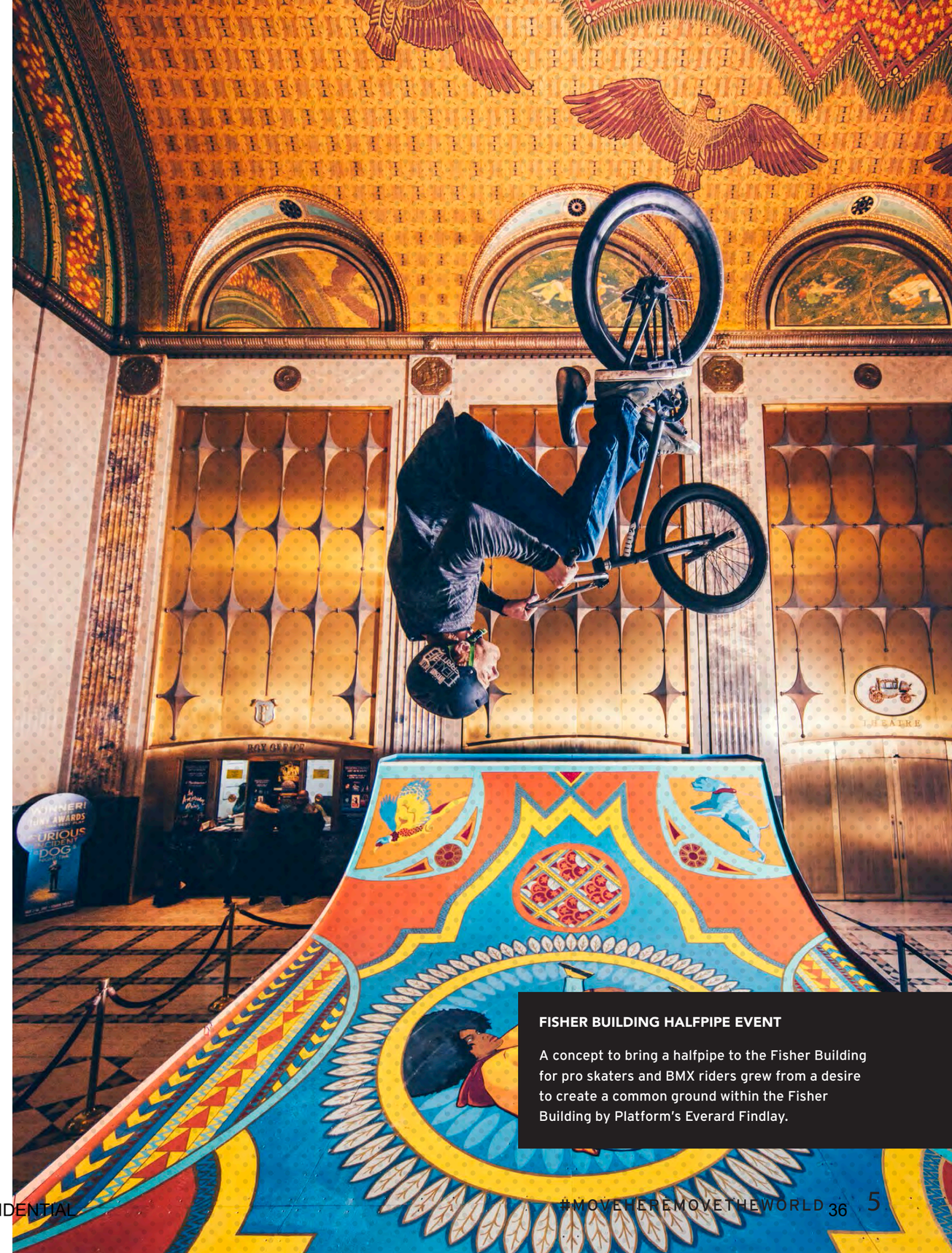
MICHIGAN URBAN FARMING INITIATIVE



FLINT EASTWOOD @ FISHER



CHROMA



FISHER BUILDING HALFPIPE EVENT

A concept to bring a halfpipe to the Fisher Building for pro skaters and BMX riders grew from a desire to create a common ground within the Fisher Building by Platform's Everard Findlay.

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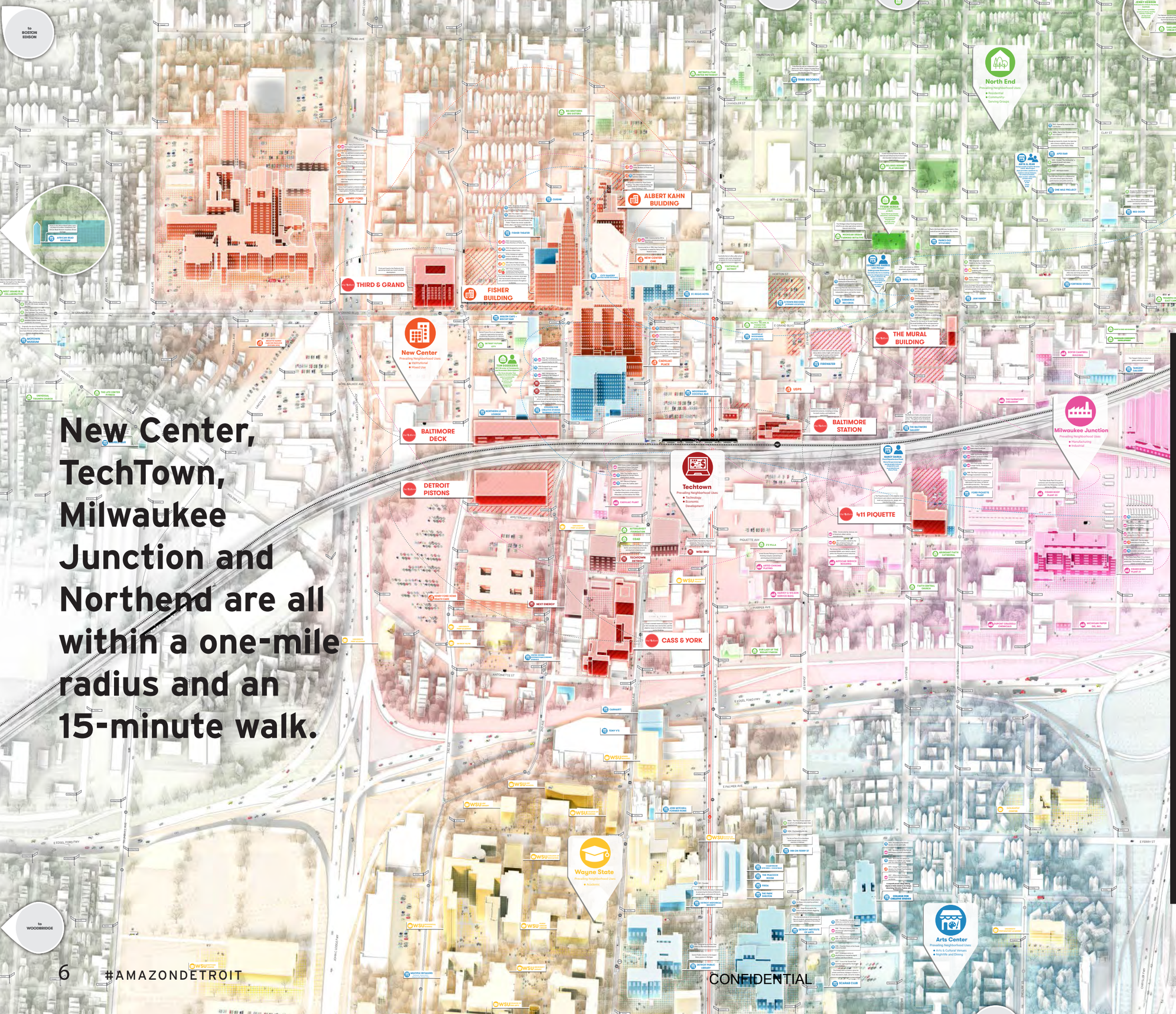

New Center, TechTown, Milwaukee Junction and Northend are all within a one-mile radius and an 15-minute walk.

AMAZON CAMPUS 2.0

The area features a professional campus setting comprised of medical, educational, governmental and corporate entities - a robust and diverse assortment of institutions with over 20,000 employees. As day transitions into night, the area energy continues with the iconic Fisher Theater featuring off-broadway musicals. To the west lies Motown's original studio and to the east the Techno Museum. Both music forms originated in Detroit.

New investment is apparent along the northern end of the Woodward Corridor. The $1.2 billion Ralph Wilson Foundation is about to move into new offices at the intersection of Woodward and Grand Blvd. Storefronts are being rehabbed and new retail is popping up. Combining underutilized office buildings with development sites, the Greater New Center area offers over 8 million square feet of available office space with affordable parking options in a district whose authenticity celebrates all that is uniquely Detroit. The Greater New Center area connects easily to Detroit Metropolitan Airport, the northwestern suburbs of Oakland County, and the Grosse Pointe area on the east side of Detroit, all within 20-30 minutes. Three Q-line light rail stops are located within Greater New Center linking it to Midtown and the CBD. Bus stops and MOGO bike share stations are abound, providing other transportation alternatives. Detroit's only Amtrak Station provides a direct connection to Ann Arbor and the University of Michigan, making this HQ campus an unparalleled mobility hub in the State.

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Additional options

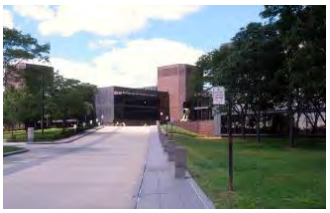

Legend
A Chesterfield Towne Center
B Kmart
C McLouth Steel
D Pinnacle
E Silverdome
F Warren Municipal Center
Downtown Detroit
Detroit Metro Airport
275
1
75
102
8
10
39
42
401
19
85
N
20 mi

a. Chesterfield Towne Center



- Site Address: 26469-26481 William P Rosso Hwy
- Municipality, County: Chesterfield Township, Macomb County
- Site Owner(s): Mark C. Sigmon
- Acreage / Square Footage: 178 acres
- Drive time to Detroit Metro Airport: 45 minutes
- Proximity to Major Highways: <1 mile to Interstate 94 and M-59
- Nearest Mass Transit: <1 mile to SMART Bus System

b. Kmart



- Site Address: 3100 W. Big Beaver Road
- Municipality, County: Troy, Oakland County
- Site Owner(s): FORBES/FRANKEL TROY VENTURES LLC, CBB-F LLC
- Acreage / Square Footage: 40 Acres / 1,006,680 sf
- Drive time to Detroit Metro Airport: 37 minutes
- Proximity to Major Highways: 1.5 miles to I-75
- Nearest Mass Transit: SMART bus routes operate adjacent to the site

c. McLouth Steel



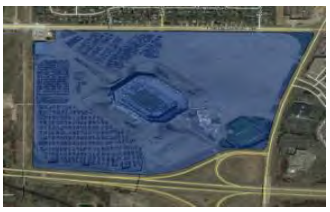
- Site Address: 1491 West Jefferson Avenue
- Municipality, County: Trenton, Wayne County
- Site Owner(s): Wayne County
- Acreage / Square Footage: ~200 Acres
- Drive time to Detroit Metro Airport: 25 minutes
- Proximity to Major Highways: 1.5 miles to arterial road; 4 miles to major highway
- Nearest Mass Transit: SMART bus routes operate adjacent to the site

d. Pinnacle Development Area



- Site Address: The square mile north of Sibley, south of Pennsylvania, east of Wahrman and west of Vining Road
- Municipality, County: Huron Township, Wayne County
- Site Owner(s): 30 parcels owned by private citizens, companies, and the county government
- Acreage / Square Footage: 640 Acres
- Drive time to Detroit Metro Airport: 2 Miles
- Proximity to Major Highways: <0.5 miles from I-275
- Nearest Mass Transit: Site is 2 miles from SMART Bus stop on Eureka Road

e. Silverdome



- Site Address: 1200 Featherstone
- Municipality, County: Pontiac, Oakland County
- Site Owner(s): Triple Investment Group
- Acreage / Square Footage: 131 acres
- Drive time to Detroit Metro Airport: 43 minutes
- Proximity to Major Highways: 0.5 miles to I-75
- Nearest Mass Transit: SMART Bus routes operate close to the site

f. Warren Municipal Center



- Site Address: 29500 Van Dyke Avenue, Warren, MI 48093
- Municipality, County: Warren, Macomb County
- Site Owner(s): City of Warren
- Acreage / Square Footage: 21 acres
- Drive time to Detroit Metro Airport: 35 minutes
- Proximity to Major Highways: <2 miles away from I-696, <.5 miles away from M-53
- Nearest Mass Transit: <.5 mile away from SMART Bus System

Community/Quality of Life

Appendix Chapters:

(2A): Companies are moving downtown to capture a greater share of the millennial workforce.

(2B): Detroiters enjoy an increasingly vibrant urban environment and the amenities of a tier-one city.

(2C) Detroit's resurgence is spreading beyond greater downtown.

(2D) Detroit is affordable, and has the capacity to maintain affordability while absorbing enormous growth.

(2E): Michigan offers vibrant communities and world-class recreation just outside of Detroit.

COMMUNITY/QUALITY OF LIFE

(2A): Companies are moving downtown to capture a greater share of the millennial workforce.

i. Workforce in the city of Detroit continues to get younger

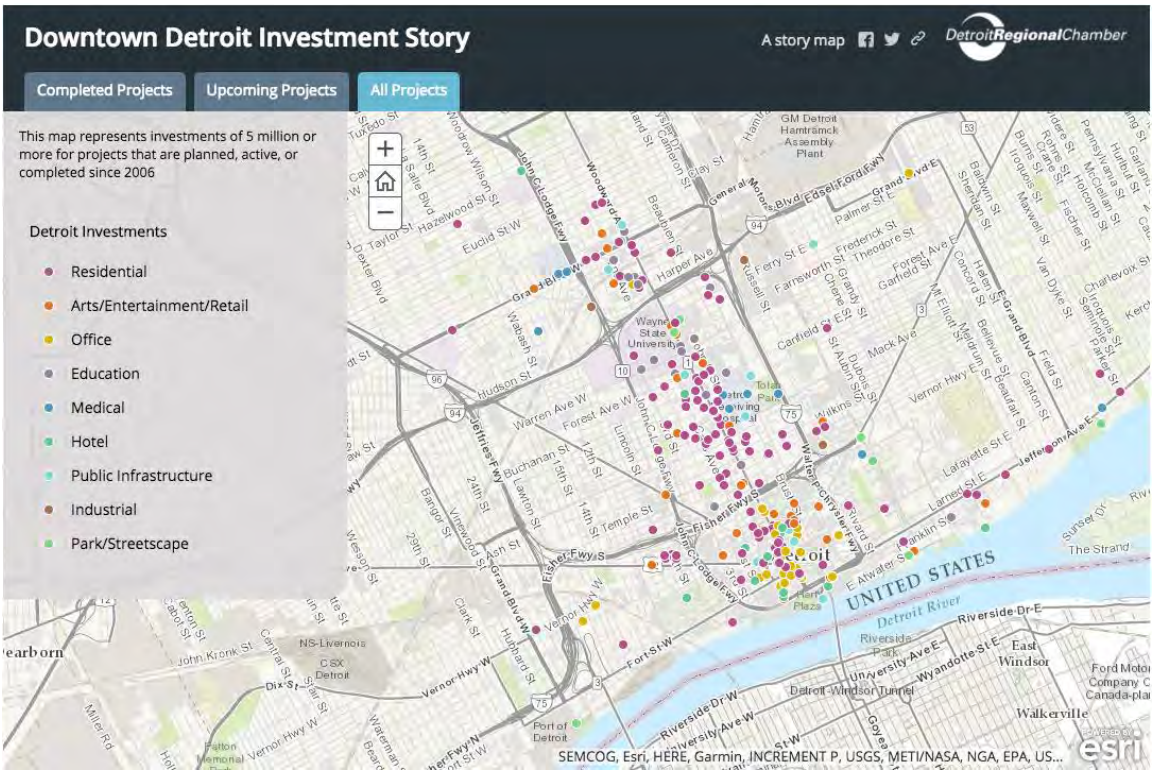
Composition of workforce in Downtown Detroit				
Market	**2010**	**% of workers**	**2015**	**% of workers**
Age 29 or younger	**10,601**	**14.9%**	**14,705**	**19.2%**
Age 30 to 54	46,614	65.4%	44,748	58.5%
Age 55 or older	14,019	19.7%	17,038	22.3%
Totals	**71,234**	**100.0%**	**76,491**	**100.0%**

Source: On the Map, 2015

(2B): Detroiters enjoy an increasingly vibrant urban environment and the amenities of a tier-one city.

i. New investment in the City of Detroit

a. Since 2006, the city of Detroit has experienced more than $13 billion in new investments across 260 major projects; this number reflects projects that received $5 million or more in investment.



Source: Detroit Regional Chamber of Commerce, Destination Detroit, 2017

ii. Greater downtown has ~8,500 units in the existing pipeline through 2022

Forecasted Detroit MSA Pipeline for New Housing Units						
Market	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Wayne County (excluding downtown)	1,085	973	297	0	180	0
Greater Downtown	**1,707**	**2,295**	**2,382**	**1,709**	**0**	**482**
Oakland County	1,994	1,749	945	0	210	0
Macomb County	1,559	651	0	0	250	0
Washtenaw County	358	780	562	56		
Windsor	1,200	1,150	-	-	-	-
Totals	**7,903**	**7,598**	**4,186**	**1,765**	**640**	**482**

Source: CoStar

iii. The city of Detroit has a variety of neighborhoods at different price points

City of Detroit Housing Prices			
Detroit Neighborhoods	**Median Sale Price**	**Median Rent**	**Price per sq/ft**
Central Business District	$320,000	$1,800	$330
Corktown	$376,000	$2,638	$303
Midtown	$319,500	$1,800	$262
Woodbridge	$169,000	$1,100	$134
Lafayette Park	$103,750	$1,500	$123
Riverfront	$142,500	$1,700	$120
Indian Village	$375,000	$1,800	$100
West Village	$150,000	$1,500	$106
The Villages (West Village and Indian Village aggregated)	$262,500	$1,650	$103
Palmer Woods	$500,000	$2,963	$112
Grandmont Rosedale	$33,250	$775	$32
Boston Edison	$205,000	$2,250	$68
New Center	$173,500	$1,050	$129
Eastern Market	$280,000	$2,100	$196
Southwest Detroit / Mexicantown	$89,950	$1,550	$68
Old Redford	$40,450	-	-
Palmer Park	$91,000	$663	$49
Rivertown	$231,250	$1,825	$190
Jefferson Chalmers	$81,050	$1,500	$61

Source: MLS Real Comp, pulled Oct 2017

Metro Detroit Residential Housing Prices				
Suburban Neighborhoods	**County**	**Median Sale Price**	**Median Rent**	**Price per sq/ft**
Dearborn	Wayne	$135,000	$1,150	$107
Grosse Pointe Park	Wayne	$373,000	$1,000	$146
Grosse Pointe	Wayne	$285,825	$1,400	$146
Grosse Pointe Farms	Wayne	$335,000	$2,000	$172
GrossePointe Shores	Wayne	$585,750	$2,475	$189
Grosse Pointe Woods	Wayne	$213,750	$1,450	$138
Canton	Wayne	$250,000	$1,650	$134
Northville	Wayne	$376,500	$1,600	$166
Birmingham	Oakland	$491,900	$2,100	$253
Royal Oak	Oakland	$230,000	$1,600	$183
Ferndale	Oakland	$150,000	$1,200	$147
St Clair Shores	Macomb	$135,000	$1,100	$115
Mount Clemens	Macomb	$99,750	$863	$77
Upper Woodward Corridor: Ferndale, Royal Oak, Birmingham, Berkley	Oakland	$228,000	$1,600	$190
Ann Arbor	Washtenaw	$307,000	$1,800	$225
Windsor	Essex	$226,262	-	-

Source: MLS Real Comp, pulled Oct 2017

(2C) Detroit's resurgence is spreading beyond greater downtown.

Project Green Light Detroit is a public-private-community partnership that uses a combination of real-time crime-fighting and community policing aimed at improving neighborhood safety and promoting the revitalization and growth of local businesses. Businesses invest in high-def cameras, lighting, and fiber technology to ensure a high quality camera feed for security. The businesses that invest receive a green light to announce the presence of technology and to invite the community to patronize their business. Such measures also serve to strengthen Detroit Police Department's (DPD) efforts to deter, identify, and solve crime.

- Analysis completed by the Crime Intelligence Unit showed that from January to June 2015, 24.76% of reported violent crimes between 10PM and 8AM occurred within 500 feet of a gas station.
- Risk Terrain Modeling supported this analysis by demonstrating that gas stations, bars/liquor establishments, grocery & convenience stores are significant risk factors for fatal and non-fatal shootings.
- Project Green Light Detroit was born out of this analysis to significantly reduce levels of fatal and non-fatal shootings and armed robberies.
- Through Project Green Light Detroit, DPD partners with businesses (gas stations, liquor stores, restaurants, etc) to:
    - Install high-quality cameras
    - Improve lighting
    - Upgrade internet bandwidth
    - Display consistent signage
- Real-time footage from cameras is fed into the Real-Time Crime Center (RTCC), where analysts can communicate to officers to improve response.
- Anticipated Results/Outcomes
    - Improved community relationships
    - January 1, 2016: 8 participating businesses
    - Today: 211 participating businesses
    - Future: All businesses open past 10PM
    - Decreased violent crime

- **Thus far, participating businesses experienced a 12.7% decrease in violent crime when comparing YTD 2017 to the same time period in 2016.***
    - We anticipate to see further gains in violent crime reduction.
- Increased case closure and convictions

*Analysis is completed for violent crimes occurring within 350 feet of a location. YTD is defined as the relevant time period from 1/1 - 8/31. For those businesses who became partners in 2017, we compared the time they went live to August 31, 2017 to the same time period in 2016.

Greater Downtown Annual Crime Data								
	2011	**2012**	**2013**	**2014**	**2015**	**2016**	**Change 2016-2011**	**Change (%)**
Violent Offenses	1,305	1,240	1,271	1,040	904	831	-474	-36%
Property Offenses	6,797	6,197	5,834	5,007	4,719	4,467	-2,330	-34%

Source: Detroit Police Department

(2D) Detroit is affordable, and has the capacity to maintain affordability while absorbing enormous growth.

i. Detroit cost of living

a. According to the 2017 Cost of Living Index created by the Council for Community and Economic Research, Detroit has the second-lowest cost of living among the top 15 largest MSAs in the US.

Cost of Living Index for Top 15 Largest MSAs in the US		
MSA size rank, by population	**Metropolitan Statistical Area**	**Cost of Living Index**
1	Manhattan, NY	235.0
2	Los Angeles - Long Beach - Anaheim, CA	146.6
3	Chicago, IL	122.5
4	Dallas, TX	100.8
5	Houston	97.7
6	Washington - Arlington - Alexandria, DC - VA	141.9
7	Philadelphia, PA	116.9
8	Miami	111.8
9	Atlanta, GA	97.8
10	Boston, MA	145.0
11	San Francisco, CA	192.3
12	Phoenix	93.8
13	**Detroit, MI**	**96.5**
14	Seattle, WA	146.9
15	Minneapolis, MN	104.8
Average of top 15 largest MSAs		***130***

Source: Council for Community and Economic Research

ii. Rent Rates

	Inventory Avg SF	**Asking Rent Per Unit**	**Asking Rent Per SF**
Greater Downtown Detroit 7.2	807	$1,017	$1.28
Downtown Seattle - Lake Union	718	$2,095	$2.91

Source: CoStar

iii. Capacity to accommodate 190 million sq. ft. of development

Downtown Core Neighborhoods Capacity Analysis								
	Development Potential Factor (FAR)*	**Total Available Acreage**	**Development Potential (SF)**	**Parking Factor**	**Devl Pt. w/Parking Reduction**	**Office**	**Residential**	**Retail**
CBD	10	131.9	57,441,120	15%	48,824,952	24,412,476	20,506,480	3,905,996
Corktown	5	85.3	18,585,600	15%	15,797,760	3,159,552	10,268,544	2,369,664
E. Riverfront	5.5	105.3	25,235,760	15%	21,450,395	4,290,079	13,942,757	3,217,559
Midtown	5	246.9	53,782,080	15%	45,714,767	9,142,954	29,714,599	6,857,215
New Center	8	104.7	36,474,240	15%	31,003,104	15,501,552	13,021,304	2,480,248
Totals:		**674.1**	**191,518,800**		**162,790,980**	**56,506,613**	**87,453,684**	**18,830,683**

Source: City of Detroit Internal Analysis

*Applies an average FAR or development potential factor consistent with existing density. Parking assumed to take 15% of total based on recent Detroit projects. Allocation of total area to office, residential and retail based on neighborhood characteristics (e.g. downtown likely to have a higher percentage of office than neighborhoods), and not meant to reflect a zoning other policy constraints.

(2E): Michigan offers vibrant communities and world-class recreation just outside of Detroit.

i. Range of high-quality school options in the city:
   a. Of approximately 100,000 students in Detroit, about half are educated by the Detroit Public Schools Community District (DPSCD) and the other half in a range of charter schools.
   b. An additional 20,000 students living in Detroit attend private, parochial, or public school in neighboring communities.
   c. The outlook for public and charter education in Detroit is positive: DPSCD is under strong and experienced leadership, a newly elected and focused school board, and the charter sector is more intentionally focused on increasing quality.
   d. In 2016-2017, almost $30 million in private philanthropy was invested in Detroit's education system. *Source: The Foundation Center*

ii. Several schools in the city of Detroit has outstanding results:
   a. Cass Technical High School is an institution in Detroit, with notable alumni like Diana Ross, Jack White, and Big Sean, who has funded a music studio for the school
      i. 15 Consecutive Years of Grand Awards at Metro Science & Engineering Fair
      ii. "Michigan Department of Education (MDE) Reward School-Ranked in the top 5% of all high schools in the state of Michigan"
   b. Detroit Achievement Academy is a free public charter school currently serving kindergarten through fourth grade students
      i. Expeditionary Learning curriculum focuses on developing and nurturing the whole child In both 2013-2014 and 2015-2016, more DAA students reached NWEA MAP nationally set targets than any other school in Detroit
   c. U of D Jesuit: Private all-boys School, grades 7-12, using a Jesuit-based curriculum to graduate students that are leaders in their communities.
      i. Alumni, parents and friends privately funded the 40,000 sq. ft. STEM facility, the largest dollar STEM investment of any high school in Michigan, in recent years.
      ii. Student-built electric-battery vehicle and prototype gasoline vehicles are #1 in the State

iii. Metro Detroit has a number of elite private and public schools
   a. Cranbrook Academy - Prestigious private boarding school in Oakland County
      i. Prestigious private boarding school
      ii. Recently launched a STEM partnership with MIT
      iii. Has committed to explore options for busing services for Detroit students attending Cranbrook
      iv. Plans to launch a new design center campus within Detroit
   b. International Academy of Macomb – public high school in Macomb
      i. International Baccalaureate curriculum
      ii. 2nd highest public school SAT scores in Michigan, virtually 0% dropout rate (Michigan average = 4.6%)
   c. Vincent Massey Secondary School – public high school in Ontario
      i. Public high school ranked in the top 6% of secondary schools in Ontario
      ii. Large, diverse student body with many clubs and activities oriented around STEM and diversity
   d. National rankings: According to Niche, four metro-Detroit public school districts rank among the top 100 school districts nationally. Those districts include: Birmingham Public Schools, Troy School District, Bloomfield Hills Schools, and Grosse Pointe Public Schools.
   e. *Source: Niche Best Schools in the US rankings*

iv. Safety in Suburban Communities
   a. Suburban communities in Wayne, Oakland, Macomb, and Washtenaw counties have been recognized broadly for their safety. 10 cities from the suburbs of Detroit were named among the 100 safest cities in America in a 2017 study released by alarms.org. Those cities included: West Bloomfield Township at #9, Rochester Hills, Shelby Township, Royal Oak, Farmington Hills, Novi, Waterford Township, Canton Township, St Clair Shores, and Sterling Heights. These cities alone represented 10% of all of the safest cities ranked nationally in this study.
   b. Source: Alarms.org, 100 safest cities in America, 2017

Labor Force

Appendix Chapters:

(3A) Detroit has a deep labor pool and one of the fastest growing STEM workforces in the country

(3B) Locating HQ2 on the border provides Amazon a unique opportunity to access Canadian and global talent.

(3C) Amazon can tap a rich regional university talent pipeline

(3D) Many of the top ranked university programs relevant to Amazon's needs are in the region.

(3F) Michigan is committing to a new $120 million investment to expand its tech workforce.

(3H) Michigan is outpacing the great lakes region at attracting and retaining talent.

(3A) Detroit has a deep labor pool and one of the fastest growing STEM workforces in the country.

i. The Detroit Regional Chamber defines the Detroit metro region as inclusive of the following counties: Genessee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Shiawassee, Washtenaw, Wayne.



ii. Metro Detroit has the 12th largest workforce in the United States in 2016

Largest MSAs by workforce, 2016		
	MSA	**Workers (000s)**
1	New York	9,073
2	Los Angeles	5,905
3	Chicago	4,453
4	Dallas	3,366
5	Washington	3,076
6	Houston	2,879
7	Philadelphia	2,720
8	Boston	2,602
9	Atlanta	2,498
10	Miami	2,474
11	San Francisco	2,320
12	Detroit	2,302
13	Phoenix	1,933
14	Seattle	1,894
15	Minneapolis	1,866

*Source: Emsi; *Detroit defined as 11 county region*

iii. Detroit STEM workforce is growing

Detroit STEM employees, 2016					
	Employees		5-year change (%, Compound Annual Growth Rate)		
	Detroit	5 hour	DET	5 hour	US
Total	2,301,731	17,111,316	1.9%	1.4%	1.9%
Engineers	75,288	244,939	6.2%	3.0%	1.2%
Computer-focused tech	69,024	422,729	3.3%	2.2%	2.8%
SDE and programmers	25,045	139,138	3.9%	2.3%	3.1%
Other computer-tech workers	43,979	283,591	3.0%	2.2%	2.6%
Engineering technicians	16,855	81,832	4.8%	1.8%	1.0%
Scientists	11,902	77,553	2.4%	1.4%	1.3%
Science technicians	7,789	39,026	3.0%	1.6%	1.1%
Physical Scientists	4,957	29,513	3.8%	1.8%	1.2%
Life Scientists	3,949	26,568	1.6%	1.5%	1.3%
Social Scientists	2,996	21,471	1.2%	0.8%	1.5%
Mathematicians	2,062	18,224	3.8%	3.3%	3.5%
Total STEM	**182,921**	**884,303**	**4.5%**	**2.3%**	**2.1%**

Source: Emsi; Detroit defined as 11 county region

iv. Detroit added the third highest number of STEM jobs by metropolitan area in the United States

STEM job growth, 2011-2016		
Rank	**MSA**	**Job growth**
1	San Francisco	58,874
2	San Jose	42,358
3	**Detroit**	**36,218**
4	New York	35,107
5	Seattle	30,686
6	Dallas	29,314
7	Boston	25,786
8	Los Angeles	24,704
9	Chicago	21,053
10	Atlanta	19,700
11	Denver	19,453
12	Austin	19,424
13	Phoenix	16,301
14	Houston	16,174
15	Portland	13,865

Source: Emsi; Detroit defined as 11 county region

v. Detroit has the most number of engineers of any metropolitan area, and experienced the fastest growth rate of any metropolitan area in the United States

Engineering Employment			
	City	Engineers, 2016	Change, 2011-2016 (Compound Annual Growth Rate)
1	**Detroit**	**75,288**	**6.2**
2	Los Angeles	65,508	0.3
3	New York	57,100	0.3
4	Houston	55,920	1.0
5	Washington	44,515	-1.1
6	San Jose	42,928	2.2
7	Boston	42,597	1.1
8	Chicago	41,734	1.1
9	Dallas	40,703	0.7
10	Seattle	38,942	1.4

Source: Emsi, Detroit defined as 11 county region

vi. Employees for occupations cited in RFP

Employees for occupations cited in RFP					
	Employees		5-year Change (%, Compound Annual Growth Rate)		
	Detroit	5-hour	Detroit	5-hour radius	US
Software Developers, Programmers	25,045	139,138	3.9	2.3	3.1
Engineers	75,288	244,939	6.2	3.0	1.2
Managers	110,623	878,896	2.4	1.6	1.9
Accountants	17,808	141,766	1.7	1.8	2.3
Legal Occupations	17,793	114,927	1.1	0.2	0.8
Office and Administrative Support	339,495	2,576,662	1.2	0.8	1.4

Source: Emsi, Detroit defined as 11 county region

vii. Population and employment within a 5-hour drive

Population and employment in 5 hour radius around Detroit		
	Population, millions	Employment, millions
Total	**47.8**	**21.7**
US	38.0	17.1
Canada	9.9	4.6

Source: Emsi, Canadian Census

(3B) Locating HQ2 on the border provides Amazon a unique opportunity to access Canadian and global talent.

Greater Windsor workforce by occupation, Q2 2017	
	Employees
Sales and service occupations	45,925
Trades, transport and equipment operators and related occupations	30,900
Occupations in manufacturing and utilities	25,375
Business, finance and administration occupations	24,250
Occupations in education, law and social, community and government services	17,525
Health occupations	17,300
Natural and applied sciences and related occupations	13,125
Management occupations	12,625
Occupations in art, culture, recreation and sport	4,300
Natural resources, agriculture and related production occupations	3,475
Total	**194,775**

Source: Statistics Canada

(3C) Amazon can tap a rich regional university talent pipeline

i.

Degrees awarded, Southeast Michigan			
	2014	**2015**	**2016**
Advanced degrees			
All	19,788	19,006	19,320
STEM	4,567	4,856	5,428
Engineering + CS	2,639	2,920	3,467
SDE	988	1,125	1,399
Business	3,606	3,176	3,310
Admin	65	62	96
Management	2,263	1,984	2,148
Accounting	578	516	507
Finance	165	145	113
Legal	2,055	1,746	1,483
Bachelor degrees			
All	34,290	35,490	36,261
STEM	9,245	9,346	10,124
Engineering + CS	4,058	4,235	4,795
SDE	1,625	1,718	2,001
Business	5,398	5,615	6,238
Admin	140	121	135
Management	1,854	2,015	2,258
Accounting	1,007	1,050	1,026
Finance	629	633	709
Legal	164	139	147
Associates degrees and certificates			
All	37,076	36,671	32,753

STEM	3,770	3,863	3,267
Engineering + CS	3,012	3,054	2,580
SDE	1,443	1,443	1,173
Business	3,020	3,195	2,905
Admin	275	255	171
Management	1,177	1,230	1,194
Accounting	517	507	497
Finance	46	39	30
Legal	314	275	157

Degrees awarded, 5 hour radius			
	2014	**2015**	**2016**
Advanced degrees			
All	125,086	123,420	124,783
STEM	22,660	24,784	27,500
Engineering + CS	13,327	15,346	17,460
SDE	6,623	7,983	9,681
Business	26,466	25,001	23,799
Admin	668	736	652
Management	16,438	15,569	15,457
Accounting	2,637	2,594	2,580
Finance	1,493	1,392	1,146
Legal	7,420	6,756	6,120
Bachelor degrees			
All	238,202	241,343	242,136
STEM	48,107	49,988	52,746
Engineering + CS	22,617	23,778	25,234
SDE	9,393	9,733	10,460
Business	45,294	45,799	46,077
Admin	1,191	1,136	1,110
Management	17,008	17,152	16,468
Accounting	7,210	7,207	7,228
Finance	5,087	5,302	5,630
Legal	444	491	479
Associates degrees and certificates			
All	214,261	210,326	195,126
STEM	22,844	22,082	20,589
Engineering + CS	18,561	17,285	15,456
SDE	9,600	8,179	6,963
Business	21,690	22,294	20,157
Admin	2,042	2,162	1,446
Management	9,050	9,552	9,455
Accounting	4,201	3,836	3,479
Finance	186	168	186
Legal	2,094	1,922	1,519

Source: Emsi

(3D) Many of the top ranked university programs relevant to Amazon's needs are in the region.

1. University of Michigan has a number of top 10 engineering programs

University of Michigan engineering program rankings		
	Undergraduate	**Graduate**
Overall undergraduate	6	5
Aerospace	2	5
Biomedical	9	10
Civil	6	9
Computer	7	6
Electrical	5	7
Environmental	2	4
Industrial	2	2
Materials	4	9
Mechanical	4	6
Nuclear	NA	1

Source: US News and World Report

ii. Michigan St. University has the top ranked undergraduate supply chain/logistics programs

Top undergraduate supply chain/logistics programs	
1	Michigan State University
2	Massachusetts Institute of Technology
3	University of Tennessee
4	Arizona State University-Tempe
4	Pennsylvania State University

Source: US News and World Report

Universities within 5 hour radius of Detroit	
	Number of schools
Total	**361**
Michigan	**72**
Including:	
University of Michigan	
Michigan State University	
Ohio	**118**
Including:	
Ohio State University	
Case Western Reserve	
Miami University	
Illinois	**67**
Including:	
Northwestern University	

University of Chicago	
University of Illinois	
Indiana	**55**
Including:	
Purdue University	
Notre Dame University	
Indiana University	
Pennsylvania	**29**
Including:	
Carnegie Mellon University	
University of Pittsburgh	
New York	**15**
Including:	
University at Buffalo	
Kentucky	**5**
Including:	
Northern Kentucky University	

Source: Emsi

Top Canadian undergraduate computer science programs	
1	University of Toronto
2	University of Waterloo
2	University of British Columbia
4	University of Alberta
5	McGill University

Source: Maclean's

(3F) Michigan is committing to a new $120 million investment to expand its tech workforce.

Introduction

Just like the transformation of the automobile industry from mechanical modes of transportation to mobility platforms, Michigan's economy has evolved and diversified. In addition to being the leading state in building vehicles, Michigan has become the world leader in the research, development and engineering of these new mobility platforms. Over 75% of the U.S. auto industry R&D happens within our borders. At the same time, we have diversified our economy with IT, renewable energy, agriculture, tourism, aerospace, defense, cyber security, and health care now sharing the spotlight with Industry 4.0 manufacturing and automobile industry's cutting-edge drive to electric and autonomous vehicles.

All businesses in Michigan, from a smart Whirlpool appliance designed in Benton Harbor, to Ford autonomous vehicle testing at M City, to a Vayu healthcare supply drone prototype test in Ypsilanti, a Consumers Energy wind farm (Cross Winds® Energy Park) in Tuscola County, agriculture data analytics start-up FarmLogs in Ann Arbor, the ICU at Mott's Children's hospital at the University of Michigan, development on the Journey to Mars Orion spacecraft at Futuristic, or the tremendous growth at SWITCH with their world renown data center hosting capabilities serving lower Michigan – IT talent is paramount.

Since 2011, K-12 education funding has increased from $10.7 billion to $12.6 billion, an increase of $1.9 billion.[1] Significant new education investments include resources for career and technical education middle college programs and equipment, and increased spending in science, technology, engineering and mathematics programs to get students excited about opportunities in these fields of study.

Where We've Been

Years before Amazon ever announced the HQ2 RFP, Governor Snyder and the State of Michigan recognized how the vision, and rapidly arriving reality, of the future was going to have a massive impact on the workforce. Michigan began working with businesses and education across the state to address the Science, Technology, Engineering, Arts and Math (STEAM) talent needs in of the Age of Information.

In 2017, the three 21st Century Commissions completed their work on the blueprint for Michigan's continued transformation. These Commissions, the first of their kind, focused on Infrastructure, Education, and the Economy, and represented a bipartisan group of businesses, cities, educators, unions, non-profits, counties, and other stakeholders. Each came to the table together to chart a path forward for all Michiganders.

The 21st Century Economy Commission stated earlier this year: "the future will be won by the communities that create a foundation for sustained, self-reinforcing economic growth, in the form of a highly skilled work force… and world class quality of life for their people."

[1] FY 2004 to FY 2017 State of Michigan State School Aid K-12 Summary of Total Appropriations

Strong talent engaged in life-long learning begins with a great education. The bar has been set high: to make Michigan a world-class education state from prenatal through postsecondary education that prepares every Michigander for success. This includes the bold and innovative commitment to make our education a competency-based learning system.

So, as other cities and states craft incentives to woo Amazon, Michigan continues to implement its Day 1.0 plan to transform our entire state into a global leader in talent generation.

Today, Michigan ranks #1 in the U.S. with the highest concentration of engineers in the U.S. with a location quotient of 2.12 and share of total employment of 2.5 percent and 3rd nationally in total number of engineers with over 104,000 as of 2016.[2]

Michigan universities produce some of the most talented STEAM graduates in the world and continue to do so at an ever-increasing rate - growing STEAM graduates by 25% since 2009 to a total of 27,028 in 2016[3]; representing almost 20% of total completers.[4]

In 2011, Michigan was ranked amongst the Great Lakes states in last in attracting people with at least a bachelor's degree. Today Michigan is first, with a net inbound migration of 28,319 bachelor's degree holders between 2014 and 2016[5]. This is higher than New York, Illinois, and Pennsylvania.

Specific to computer science and IT, Michigan is growing the talent pool at a rapid pace. Michigan has 74 institutions granting degrees and certificates in IT occupations. Since 2010, Michigan's IT completers have increased 17 percent[6]. In 2016, Michigan had total IT program completers of 5,764[7]. 49% of those completers were earning a bachelor's degree, 25% earning a master's degree, and the remainder were from credentialing programs[8]. The talent pool for computer programming continues to grow significantly in our university system with nearly 4,000 students in computer programming alone enrolled for the 2016-17 academic year.[9]

More impressive is the growth in Michigan's high school programs. Michigan has 5,884 students currently enrolled in IT-related Career Technical Education (CTE) programs.[10] This does not include students who may

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[2] *U.S. Bureau of Labor Statistics, Michigan Bureau of Labor Market Information and Strategic Initiatives (LMISI), Occupational Employment Statistics (OES) Program 2016*
[3] *National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS)*
[4] *National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS)*
[5] *U.S. Census Bureau, American Community Survey (ACS) 2013 and 2015 1-Year Estimates*
[6] *National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS)*
[7] *National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS)*
[8] *National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS)*
[9] *National Center for Education Statistics. Integrated Postsecondary Education Data System (IPEDS)*
[10] *Michigan Department of Education, Office of Career and Technical Education, MI CTE Reports* http://micteisreports.com

be learning key computer science skills in non-CTE programs. Enrollment in these programs is trending sharply upward, almost doubling from just two years ago.

Michigan CTE students are also more likely to attend college and to successfully complete their post-secondary education than the average student. Overall, there are almost 1,900 CTE programs with 108,000 participating students in Michigan[11]. Of these CTE students, 96.4% end up employed or in post-secondary education.[12]

Much of this growth has been spurred by substantial state investments in early childhood, at-risk students, early grades, high school programs, improving teacher quality, career guidance, dual enrollment, and career technical education.

The state also enjoys a unique and growing partnerships with a number of tech companies to provide training opportunities. Cisco Network Academies currently enroll over 2,900 students and expect to expand to 6,000 by 2019. Just this year, other significant partners have joined this important effort: Microsoft Technology Education and Literacy in Schools (TEALS) and the Microsoft Network Academy opened 10 schools in Michigan; Qualcomm is collaborating with the University of Michigan's College of Engineering to provide STEAM experiences to 3,000 students in Detroit and Southeast Michigan; and the Michigan Film and Digital Media Office has developed an innovative partnership with Google to bring a coding courses and modules to 7,500 4th-8th grade students across the state and will soon be growing into high schools. In the heart of the revitalized downtown Detroit, in Detroit's "Startup Row," is Grand Circus who, with Facebook, are offering free web development and coding "bootcamps" to 3,000 Michiganders.

Michigan is also home the most First Robotics teams and participating students in the US. Governor Snyder has been a visionary and passionate supporter and has invested millions of dollars to connect the exciting STEAM competition to careers in Michigan. Today, in Michigan, there are over 1,700 First Robotics, First Tech Challenge, and First Lego League teams in over 60% of the elementary, middle and high schools with over 23,000 students involved.[13] Detroit will be the home for the 2018-2020 FIRST International Championship events helping showcase and build our academic and talent pipelines.

Building on the success of First Robotics, Michigan has built and is growing a statewide high school cyber security competition. The Governor's High School Cyber Challenge has been taken up by nearly 800 students over 2 years and continues to grow rapidly.

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[11] *Michigan Department of Education, Office of Career and Technical Education, MI CTE Reports* *http://micteisreports.com*
[12] *Michigan Department of Education, Office of Career and Technical Education, MI CTE Reports* *http://micteisreports.com*
[13] Data provided by FIRST.

In reality, we have seen that talent gaps are often career awareness gaps. Initiatives like Michigan's "Going Pro campaign" is closing those gaps. The Going Pro campaign is reaching out directly to students, parents, coaches and teachers to make sure they know of the exciting and great careers available in the computer science and IT industries. These marketing efforts are targeted at the high school level to get students engaged in the IT industry and demonstrate the career paths available.

Not all talent pipelines involve K-12 schools. Other innovative programs such as our Department of Labor recognized Best Practice - Skilled Trades Training Fund, help companies pay to train new employees and upskill current employees to deal with new technology. Since its inception in 2013, over 50,000 current and new employees have been upskilled.

Additionally, Michigan is home to the 8th most registered apprenticeship programs in the county. In 2017, alone, we have nearly 15,000 active apprentices and we continue to expand into non-traditional programs such as health care, cyber security and other IT related fields.[14]

Combined, Michigan's current pipeline programs will deliver just over 37,000 talent completers between today and 2030. This falls short of what will be required to meet the needs of tomorrow, thus "The Future of Technical Talent is Now!"

Where We're Heading

While we celebrate the growth in computer science and IT talent described above, we must exponentially expand- not just for Amazon, but to position Michigan as beacon of talent, to attract to, and grow all companies in Michigan. That is why the Governor has doubled down and has created the Michigan "Marshall Plan for Talent." Outlined below is a comprehensive set of ten complementary programs to dramatically expand our pipeline of IT talent at both the entry level and in support of lifelong learning. Success will be measured by meeting the talent needs of every company without cannibalizing each other's talent and creating great, well-paying careers for Michigan citizens.

The opportunity for Amazon to locate in Michigan is very exciting. We have analyzed and identified our future talent needs. The data tells us that Michigan will need 82,280 IT related degree and certificate holders by 2030.[15] This includes Amazon's 32,000 new Amazon Web Services employees at your new HQ2 in Michigan.

To achieve this, we have identified and are implementing a number of revolutionary initiatives across multiple occupational pathways with a focus on computer science and IT for which we will be seeking

[14] U.S. Department of Labor

[15] *Michigan Bureau of Labor Market Information and Strategic Initiatives (LMISI), Short-Term and Long-Term Occupational Employment Projections U.S. Bureau of Labor Statistics, Michigan Bureau of Labor Market Information and Strategic Initiatives (LMISI), Occupational Employment Statistics (OES) Program 2016*; *The Conference Board Help Wanted OnLine® (HWOL)*. Michigan Department of Talent & Economic Development (TED) extended projections (beyond 2024) and Amazon's projected need (Boston Consulting Group).

legislative support. These initiatives involved unprecedented collaboration between a multitude of partners: K-12 public schools, community colleges, universities, training centers, business, communities, and government.

A summary of the state's commitment to these initiatives include the following programs starting in FY2019:

#	Initiative	Investment	Description	Potential Program Enrollment	Potential statewide talent pool increase, total by 2030
1	Curriculum development (Target K-12)	$15M -- $7.5M in FY19 and $7.5M in FY20	Provides competitive grants to universities and community colleges that offer IT curriculum and training. Funding may be used to develop specific curriculum needs, which can be provided regionally through partner institutions.	Boost enrollment in IT programs by 10%, resulting in 3098 additional graduates.	12,450
2	IT Career Pathways (Target Lifelong Learning)	$10M - additional federal dollars may be identified	Modeled after the successful W Michigan Health Apprenticeship program, this will provide quick-hit, stackable credential and degree programs for technical workers	2,800 trained over two years	1,904
3	K12 Partnerships and Cyber Competitions (Target K-12)	$5M in FY19, $2.5M FY20-FY30*	Partner with MICE, Cisco Academics, and industry partners to expand CS and IT programs across the state. Additionally, using FIRST robotics as a model, continue building a statewide high school cyber competition	Approximately 15,000 students per year	43,200
4	IT Teacher Training (Target K-12)	$10M	Partner with Michigan Initiative for Cybersecurity Education and the MiSTEM Network to train additional teachers in CS	Train teachers to reach 4,500 additional students per year	9,720
5	Retain Michigan's Homegrown Talent (Target Higher Ed)	$10M	Target university and community college CS and IT students and tout the benefits of putting their talents to work in-state	Engage with the 5,764 completers annually	2,520
6	Accessible Childcare Pilot	$15M	Create a public-private partnership to provide low-cost child care options for facilities of large employers in IT or STEM fields	Available to 112,230 IT workers in MI	5,600
7	CCSTEP for IT (capital grants) (Target Higher Ed/Lifelong Learning)	$15M	Provide for CCSTEP-like grants to high schools, community colleges, and universities to provide coverage for capital costs associated with launching CS and IT courses	Will produce 1,500 completers annually	9,000
8	Talent Promise (Target Higher Ed/Lifelong Learning)	$15M	Provide for an IT and CS related scholarship program for up to $750 per student earning a certificate or completing a post-secondary program	10,000 students	4,500
	Total	**$120M**		**Approximately 200,000-250,000**	**88,894**

Assumptions:

- Program funding availability begins FY 2019 Budget
- Base Program ($95M) + recurring spends of $2.5M per year FY 2020-2030 ($25M) = $120M
- Retention rate of 60% in the field of study combined with talent remaining in MI

Career Pathways Alliance

Starting with our must fundamental building blocks, we have established the Michigan Career Pathways Alliance. This is a group of over 64 stakeholders from across business and education in partnership with the State are making a number of changes to our K-12 education system, many of which are directed at increasing the talent pool for computer science and IT careers.

The Alliance initiatives include increasing meaningful exposure to, and exploration of, careers for our students, increasing individualized career counseling, and allowing computer science to count towards the two years of foreign language currently required in the curriculum.

The development of talent transcripts that will demonstrate what skills and certificates students earn while in high school, creating an easier path for computer science and IT professionals to teach CTE courses are also key components of the Alliance initiatives.

Talent Generation Partnership

The education community, regardless of size or positioning as a public or private institution, will generate technical talent based upon their ability to create, collaborate and innovate. As members of the Talent Generation Partnership, higher education partners in Michigan have come together to increase both technical talent capacity and outputs. In addition to the above concepts, we solicited innovative ideas from the educational institutions themselves. We'll take these ideas and build them into a comprehensive framework to generate even more talent capacity to ensure success for our citizens and companies. Collectively, the following is a summary of their combined commitment and support of the project:

- Commitments by over 30 universities and colleges throughout Michigan to increase undergraduate program outputs from 20%-50% in the areas of technical talent, supply chain, and other non-IT related fields but important to Amazon (see Talent Generation Partnership Letters).
- Commitments by five universities/colleges to increase their graduate programs outputs from 20%-25% in the areas of technical talent as well as in Human Resources and other professional development programs (see Talent Generation Partnership Letters).
- Commitments from over 15 community colleges and universities to increase certificate programs in support technical talent, management systems, workforce training, and mobility systems (see Talent Generation Partnership Letters).
- Commitments from nine universities and colleges that have commitment to support talent recruitment initiatives to support Amazon's talent needs (see Talent Generation Partnership Letters).

Summary

Michigan has recognized the future of talent and is committed to our groundbreaking Marshall Plan of talent development, both in new completers and opportunities for lifelong learning. Michigan's total investment of

$120 million will put our state, our residents, and businesses in our state at the forefront of the nation's economy.

Just as important as the financial investment is the "mental investment." Michigan's can-do spirit is evident in our unprecedented collaboration and engagement between business, education, community and government.

When combining Michigan's existing programs with the new statewide initiatives, will fill our talent pool with over 126,000 highly skilled and qualified IT workers by 2030.

Key to the success of Michigan is the City of Detroit and its renaissance that is attracting world-wide attention; the people, the culture, the economy, and the community are experiencing a come-back that is making a historical statement.

Come join Detroit and Michigan's renaissance and help "Move Here, Move the World".

(3H) Michigan is outpacing the great lakes region at attracting and retaining talent.

i. Michigan is leading the great lake region in net migration

Net migration of bachelor degree holders, 2014-2016*	
Great Lakes State	**Net migration**
Michigan	28,319
Pennsylvania	21,475
Ohio	14,538
Minnesota	13,916
Indiana	-967
Wisconsin	-1576
New York	-5999
Illinois	-23032

Source: American Community Survey

* Data for bachelor degree holders leaving the U.S. not available (thus not included in data)

Strategic Fit

Appendix Chapters:

(4A) Detroit is a city of innovators with relentless focus on topics relevant to Amazon.

(4B) Detroit remains the Motor City, and has claimed the driver's seat in creating the next generation of Mobility

(4C) Detroit is also a powerhouse in aerospace.

(4D) Advanced manufacturing represents a large, untapped market for the industrial application of cloud computing and Internet of Things technologies.

(4A) Detroit is a city of innovators with relentless focus on topics relevant to Amazon

i. Michigan ranks 6th in patents granted in 2015

Number of patents granted			
States	**2015**	**Year over year change (%)**	**5-year change (%, Compound Annual Growth Rate)**
California	43,609	0%	8%
Texas	10,561	-1%	6%
New York	9,391	-4%	3%
Massachusetts	7,234	2%	7%
Washington	7,038	-2%	4%
Michigan	**6,184**	**6%**	**8%**
Illinois	5,862	-1%	6%
New Jersey	5,026	-9%	3%
Florida	4,913	-2%	6%
Minnesota	4,852	-5%	4%

Source: US Patent and Trademark Office

ii. Patents granted in Michigan index heavily to Amazon's patent composition

Patent composition (% of total patent portfolio), 2015		
	Amazon (outside-in view)	**Michigan**
A61: Medical Or Veterinary Science; Hygiene	0%	10%
C07: Organic Chemistry	0%	3%
C12: Biochemistry; Microbiology; Enzymology; Genetic Engineering	0%	3%
G01: Measuring; Testing	2%	6%
G06: Computing; Calculating; Counting	**52%**	**15%**
H01: Basic Electric Elements	1%	6%
H04: Electric Communication Technique	**25%**	**11%**

Source: US Patent and Trademark Office

(4B) Detroit remains the Motor City, and has claimed the driver's seat in creating the next generation of Mobility

i. Detroit and Ann Arbor have > 40% of total U.S. mobility related patents

Patents filed in US: Vehicle Related Mobility				
2015 Rank	**MSA**	**2013**	**2014**	**2015**
1	**Detroit-Warren-Livonia, MI**	**390**	**420**	**522**
2	San Jose-Sunnyvale-Santa Clara, CA	100	135	208
3	San Francisco-Oakland-Fremont, CA	44	80	125
4	**Ann Arbor, MI**	**82**	**97**	**110**
5	Seattle-Tacoma-Bellevue, WA	98	106	95
6	Los Angeles-Long Beach-Santa Ana, CA	84	96	92
7	Chicago-Joliet-Naperville, IL-IN-WI	46	63	82
8	Peoria, IL	50	73	79
9	Boston-Cambridge-Quincy, MA-NH	31	36	48
10	New York-Northern New Jersey-Long Island, NY-NJ-PA	28	44	41
	Total	***953***	***1,150***	***1,402***

Source: US Patent and Trademark Office

ii. In 2013, Michigan companies spent +11B on Automobile R&D which was over 76% of all automobile related R&D in the U.S.

Domestic R&D performed and paid for by the companies, by select industry, by state: 2013					
Industry	**NAICS codes**	**Total**	**Largest state for industry**	**$, millions**	**Share**
Aerospace products and parts	3364	10,042	Washington	2,028	20
Automobiles, bodies, trailers, and parts	**3361, 3362, 3363**	**14,081**	**Michigan**	**10,708**	**76**
Finance and insurance	52	4,298	Illinois	1,174	27
Food manufacturing	311	4,801	Delaware	1,003	21
Mining, extraction, and support activities	21	3,602	Texas	2,693	75
Other machinery	other 333	6,098	Illinois	1,638	27
Pharmaceuticals and medicines	3254	45,891	California	11,412	25
Semiconductor and other electronic components	3344	28,576	California	15,250	53
Semiconductor machinery	333295	3,097	California	2,658	86
Software publishers	5112	34,296	California	10,258	30

Source: National Science Foundation, National Center for Science and Engineering Statistics, and US Census Bureau, Business R&D and Innovation Survey 2013

iii. 500 miles of smart public roads supporting vehicle to infrastructure communication



Source: PlanetM http://www.planetm.com/planet_m/assets/infrastructure.aspx

(4C) Detroit is also a powerhouse in aerospace.

i. Michigan ranked 2nd best state for aerospace manufacturing

Aerospace manufacturing attractiveness ranking, 2017	
Rank	**State**
1	Georgia
2	**Michigan**
3	Arizona
4	North Carolina
5	Virginia
6	Ohio
7	Florida
8	Colorado
9	Texas
10	New York

Source: PwC

ii. In 2016, Detroit had more industrial designers than any other city in the U.S.

Number of industrial designers by MSA, 2016		
Rank	**Metro area**	**Employed**
1	**Detroit**	**5,277**
2	New York	2,977
3	Los Angeles	1,849
4	Chicago	1,008
5	San Francisco	842
6	Boston	589
7	Atlanta	521
8	Grand Rapids	485
9	Philadelphia	437
10	Minneapolis	426
	All others	18,523

Source: Emsi

(4D) Advanced manufacturing represents a large, untapped market for the industrial application of cloud computing and Internet of Things technologies.

i. Advanced manufacturing is a key center of excellence for Detroit

U.S. advanced manufacturing concentration, 2016				
Rank	**City**	**Adv. mfg. establishments**	**Total establishments**	**% of total establishments**
1	**Detroit**	**2,647**	**116,560**	**2.3**
2	San Jose	1,433	71,575	2.0
3	Minneapolis	1,801	90,104	2.0
4	Houston	2,459	152,282	1.6
5	Chicago	4,162	271,732	1.5
6	Portland	1,176	86,046	1.4
7	San Diego	1,440	106,186	1.4
8	Dallas	2,301	172,067	1.3
9	Tampa	1,144	86,899	1.3
10	Phoenix	1,229	98,301	1.3

Source: Emsi

i. Michigan a leader in industrial robots

Number, change, and concentration of industrial robots in U.S. states, 2010-2015			
State	**2010**	**2015**	**Change, 2010-2015 (%, Compound Annual Growth Rate)**
Michigan	**10,913**	**27,632**	**20%**
Ohio	8,483	20,415	19%
Indiana	8,050	19,451	19%
California	7,687	17,844	18%
Texas	5,718	13,224	18%
Tennessee	3,864	10,944	23%
Illinois	4,400	10,519	19%
Kentucky	3,551	9,523	22%
Alabama	2,824	7,692	22%
North Carolina	3,071	7,485	20%

Source: Brookings analysis of Moody's Analytics data

Note: Metropolitan system totals are based on county aggregations, and the population served may deviate from Census estimates.

ii. Strategic partnerships opportunities in Detroit MSA:

Drones/UAVs		
Name	**Partners**	**Description**
American Center for Mobility	MDOT, MEDC, Ann Arbor Spark, Business Leaders for Michigan, U of M and other schools	Development of 335-acre connected and autonomous vehicle technology test center, including testing and product development, technology validation and voluntary standards development
Innovation Alliance/Ford Robotics Center	Ford, University of Michigan	New robotics laboratory focusing on autonomous vehicle research, with space for robots to fly, walk, drive, and swim
Lightweight Innovations for Tomorrow (LIFT)	National Network for Manufacturing Innovation, University of Michigan, Ohio State University, Edison Welding Institute	10,000 square foot innovation facility to accelerate transition from R&D in advanced materials to production floor
M-Air	Ford, University of Michigan	9,000 gross square feet, 50-foot high drone-testing complex that will allow researchers to test cutting-edge technologies indoors – where time-consuming FAA approval is not required -- and eliminating the need for tethers

Mobility		
Name	**Partners**	**Description**
Advanced Transportation Center	Washtenaw Community College, University of Michigan, Square One Education Network	Enables schools to meet employer and industry needs through training and education, focusing on vehicle-to-vehicle and vehicle-to-infrastructure communication
American Center for Mobility	MDOT, MEDC, Ann Arbor Spark, Business Leaders for Michigan, U of M and other schools	Development of 335-acre connected and autonomous vehicle technology test center, including testing and product development, technology validation and voluntary standards development
Center for Advanced Automotive Technology	Macomb Community College, Wayne State University	Supports local economic development by identifying funding opportunities for creation of and adaptation of curricula in advanced automotive technology programs
Center for Advanced Vehicle Design and Simulation	Western Michigan University, Eaton, L3Communications, Dana, TARDEC, Oak Ridge National Laboratory	Develop simulation tools and customize technologies to meet industry needs for simulation software
Kettering University GM Mobility Research Center	GM, Kettering University	Outdoor lab and proving ground to research and develop autonomous vehicles, hybrid and electric vehicles

MCity	University of Michigan, Ford, GM, BMW, Nissan, other OEMs, Delphi, State Farm, Intel, Ann Arbor, Planet M, MDoT, US DoT, others	Founded as Mobility Transportation Center for companies across the range of mobility and tech to test autonomous / mobility technology in real-world environment
MICHauto	MEDC, Original Equipment Suppliers Association, Center for Automotive Research, Nissan, GM, others	Provides platform for collaborations on advocacy, business attraction, and talent attraction in Michigan's automotive cluster
Michigan Connected and Automated Vehicle Working Group	MDoT, Oakland County	Development and implementation of a plan to deploy connected vehicle technologies throughout Oakland County
Michigan Tech Advanced Power Systems Research Center	Michigan Technological University, Ford, Cummins, John Deere, US DoE, US DoT	Multidisciplinary organization fostering large, collaborative,research efforts in sustainable power system technologies
Smart Belt Coalition	MDoT, Ohio Turnpike and Infrastructure, University of Michigan, Michigan State University, Ohio State University, Carnegie Mellon University, Ohio Transportation Research Center, American Center for Mobility	Establish high profile, high-impact, long-distance network of transportation innovations in connected automation; support testing, deployment, and research into applications of connected and automated vehicles
Smart Corridor	MDoT, GM, Ford, University of Michigan	Installation of sensors and cameras along interstates to "talk" to connected vehicles, providing environment for deployment of connected vehicles

Advanced manufacturing		
Name	**Partners**	**Description**
Advance Michigan	SE Michigan cities and townships, colleges and universities, Michigan Works!, among others (170+ total partners)	13-county regional partnership to catalyze and shift regional economy
Advanced Transportation Center	Washtenaw Community College, University of Michigan, Square One Education Network	Enables College to meet employer and industry needs through training and education, focusing on vehicle-to-vehicle and vehicle-to-infrastructure communication
Automation Alley	1,000 businesses, educational institutions, government entities, non-profits in southeast Michigan	Connect industry, academia and government to accelerate innovation in Industry 4.0 technologies
Center for Advanced Automotive Technology	Macomb Community College, Wayne State University	Supports local economic development by identifying funding opportunities for creation of an adaptation of curricula in advanced automotive technology programs
Lightweight Innovations for Tomorrow (LIFT)	National Network for Manufacturing Innovation, University of Michigan, Ohio State University, Edison Welding Institute	10,000 square foot innovation facility to accelerate transition from R&D in advanced materials to production floor

Creative economy		
Name	**Partners**	**Description**
Lear Innovation and Design Center	Lear, College for Creative Studies, Wayne State University	35,000 square foot facility focused on innovation and design in automotive industry

Automotive Partnerships		
Name	**Partners**	**Description**
Advance Michigan	SE Michigan cities and townships, colleges and universities, Michigan Works!, among others (170+ total partners)	13-county regional partnership to catalyze and shift regional economy
Advanced Transportation Center	Washtenaw Community College, University of Michigan, Square One Education Network	Enables schools to meet employer and industry needs through training and education, focusing on vehicle-to-vehicle and vehicle-to-infrastructure communication
American Center for Mobility	MDOT, MEDC, Ann Arbor Spark, Business Leaders for Michigan, U of M and other schools	Development of 335-acre connected and autonomous vehicle technology test center, including testing and product development, technology validation and voluntary standards development
Axia Institute	Dow, Michigan State University	Focused on cross-disciplinary research in value chain excellence, leveraging expertise from MSU and corporate partners
Center for Advanced Automotive Technology	Macomb Community College, Wayne State University	Supports local economic development by identifying funding opportunities for creation of and adaptation of curricula in advanced automotive technology programs
Center for Advanced Vehicle Design and Simulation	Western Michigan University, Eaton, L3Communications, Dana, TARDEC, Oak Ridge National Laboratory	Develop simulation tools and customize technologies to meet industry needs for simulation software
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M-Air	Ford, University of Michigan	9,000 gross square feet, 50-foot high drone-testing complex that will allow researchers to test cutting-edge technologies indoors – where time-consuming FAA approval is not required -- and eliminating the need for tethers
MCity	University of Michigan, Ford, GM, BMW, Nissan, other OEMs, Delphi, State Farm, Intel, Ann Arbor, Planet M, MDoT, US DoT, others	Founded as Mobility Transportation Center for companies across the range of mobility and tech to test autonomous / mobility technology in real-world environment
Michigan Tech Advanced Power Systems Research Center	Michigan Technological University, Ford, Cummins, John Deere, US DoE, US DoT	Multidisciplinary organization fostering large, collaborative, research efforts in sustainable power system technologies
Project Sapphire	University of Michigan, IBM	UM students and faculty to work with IBM researchers to develop a new class of conversational technologies
Smart Belt Coalition	MDoT, Ohio Turnpike and Infrastructure, University of Michigan, Michigan State University, Ohio State University, Carnegie Mellon University, Ohio Transportation Research Center, American Center for Mobility	Establish high profile, high-impact, long-distance network of transportation innovations in connected automation; support testing, deployment, and research into applications of connected and automated vehicles
Smart Corridor	MDoT, GM, Ford, University of Michigan	Installation of sensors and cameras along interstates to "talk" to connected vehicles, providing environment for deployment of connected vehicles
TechTown	Wayne State University, Henry Ford Health Systems, GM	Offers a full suite of incubation and acceleration services for tech and neighborhood businesses
University of Detroit Mercy and University of Windsor Joint JD	University of Detroit Mercy, University of Windsor	Joint JD allowing graduates to practice law in both the US and Canada
University Research Corridor	Wayne State University, Michigan State University, University of Michigan	One of the nation's top academic research clusters and the leading engine for innovation in Michigan and the Great Lakes region

Logistics

Appendix chapters:

(5A) Detroit's international airport is regional treasure with ample room to grow.

(5C) Detroit roadways have ample capacity to absorb growth.

(5D) Detroit has started investing in transit to avoid congestion as downtown grows

(5A) Detroit's international airport is regional treasure with ample room to grow.

i. DTW has the second most daily departures for any Delta hub.

Delta Airline Hubs by Daily Departures, 2016			
Rank	**Airport**	**Daily Departures**	**Destinations Served**
1	Atlanta (ATL)	1,038	224
2	**Detroit (DTW)**	**455**	**127**
3	Minneapolis/St. Paul (MSP)	439	129
4	New York City (LGA)	274	63
5	Salt Lake City (SLC)	256	90
6	New York City (JFK)	223	92
7	Los Angeles (LAX)	175	58
8	Seattle/Tacoma (SEA)	127	36
9	Cincinnati (CVG)	87	35
10	Boston (BOS)	83	21
11	Raleigh (RDU)	71	26
12	Amsterdam (AMS)	36	21
13	Tokyo (NRT)	19	17
14	Paris (CDG)	12	12
15	London (LHR)	11	12

Source: Delta Airlines (Current September 2017)

ii. DTW has the highest % of on-time performance for any airport with >20M annual departing seats.

Major U.S. Airport On-Time Performance, 2016		
Rank	**Name**	**On-time performance**
1	**Detroit**	**84.64%**
2	Atlanta	84.57%
3	Minneapolis	84.46%
4	Seattle	83.74%
5	Phoenix	82.82%
6	Charlotte	82.36%
7	Houston	82.21%
8	Denver	81.21%
9	Dallas/Fort Worth	80.16%
10	Orlando	80.12%

Source: OAG Annual on-time performance results for airlines and airports (2016)

iii. DTW has direct flights to every major city in the U.S. plus most major airports in Europe and Asia

Selection of Daily Direct Flights, Current	
Destination	**# of flights**
Seattle	**6**
New York	6
Washington DC	37
Boston	12
Austin	3
San Francisco	8
Los Angeles	23
London	2
Paris	2
Amsterdam	3
Frankfurt	2
Tokyo	1
Beijing	1
Shanghai	1
Seoul	1

Source: DTW Masterplan

iv. In 2015, DTW operated at 55% capacity.

Annual Service Volume (Flight Operations), 2015		
Year	**Existing and Forecast Aircraft Operations (thousands)**	**Potential Aircraft operations (thousands)**
2015	380	680
2020	390	680
2025	410	680
2030	420	680
2035	430	680

Source: HNTB, May 2016

(5C) Detroit roadways have ample capacity to absorb growth.

i. The TomTom Index evaluates increase in travel times due to congestion during time period compared to free flow

Increase in Travel Times Due to Congestion During Peak Time Period Compared to Free Flow						
Most Congested City (low to high)	**City**	**Overall daily congestion level**	**Morning Peak**	**Evening Peak**	**MSA Population**	**MSA Population rank**
55	**Detroit, MI**	**16%**	**23%**	**41%**	**4,297,617**	**13**
52	Minneapolis, MN	16%	27%	42%	3,551,036	15
51	Phoenix, AZ	16%	31%	36%	4,661,537	11
37	Dallas-Fort Worth	18%	33%	46%	7,233,323	4
24	Riverside, CA	22%	40%	46%	4,527,837	12
22	Philadelphia, PA	23%	37%	49%	6,070,500	7
17	Houston, TX	24%	41%	60%	6,772,470	5
14	Chicago, IL	26%	36%	57%	9,512,999	3
12	Atlanta, GA	27%	45%	65%	5,789,700	8
10	Boston, MA	28%	43%	54%	4,794,447	9
9	Washington, DC	29%	46%	62%	6,131,977	6
4	Seattle, WA	34%	54%	77%	3,798,902	14
3	New York, NY	35%	50%	62%	20,153,634	1
2	San Francisco, CA	39%	55%	73%	4,679,166	10
1	Los Angeles, CA	45%	62%	84%	13,310,447	2

Source: TomTom Index, 2016

ii. Inrix Global Traffic Scorecard measures the amount of time spent in congestion by driver and as a percentage of the overall travel time.

Driving Time Spent in Congestion					
City	**Peak**	**Daytime**	**Overall**	**MSA population**	**Population Rank**
Detroit, MI	**10%**	**5%**	**6%**	**4,297,617**	13
Phoenix, AZ	11%	4%	6%	4,661,537	12
Dallas, TX	12%	5%	7%	7,233,323	4
Philadelphia, PA	13%	7%	8%	6,070,500	7
Houston, TX	13%	5%	7%	6,772,470	5
Chicago, IL	17%	9%	10%	9,512,999	3
Atlanta, GA	18%	8%	10%	5,789,700	8
Concord, CA	19%	6%	9%	4,679,166	11
Tacoma, WA	19%	9%	10%	3,798,902	15
New York, NY	19%	12%	13%	20,153,634	1
Washington, DC	20%	9%	11%	6,131,977	6
Seattle, WA	22%	12%	13%	3,798,902	14
San Francisco, CA	22%	11%	13%	4,679,166	10
Los Angeles, CA	22%	12%	13%	13,310,447	2
Boston, MA	23%	11%	13%	4,794,447	9

Source: Inrix Global Traffic Scorecard 2016

iii. Commute times to Downtown Detroit

Travel Time to Downtown Detroit					
Direction	**10 Minutes**	**20 Minutes**	**30 Minutes**	**45 Minutes**	**60 Minutes**
Northeast	The Villages	Grosse Pointes	Warren St. Clair Shores	Mount Clemens Rochester Hills	New Baltimore Rochester
Northwest	Highland Park Hamtramck	University District Ferndale Royal Oak Southfield	Grandmont Rosedale Birmingham Troy	Pontiac/Auburn Hills Bloomfield Hills Novi Farmington	Milford Brighton Clarkston
West	Corktown	Dearborn	Romulus Livonia Wayne	Plymouth/Northville Canton Belleville Ypsilanti Ann Arbor	Chelsea Saline Dexter
South	_	Wyandotte	Taylor Woodhaven Trenton Flat Rock	Grosse Ile Monroe	Bedford Toledo, Ohio

Source: SEMCOG

iv. All sites are within 10 minutes of major highway, served by buses, and located in a walkable neighborhood. Most sites are within a half-mile of a QLINE station.

Multimodal Transportation Access				
Sites	**Interstate access within 10 Minutes**	**Bus Route**	**QLINE**	**Walkable Neighborhood**
Phase One				
One Campus Martius	Y	Y	Y	Y
First National Building	Y	Y	Y	Y
Chase Building	Y	Y	Y	Y
Chrysler House	Y	Y	Y	Y
One Woodward	Y	Y	Y	Y
1001 Woodward	Y	Y	Y	Y
1900 St. Antoine	Y	Y	Y	Y
1201 & 1217 Woodward	Y	Y	Y	Y
Fox Theatre Office Building	Y	Y	Y	Y
1922 Cass	Y	Y	Y	Y
2110 Park Avenue	Y	Y	Y	Y
511 Woodward	Y	Y	Y	Y
Hon. Paul Martin Sr. Building	Y	Y	N	Y
Windsor City Hall	Y	Y	N	Y
Canada Building	Y	Y	N	Y
Phase Two				
Monroe Blocks	Y	Y	Y	Y
Hudson's Site	Y	Y	Y	Y
Phases Three+				
Rivereast	Y	Y	Y	Y
Gratiot Sites	Y	Y	Y	Y
The District Sites	Y	Y	Y	Y
Dequindre East	Y	Y	N	Y
Ford Auditorium	Y	Y	Y	Y
Windsor Rivereast	Y	Y	N	Y

(5D) Detroit has started investing in transit to avoid congestion as downtown grows

Detroit Mobility Strategy

The City of Detroit is committed to making it easy, safe, and affordable for people in Detroit's neighborhoods and the surrounding suburban communities to get to and around the City.

1. The Detroit Commuter Advantage

Detroit's roadway network was built to accommodate a larger CBD employment population than exists today, as shown below.

Year	Employees
1950	112,000
2015	71,000

Because of this decrease of over 40,000 employees, and the fact that after 1950 roadway capacity was signfiicantly expanded with the construction of four freeways, there is currently significant capacity available on the roadway network in the Detroit region. Detroit drivers experiences the least amount of traffic congestion among the top 15 major cities in the US. It takes 10 minutes to drive to Downtown from inner-ring neighborhoods in Detroit, 20 minutes for less from outer-ring neighborhoods and inner-ring suburbs, 30 minutes or less from outer-ring suburbs and 45 minutes or less from further suburbs.

2. Preserving This Advantage

The number of people travelling to Downtown and Midtown from surrounding Detroit neighborhoods and suburban communities has increased over the last few years. The City, State, and surrounding suburban partners have added additional capacity to retain this commuting advantage offered to employees in the region, particularly with respect to transit. This includes:

- Added 2,600 bus trips per week (17% increase)
- Added 100 new buses
- Added 24-hour bus service on nine routes at a time when other major cities are cutting this service
- Added new bus services in the City, including five express routes and new routes connecting neighborhoods to Midtown
- Doubled the frequency on two routes in high growth neighborhoods and increased the frequency on ten other routes
- The QLINE streetcar service launched, running trips every 15 minutes between downtown and key neighborhoods along the Woodward corridor

In 2018, the City and region have already planned to further increase the amount of transit service provided to the area, including:

- Increasing service on ten primary corridors in City with buses arriving every fifteen minutes or better, improving wait times by 20-50%
- Speeding up buses and reducing travel times by allowing customers to purchase tickets off the bus and timing traffic signals to provide more green time for buses

- Additional regional express routes on Detroit's heaviest traveled arterials that offer travel times comparable to driving.
- Simplified fare structure and improved customer information
- Regional funding measure expected to include the following:
    - Rail connections to Ann Arbor, DTW, and additional suburban communities
    - Extending the QLINE
    - Further capital improvements on express bus routes to prevent transit to reduced travel times

3. Amazon Enhancements

We are proposing to add further capacity to accommodate additional demand from Amazon employees. If selected by Amazon, this service would include:

- Additional regional express service between Ann Arbor and Detroit and on additional arterial corridors that connect Downtown to neighborhoods in Detroit and suburban communities
- Enhanced transit service between Downtown and the Airport that will run every 10-15 minutes
- Creating a ferry service across the Detroit River, connecting Downtown Detroit and Downtown Windsor and running every 30 minute

Capital and Operating Costs

Appendix chapter:

(6A) Amazon can create a vibrant downtown campus at among the lowest occupancy costs of any major North American metropolitan area

(6C) Lower labor costs drive savings for Amazon, while employees take advantage of higher quality of life

(6A) Amazon can create a vibrant downtown campus at among the lowest occupancy costs of any major North American metropolitan area

i. Detroit features extremely low Class A office rents when compared to other major metropolitan areas.

Class A Office Real estate Performance Metrics		
MSA	**Total Occupancy**	**Average Asking Gross Rent PF**
San Francisco	91.20%	$75.82
Washington D.C	86.00%	$74.39
New York	88.10%	$70.27
Boston	92.00%	$59.67
Austin	88.40%	$56.92
Miami	84.90%	$47.01
Chicago	88.20%	$46.54
Seattle	89.90%	$45.62
Houston	79.40%	$44.49
Los Angeles	81.60%	$43.12
Denver	84.90%	$39.98
Nashville	96.80%	$31.37
Philadelphia	90.00%	$31.29
Atlanta	84.00%	$31.13
Minneapolis	85.00%	$30.39
Salt Lake city	89.50%	$29.87
Pittsburgh	86.80%	$29.61
Phoenix	81.50%	$27.68
Dallas	71.10%	$27.40
Baltimore	84.30%	$26.07
Detroit	91.80%	$22.70

Source: CoStar

(6C) Lower labor costs drive savings for Amazon, while employees take advantage of higher quality of life

i. Below average wage rate for employees in Detroit

a. Average annual salary for software development engineers in 15 U.S. markets with the most SDEs,

Top 15 MSA for SDEs by Average Salary, Q2 2017	
MSA	**Salary ($)**
San Jose-Sunnyvale-Santa Clara, CA	135,274
Seattle-Tacoma-Bellevue, WA	127,563
San Francisco-Oakland-Hayward, CA	124,541
Washington-Arlington-Alexandria, DC-VA-MD-WV	115,578
Boston-Cambridge-Newton, MA-NH	114,082
Denver-Aurora-Lakewood, CO	111,325
New York-Newark-Jersey City, NY-NJ-PA	111,212
Los Angeles-Long Beach-Anaheim, CA	109,469
Dallas-Fort Worth-Arlington, TX	104,231
Atlanta-Sandy Springs-Roswell, GA	101,316
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	99,361
Minneapolis-St. Paul-Bloomington, MN-WI	97,923
Chicago-Naperville-Elgin, IL-IN-WI	97,405
Phoenix-Mesa-Scottsdale, AZ	93,013
Detroit-11 county	**87,730**
Average Top 15 MSA	*108,668*

Source: Council for Community and Economic Research

b. Average annual salary for managers/executives in 15 metropolitan areas in the United States with most managers/executives, 2016

Top 15 MSA for Managers/Executives by Average Salary, 2016	
City	**Salary ($)**
New York	161,053
San Francisco	149,700
Washington	141,561
Houston	139,403
Philadelphia	137,220
Boston	133,180
Seattle	**131,646**
Dallas	129,902
Los Angeles	128,419
Miami	126,753
Minneapolis	124,049
Atlanta	123,209
Detroit	**119,232**
Chicago	116,630
Phoenix	105,363
Average Top 15 MSA	*131,155*

Source: Emsi

Cost of living index for 15 largest metropolitan areas in United States

Note: COLI = Cost of living Index, DET SDE Salary Equivalent is what you would need to make in a given city to be a comparable basket of housing, food, transportation, etc

Cost of Living, Q2 2017			
Rank	**City**	**COLI**	**Detroit Software Development Engineers Equivalent***
1	New York	244	214
2	San Francisco	199	175
3	Washington	159	139
4	Seattle	152	134
5	Los Angeles	152	133
6	Boston	150	132
7	Chicago	127	111
8	Philadelphia	121	106
9	Miami	116	102
10	Minneapolis	109	95
11	Dallas	104	92
12	Atlanta	101	89
13	Houston	101	89
14	**Detroit**	**100**	**88**
15	Phoenix	97	85
Average Top 15 MSA		*135*	*121*

*Source: The Council for Community and Economic Research, EMSI** Salary data from 2016

ii. Relative annual savings in Detroit as compared to Seattle

Relative annual salary savings				
Job Category	**DET Avg. Salary**	**SEA Avg. Salary**	**Employees***	***Relative savings($B)***
SDEs and computer programmers	88	128	32,000	1.27
Engineers	90	106	3,000	0.05
Managers	119	132	12,000	0.15
Accountants	79	75	900	0.00
Legal occupations	91	109	500	0.01
Office and admin support	37	43	1,600	0.01
Total			**50,000**	**1.48**

Source: Emsi; Annual salary based on extrapolated hourly wage data

*This analysis is based on one possible composition of Amazon HQ2's workforce. This employment breakdown would reflect an HQ2 with a software development focus and reflects a LinkedIn analysis of current employees at AWS

Incentives

Appendix Chapters

(7A) We propose an innovative $4 billion incentive package for HQ2

(7B) HQ2 investments in Windsor will attract additional incentives

(7C) Built-in tax advantages are available for targeted HQ2 investments in Windsor

October 18, 2017

Amazon Office of Economic Development
c/o Site Manager Golden
2121 7th Ave
Seattle, WA 98121

Re: Amazon HQ2 Incentives Proposal

Dear Amazon Leadership,

The Michigan Economic Development Corporation (MEDC), together with the Detroit Economic Growth Corporation (DEGC), are pleased to provide the following incentives proposal for the development of Amazon's HQ2. Using perhaps the most innovative existing economic development programs in the United States, we have identified a total incentive package for HQ2 valued at approximately $4.0 billion. This proposal is in addition to the support for talent development, transportation infrastructure, utility and sustainability initiatives that are addressed separately. The components of this package are summarized below and additional details on the programs and methodology used to develop estimated values follow in the attached table.

Proposal Summary

In 2017, by overwhelming bipartisan margins, Michigan created two new innovative tools to support transformational real estate development and job creation, which are tailor-made for HQ2. This proposal combines these new programs with a Renaissance Zone tax abatement, a national model for simple and comprehensive tax relief, to support the development of HQ2 and to reduce Amazon's operating costs for the next 30 years.

Transformational Brownfield Program ($364.7 million)

The Transformational Brownfield Program (TBP) authorized a new Tax Increment Financing (TIF) program with innovative tax capture mechanisms not seen anywhere in the nation. The program is designed to support mixed-use development projects that will have a transformational impact on local economic development and community revitalization based on the extent of brownfield redevelopment and growth in population, commercial activity and employment opportunities. The TBP authorizes the capture of 50% of the state personal income tax generated from residents and 50% of the withholding tax generated from new jobs located within the development site for 20 years. It also authorizes the capture of 100% of the income tax generated from the construction of the project and fully exempts the construction materials used to build the project from the state sales and use tax. All development costs are eligible for TIF reimbursement, so long as the proposed amount is economically justified during the application review.

The sites included in this proposal for HQ2 Phases 1 and 2 are expected to qualify as eligible "brownfield" sites under Michigan law. In order to estimate a specific valuation, it was assumed that Amazon fully occupies the office space in the planned "transformational projects" in the Detroit CBD that were identified

in the RFP response. As qualifying projects must be mixed-use, the estimated value of this incentive reflects the subsidy for the office space only.

Good Jobs for Michigan ($200 million)

In 2017, the legislature also enacted the Good Jobs for Michigan program to support large-scale job creation. For companies that will create over 3,000 jobs in the State of Michigan within a five-year period, the Good Jobs package allows them to be reimbursed up to 100% of the withholding tax associated with the newly created jobs for up to 10 years.

In this instance, because the State of Michigan is prepared to support combining the Good Jobs for Michigan program with the Transformational Brownfield Program, Amazon would be eligible for reimbursement of up to 50% of the withholding tax generated from the newly created jobs located within the TBP eligible property (as the other 50% is already being reimbursed through the TIF to support the office development). Newly created jobs that are located outside the TBP eligible property are eligible for reimbursement of up to 100% of the withholding tax generated as a result of the project. Based on Amazon's projected job creation, the Good Jobs for Michigan initiative would provide up to $200 million in withholding tax reimbursement to support Amazon's growth.

Michigan Renaissance Zone & Associated Local Tax Abatements ($3.33 billion)

Michigan led the nation when it created the Renaissance Zone program in 1996 with the mantra of "zero taxes, no paperwork, no bureaucracy." Twenty years later, the program continues to be defined by its simplicity and comprehensiveness. The City and State further propose to combine the Renaissance Zone with a Commercial Rehabilitation Act real property tax abatement to provide Amazon with a favorable tax environment to support its growth and investment in Michigan. The State of Michigan has current statutory authority to designate the Amazon sites as a Renaissance Zone. In total, the 30-year Renaissance Zone package is estimated to provide:

- $3.33 billion in total benefit to Amazon
- Zero real and personal property taxes for 10 years, and a 1.1% rate for the next 20 years. This 30-year average property tax rate of 0.733% is *lower than the established rate in any major U.S. city*
- Zero City corporate income tax liability
- Zero City utility users tax

Michigan Business Development Program ($40 million)

In 2012, the Michigan legislature approved the Michigan Business Development Program. This highly successful program has supported hundreds of companies and brought in billions of investment dollars to the State. It is the MEDC's flagship business development program for its ease of application, flexibility to accommodate company needs and timing, and access to cash to support the project and encourage job

growth. Michigan has committed an additional $40 million ($10 million per phase) of cash to support Amazon as it creates jobs at HQ2 under this program.

Personal Property Tax Relief ($99 million)
This automatic incentive was established under Public Act 37 of 2007 amended MCL 380.1211 to exempt Commercial Personal Property from up to 12 mills of local school district operating millage. This automatic incentive requires no paperwork and will be automatically applied to Amazon as tax savings when locating in Michigan.

We understand that upfront development costs and long-term operating costs are important factors for Amazon's HQ2 location decision. We believe that Michigan today offers the most innovative incentive programs in the nation tailored to support the development and long-term operation of transformational investments like HQ2. Of course, incentive awards are contingent upon the ability of the project to meet program requirements and are subject to standard application and approval processes. All indications are that program requirements will readily be met.

Sincerely,

Jeff Mason
Chief Executive Officer
Michigan Economic Development Corporation

Glen W. Long, Jr.
CFO/Interim President & CEO
Detroit Economic Growth Corporation

(7A) We propose an innovative $4 billion incentive package for HQ2

i. City of Detroit, Counties and State of Michigan Value Calculation

Type of incentive	Estimated value to the project	Description	Type incentive	Method of calculating value
Michigan business development Program (MBDP)	$40,000,000	The MBDP provides grants, loans, and other economic assistance to businesses that make qualified investments, create qualified new jobs, or both, in Michigan	Job-Creation Performance Based Grant	$10 million will be set aside for each HQ2 phase (I-IV). Payments will be made upon realization of agreed-upon job creation milestones. The MEDC utilizes a per job projection that takes into account community average wage, project size, and business case
Michigan Thrive - Transformational Brownfield Program (TBP)	$364,700,000	The TBP program authorizes developers to capture a broad set of tax increment revenues in order to support the development of large-scale "transformational projects". The incentive outlined is direct subsidy for Amazon's office space	Tax Capture and Reimbursement Program, authorizing capture of: 50% of state income tax withholding from employees within the development for 20 years; 50% of state income tax paid by residents within the development for 20 years; and 100% of state income tax from construction jobs on-site. Program also includes 100% exemption from sales and use taxes on construction materials used to build the project	In order to provide an estimated valuation, it was assumed that Amazon occupies the entirety of the office space in the planned "transformational projects" in the Bedrock-owned downtown buildings identified in the RFP. The total estimated amount of tax capture and exemption was estimated for these mixed-use projects. The total was then allocated to the office space on a pro-rata square footage basis to derive the value of the Amazon-related subsidy for the office development.
Good Jobs for Michigan	$200,000,000	The Good Jobs for Michigan program was created to allow large scale job creators to capture state individual income tax withholding of new employees for a period of time	50% state income tax withholding capture and reimbursement	The calculation was based on 50% of the withholding tax capture revenues for the creation of 15,000 jobs paying an average weekly wage of $1,923 for a period of 10 years.
Renaissance Zone (Property Tax Abatement)	$2,356,116,250	These geographic zones were created specifically to support significant job-creating projects and provide long term tax abatements to reduce business operating costs	Real and Personal Property Tax Abatement, which abates all property taxes except for the portion levied specifically for the payment of debt. In conjunction with the Commercial Rehabilitation Act abatement detailed below, the effective tax rate over 30 years is 0.733%, lower than any established rate in the nation.	Assumptions made for the calculation of the value are as follows: 67% of the total property investment will be real property and the remaining 33% will be personal property; total investment was discounted by 25% and the resulting values were multiplied by 50% to reflect "taxable value" under Michigan law and practice. Schedule was run for 30 years and took into account investments by phase.
Renaissance Zone (Local Corporate Income Tax Exemption)	$613,611,072	These geographic zones were created specifically to support significant job-creating projects and provide long term tax abatements to reduce business operating costs	The City of Detroit levies a 2% Corporate Income Tax which will be fully eliminated under the Renaissance Zone	Detroit's 2% corporate income tax utilizes a three-factor apportionment mechanism of 1) Detroit property and rents vs. property and rents everywhere, 2) Detroit employee wages vs employee wages everywhere, and 3) Detroit-sourced sales vs sales everywhere. HQ2 factors at full project ramp-up are assumed to be Property (15%), Wages (12.5%), and Sales (0%). Average apportionment rate is 9.16%. The benefit calculation assumes: 1% growth rate in employees each year for Amazon, after full HQ2 50,000 employee ramp up; Amazon's net income grows 20% per year for the first four years (Phase 1 & 2), grows 15% per year for years 5-10 (Phase 3), grows 10% per year for years 11-17 (Phase 4), grows 3% from that point on (rate of inflation)
Renaissance Zone (Utility Users Tax Exemption)	$54,188,243	These geographic zones were created specifically to support significant job-creating projects and provide long term tax abatements to reduce business operating costs	The City of Detroit levies a utility users tax on 5% of the amount spent by the company on electricity, natural gas, and cable	This calculation assumes: 5% of the amount spent by the firm on electricity, natural gas, and cable; used existing Class A building as an initial basis ($22.46 / employee); accounts for phasing, as Amazon occupies more office square footage, the utility users tax increases; 3% inflation rate
Commercial Rehabilitation Act (PA 210 of 2005)	$309,034,393	This program encourages the rehabilitation or redevelopment of commercial property by abating the real property taxes generated from new investment for a period of 10 years	PA 210 will eliminate the local real property debt mills not abated under the Renaissance Zone, resulting in 10 years of zero property taxes for the first 10 years of each HQ2 phase	The taxable value for the real property is frozen for the duration of the 10 year term, with the real property tax rate being reduced to 24 school mills. [NOTE: Frozen real property taxes and 24 mill school mills assessed on new investment are eliminated by the Renaissance Zone]
Personal Property Tax Relief	$99,186,121	Through tax reform in Michigan, commercial taxpayers receive a 12 mill reduction of their personal property tax assessment	Millage rate reduction for commercial taxpayers	Abatement of 12 mills of personal property tax

ii. City of Detroit, Counties and State of Michigan Eligibility and Timing

Type of incentive	Granting/Administering authority	Eligibility requirements	Administrative requirements	Anticipated timing
Michigan Business Development Program (MBDP)	While the program is operated and funded under the Michigan Strategic Fund (MSF), recommendations for awards under the program are presented by the Michigan Economic Development Corporation (MEDC) to the MSF	Qualified new jobs are Michigan residents that are employed by the Company with Michigan income tax withheld, hired after the MSF approval. A minimum of 50 qualified new jobs are required	Annual progress reports are required to be submitted online. To request a disbursement of funds, a milestone application will be required to verify job creation based on payroll documents	Based on projected job creation ramp-up, Amazon will realize the full $10 million significantly before the end of each Phase (I-IV)
Michigan Thrive - Transformational Brownfield Program (TBP)	While the program is operated and funded under the MSF, recommendations for awards under the program are presented by the MEDC to the MSF. Local government approval is required before the application is submitted to the State for review and approval.	All potential Amazon locations are anticipated to qualify as a "brownfield" under Michigan law. Eligible projects must be expected to have a transformational impact on local economic development and community revitalization, as determined by the local jurisdiction and MEDC. Must be a mixed use development project with planned integration of retail, office, residential, or hotel uses	This incentive is subject to underwriting, economic and fiscal impact analysis, annual reporting, and other requirements of the Agreement	Sales and use tax exemption is at point of sale; construction period income tax capture and reimbursement occurs annually during the construction phase; income tax capture and reimbursement occurs annually for 20 years
Good Jobs for Michigan	While the program is operated and funded under the MSF, recommendations for awards under the program are presented by the MEDC to the MSF	Company must create a minimum of 3,000 new jobs, pay an average annual wage equal or greater than the regional average wage, and maintain the number of jobs in the state prior to the expansion. MEDC must determine that the incentive will result in an overall positive return to the state.	The company submits annual job creation reports, annual progress reports, and any other requirements of the agreement	This calculation assumes the jobs are ramped up in increments of 3,000 jobs per year until the total 15,000 has been reached. Reimbursement is made annually during this period.
Renaissance Zone (Property Tax Abatement)	While the program is operated and funded under the Michigan Strategic Fund (MSF), recommendations for awards under the program are presented by the MEDC to the MSF	The MSF Board will consider designation of a Renaissance Zone for projects that will result in major qualifying investments and/or job creation in Michigan. A qualified investment means an investment to a project in Michigan, and the investment, and its terms and conditions, must be acceptable to the MSF	The MEDC will require annual reporting of data, financial information, and any other information required to facilitate reporting to the MSF Board, Department of Treasury, and Michigan legislature	30 year tax abatement
Renaissance Zone (Local Corporate Income Tax Exemption)	While the program is operated and funded under the Michigan Strategic Fund (MSF), recommendations for awards under the program are presented by the MEDC to the MSF	The MSF Board will consider designation of a Renaissance Zone for projects that will result in major qualifying investments and/or job creation in Michigan. A qualified investment means an investment to a project in Michigan, and the investment, and its terms and conditions, must be acceptable to the MSF	The MEDC will require annual reporting of data, financial information, and any other information required to facilitate reporting to the MSF Board, Department of Treasury, and Michigan legislature	30 year tax exemption
Renaissance Zone (Utility Users Tax Exemption)	While the program is operated and funded under the Michigan Strategic Fund (MSF), recommendations for awards under the program are presented by the MEDC to the MSF	The MSF Board will consider designation of a Renaissance Zone for projects that will result in major qualifying investments and/or job creation in Michigan. A qualified investment means an investment to a project in Michigan, and the investment, and its terms and conditions, must be acceptable to the MSF	The MEDC will require annual reporting of data, financial information, and any other information required to facilitate reporting to the MSF Board, Department of Treasury, and Michigan legislature	30 year tax exemption
Commercial Rehabilitation Act (PA 210 of 2005)	This incentive is administered by the local municipality	Eligible property includes commercial property that is 15 years or older, vacant property that was previous commercial property, or obsolete industrial property. If the site is vacant, the site must be located in a general business area or must contain a minimum or 3 acres.	The City must establish a Commercial Rehabilitation District through adoption of a resolution. The property owner must then apply for a Commercial Rehabilitation Exemption Certificate with the City, which entitles the property owner to the reduced tax rate.	10 year tax abatement
Personal Property Tax Relief	No approvals required for this benefit	Automatic savings to Amazon for locating in Michigan	This is an automatic incentive, no additional administrative requirements are necessary	Automatic savings

THE CITY OF WINDSOR
ONTARIO, CANADA

Onorio Colucci
Chief Administrative Officer
Office of the CAO

Tuesday, October 17, 2017

Amazon Office of Economic Development
c/o Site Manager Golden
2121 7th Ave
Seattle, WA 98121

Dear Amazon:

The City of Windsor is pleased to provide the following incentives package for the development of Amazon's HQ2. All of the programs and incentives identified below have been vetted for eligibility and Amazon meets the target sector identified for these programs. This package, coupled with provincial and federal incentives for talent development and attraction, make a strong case for a bi-national bid.

Proposal

The City of Windsor has the ability to provide financial incentives that encourage new investment in targeted economic sectors for the purposes diversifying the local economy and creating/retaining jobs. The Community Improvement Plan (CIP) allows the City to take a variety of measures that would otherwise be prohibited by Ontario's Municipal Act. This proposal strategically uses the incentives approved by council in the CIP to offer a package of up to $63 million USD locally over a 10 year period.

Economic Revitalization CIP – Tax Increment & Development Charges ($24 Million USD)

After project completion, this program will provide up to 100 percent of the municipal property tax increase created by the project for up to 10 years. Additionally, in an effort to encourage investment and revitalization in Windsor's core neighbourhoods, the city has eliminated Development Charges for developers. Councillors agreed to reduce development costs for a large core area of the city including the downtown and surrounding neighbourhoods.

Downtown Economic Revitalization CIP - Land Acquisition ($33 Million USD)

The CIP allows the City to facilitate the acquisition of property including the acquisition and preparation of land; construction, repair, rehabilitation or improvement of buildings; the sale, lease or disposal of land and buildings.

Brownfield Grant Program – Tax Increment & Rehabilitation ($7.5 USD Million)

The Brownfield's Rehabilitation Grant Program offers an annual grant equal to 70% of the City property tax increase for up to ten (10) years and a freeze of City property taxes for up to three (3) years during

and after remediation and construction. The Brownfield's Rehabilitation Grant Program starts after the Brownfield's Property Tax Assistance Program ends for a total of 13 years.

Downtown Economic Revitalization CIP – Facade Improvement Program ($23K per building)

For any facade improvements to existing buildings located with the Downtown Community Improvement Project Area this grant will provide 50% of the eligible costs of facade improvements, up to $30,000 per property.

Capital Infrastructure - Cross Border Terminal Construction ($3.3 Million USD)

They City of Windsor in collaboration with the Canadian Border Services Association would be prepared to support infrastructure funding to construct a cross border terminal used for cross border travel by ferry, gondola, or other form of connection between a Windsor – Detroit headquarters.

Development costs and operating expenditures are a significant portion of any new site investment. The City of Windsor is prepared and ready to offer these incentives to help mitigate as many factors as possible and provide a tailored local solution to some of these challenges. While formal application procedures and approvals are required we are confident that the City of Windsor will be able to assist in meeting all details. Additional program details on the incentives can be found in the attached chart.

Thank you,

Onorio Colucci,
Chief Administrative Officer
City of Windsor

October 16, 2017

Amazon Office of Economic Development
c/o Site Manager Golden
2121 7th Ave
Seattle, WA 98121

Dear Amazon:

The Windsor Essex Economic Development Corporation (WE EDC) in partnership with the Government of Canada and the Province of Ontario are pleased to provide a package of programs and incentives for the development of Amazon's HQ2. This document only includes federal and provincial programs, while the City of Windsor incentive programs are outlined in a separate letter. As Ontario has now become home to the largest IT cluster in North America outside of Silicon Valley, many of the programs below have played a central role in supporting this amazing success story.

"The talent and energy coming out of Ontario's start-up community rivals the best Silicon Valley has to offer. We have something special here: we've got the spirit of entrepreneurship, the quality of higher education, and the loyalty of the talent who want to do great things"

PayPal Canada General Manager, Paul Parisi

Talent Acquisition

The Canada Global Skills Talent Stream of the Temporary Foreign Worker Program provides innovative firms in Canada with a faster way to hire the highly skilled foreign talent they need when Canadians or permanent residents are not available. The Canadian Government has committed to a ***20-day turnaround*** for all applications under The Canada Global Skills program. A company could hire an ***employee from anywhere*** in the world within 25 days after filing an application.

The Comprehensive Economic and Trade Agreement (CETA) between Canada and the European Union came into effect September 21, 2017. The CETA Agreement includes comprehensive and modern mobility provisions for the movement of key personnel including: contractual services suppliers, intra-company personnel, senior managers, specialists, graduate trainees and business visitors. These provisions will be of great benefit to many CETA members. In addition, much like NAFTA, Amazon would now have access to a highly trained European labor force and be able to transfer workers back and forth between their European and Canadian operations.

Nominate foreign nationals for permanent resident status: The Ontario Immigrant Nominee Program (OINP) allows Ontario employers to recruit foreign nationals while giving them a pathway to permanent resident status in Canada. From 2011-2015, 77% of international graduate students who were nominated through OINP completed a graduate degree in STEM fields.

Government of Canada and Province of Ontario Incentives Total $ 41.7 million

The Government of Canada and the Province of Ontario have generous incentive programs in place to attract new companies to Canada. With respect to the Amazon HQ2 project, below are current incentive programs that are available to Amazon and do not require any new legislative approval. **Please Note: All the calculated benefits are shown in detail within the attached chart. Original calculations expressed in CAD currency have been converted to USD currency at an exchange rate of 20% and reflected below.**

Canada Ontario Job Grant

Canadian businesses of all sizes and sectors may apply for this program. Eligible training costs include tuition or other training provider fees, textbooks, software and other required materials (e.g., training clothing, tools, equipment, disability support), mandatory student fees and examination fees. Up to 2/3 of eligible training costs are covered up to a max of $10,000 per employee. There are no caps on the quantity of workers that Amazon could train under this program. ***Total calculated benefit to Amazon is $25 million.***

Jobs and Prosperity Fund

The New Economy Stream allows projects with at least $10 million in eligible costs in Ontario's key sectors (Advanced Manufacturing, Life Sciences, and Information Communication Technology) to apply. Provincial contributions may cover up to 20% of eligible project costs in grants. ***Total calculated benefit to Amazon is $6.1 million.***

Strategic Innovation Fund

This program provides repayable and non-repayable contributions to firms of all sizes across Canada's industrial and technology sectors. The Strategic Innovation Fund (SIF) contains four streams that encourage R&D that will accelerate technology transfer and commercialization of projects, processes, and services; facilitate the growth of firms in Canada and attract and retain large scale investments in Canada. ***Total calculated benefit to Amazon is $10.6 million.***

Canadian Film or Video Production Tax Credit Program (CPTC)

The CPTC program gives a refundable tax credit of 25% of qualified labour expenditures by a qualified corporation in the production of a Canadian film or video production. The qualified labour expenditures cannot be more than 60% of production cost, net of any assistance. The maximum credit available is therefore limited to 15% of production cost net of assistance.

Ontario Film and Television Tax Credit (OFTTC)

The OFTTC is a refundable tax credit based upon eligible Ontario labour expenditures incurred by a qualifying production company with respect to an eligible Ontario production. The OFTTC is generally "harmonized" with the CTPC. The OFTTC is generally calculated as 35 % of the eligible Ontario labour expenditures incurred by a qualifying production company with respect to an eligible Ontario production. An enhanced credit rate of 40% on the first $240,000 of qualifying labour expenditure is available for first-time producers.

Scientific Research and Experimental Development Program (SR&ED)

Canada offers one of the most favorable packages of R&D tax incentives among the major industrialized countries. In addition to the federal incentives, taxpayers carrying on R&D can also benefit from provincial or territorial tax credits. All R&D tax credits are available to corporations. A Canadian-controlled private corporation can earn a refundable ITC at the rate of 35% on SR&ED expenditures. On a R&D project of $160 million, a company could receive up to a combined $ 56 million in tax credits from the federal and provincial governments.

WE EDC in partnership with The Province of Ontario and the Government of Canada understand the challenges that companies currently face. The programs and incentives listed above are designed to help companies like Amazon offset some upfront expenses and the long-term costs of doing business. Equally important, our world class universities and colleges in combination with our talent acquisition programs will help meet the talent requirements needed for Amazon's HQ2. We look forward to working with our partners to showcase our regional strengths to Amazon.

Sincerely,



C. Stephen MacKenzie
Chief Executive Officer

(7B) HQ2 investments in Windsor will attract additional incentives

i. City of Windsor and Province of Ontario value calculation

Type of incentive	Estimated value to the project	Description	Type incentive	Method of calculating value
Economic Revitalization Community Improvement Plan (CIP) - Business Development Grant Program	**$17,876,528**	Grant equivalent up to 100 percent of the municipal property tax increase created by the project for up to 10 years after project completion for projects that create more than 20 jobs in the targeted sectors.	Grant	Based on a 500k sq. ft. Class 'A' office space and investment of $100 million dollars. Estimated Construction cost of $112,500,000 at $225 sq. ft. Estimated assessed value of $64,000,000 x 0.03351849 (2017 Municipal portion of the Office Tax rate) = $2,145,183 in annual municipal property taxes. Incentive amounts to $2,145,183 x 10 years = $21,451,834 CAD. This converts to $17,876,528 USD per year. The grant amount would adjust to the actual amount that the property taxes increase by as a result of the new assessment. Does not apply to the Provincial Education component of the tax bill.
Jobs and Prosperity Fund (New Economy Stream)	**$6,138,750**	The JPF supports major investments in priority sectors in Ontario, prioritizing projects that drive innovation, productivity and export development across the Ontario economy. Eligible costs can include R&D, capital costs and training. The Information and Communications Technologies sector is one of the Ontario priority sectors in the New Economy Stream.	Grant or Loan	Provincial contributions may cover up to 20% of eligible project costs for grants, or up to 40% of eligible project costs for grant/loan combo a) Training Cost Coverage - Assumes 50% of 5,000 Windsor employees will be covered under this program. It is assumed that training would take 1 month and the employee annual salary is $100,000. Therefore, salary for 1 month of training would equate to $8,333. Assumes $400/employee for the cost of materials and trainer costs to total $1,000,000. Training Benefit Calculation: 2,500 employees X $8,333 (1 month of salary) = $20,832,500. $1,000,000 for Training Costs is added to the total. $21,832,500 X 20% (Maximum Amount) = $4,366,500 (Provincial Grant) b) Capital Expenditures Coverage - Assumes $15,000,000 in expenditures for office furniture and equipment ($3,000/employee X 5,000 employees = $15,000,000) CapEx Benefit Calculation: $15,000,000 X 20% (Maximum Amount) = $3,000,000 CAD (Provincial Grant) Total Benefit Estimate is: $7,366,500 CAD. This is equivalent to $6,138,750 USD.
Strategic Innovation Fund	**$10,625,000**	This program provides repayable and non-repayable contributions to firms of all sizes across Canada's industrial and technology sectors under four main streams.	Grant, Loan or Combination	Amount of contribution will be based on the specific project facts. This benefit estimate assumes a 10% contribution. Assumes the following costs related to establishing the office location: Office equipment and furnishings at $15,000,000 andreal property costs of a 500,000 square foot facility of $112,500,000 ($225/Sq. Ft (local industry rates) X 500,000 sq. ft.) Benefit Calculation: $15,000,000 (Office Equipment) + $112,500,000 (real property) = $127,500,000. $127,500,000 X 10% (Federal Contribution) = $12,750,000 (Grant Potential) Total Benefit Estimate is: $12,750,000 CAD. This is equivalent to $10,625,000 USD.
Canada Ontario Job Grant	**$25,000,000**	Grant to offset the cost of job training incurred through eligible third-party trainers.	Grant	Up to 2/3 of eligible training costs for a max of $10,000 per employee. Company must provide remaining 1/3 of eligible costs. Benefit Calculation: Assuming that 100 employees receive specialized training every year and Amazon receives the maximum grant: 100 X $10,000 = $1,000,000 /year (Grant Benefit) Total benefit estimate is: $30,000,000 CAN ($1,000,000 per year over 30 years). This is the equivalent of $25,000,000 USD.
Economic Revitalization Community Improvement Plan (CIP) - Development Charges Grant Program	**$100,000**	Applicants successful in obtaining a CIP Business Development Grant are eligible to receive a grant to offset up to 100% of development charges paid for a project. This program may be combined with the Development Charges Exemption Policy (see below) and will cover any applicable Development Charges not exempt under the policy.	Reduction of Development Costs	Assumes a 500k sq.ft. Class A office space and investment of $100 million. The core area Development Charges are $0.24 for all Non-Residential Development (a reduction from $11.88 as result of the Development Charges Exemption Policy). 500,000 sq. ft. x $0.24 = $120,000 CAN. This is the equivalent of $100,000 USD.
Downtown Economic Revitalization Community Improvement Plan (CIP)	**$33,333,333**	The CIP allows the City to take a variety of measures to facilitate the acquisition of property including the acquisition and preparation of land; construction, repair, rehabilitation or improvement of buildings; the sale, lease or disposal of land and buildings.	Land Acquisition at Nominal Cost	Acquisition of land highlighted in RFP, valued at approximately $40 million CAD. This is the equivalent of $33,333,333 USD.
Core Area Developmental Charge Exemption Policy	**$4,950,000**	In an effort to encourage investment and revitalization in some of Windsor's core neighborhoods, the city has eliminated Development Charges for developers. Councilors agreed to reduce development costs for a large core area of the city including the downtown and surrounding neighborhoods.	Reduction of Development Costs	The core area Development Charges are $0.24 for all Non-Residential Development. This is a reduction from $11.88. This would result in a savings of $5,940,000 CAD for 500,000 sq. ft. of construction. This is the equivalent of $4,950,000 USD. The Economic Revitalization Community Improvement Plan - Development Charges Grant Program noted above would be used to eliminate the remaining balance of development charges.
Brownfield Property Tax Assistance Program	**$7,586,957**	The Brownfield Property Tax Assistance Program offers a freeze of City property taxes on a Brownfield property for up to three (3) years during and after remediation and construction. Property owners may also apply to the Province for a matching freeze of education property taxes for up to 3 years. The Brownfield's Rehabilitation Grant Program and Property Tax Assistance Program may be combined for a total of 13 years.	Property Tax Exemption	Based on a 500k sq. ft. Class A office space and investment of $100 million dollars. Estimated construction cost of $112,500,000 at $225 sq. ft. Estimated assessed value of $64,000 x 0.04741849 (2017 Office Tax rate) = $3,034,783 in annual property taxes. Incentive amounts to $3,034,783 x 3 years = $9,104,349 CAD. This is the equivalent of $7,586,957 USD.
Total	**$105,610,568**			

ii. City of Windsor and Province of Ontario eligibility and timing

Type of incentive	Administering authority	Eligibility requirements	Timing of payments	Approval timelines	Administrative requirements
Economic Revitalization Community Improvement Plan (CIP) - Business Development Grant Program	Local - City of Windsor	Amazon would fall within the eligibility parameters of this incentive program. Projects that fall within the sectors/uses set out below may be eligible for funding under the CIP: Management of Companies and Enterprises; Corporate Office; Head Office; Health & Life Sciences; Manufacturing; Research & Development; Professional Services; Business Incubator; Computer Programming Services; Computer Systems Design Services; Industrial Design Services; Research and Development; Testing Laboratories; Renewable and Alternative Energy; Manufacturing; Research and Development; Cogeneration Facilities; Renewable Energy Power Generation; Creative Industries, Performing Arts Facilities; Museums; Computer Software Developer Digital and Media Studios	Full grant realized after project completion	The tax increment will be established after the final inspection of the improvements in accordance with the Ontario Building Code and when the Municipal Property Assessment Corporation has established a new assessment value	Approval from City of Windsor Council required. City Council is the approval authority for individual program applications.
Jobs and Prosperity Fund (New Economy Stream)	Province of Ontario	Projects with at least $10 million in eligible costs in Ontario's key sectors are eligible. Key sectors include: advanced manufacturing, life sciences, ICT. Applicant companies must have a substantive operation (generally 3 years) To be selected for funding, projects must: 1) Improve Ontario's ability to compete in the global knowledge-based economy, and increase the capacity for job creation, 2) meet financial and technical due diligence, 3) align with the Jobs & Prosperity Fund's objectives to enhance productivity, increase innovation and create greater market access for Ontario firms	9 to 12 months	9 to 12 months	Assistant Deputy Minister (ADM) signed Preliminary Assessment, Phase 1 Opportunity Assessment (ADM, DM Committees) and TB negotiating mandate. Invitation to submit Business Plan to proceed to Phase 2 Financial and Technical due diligence. ADM, DM, Minister and TB approval.
Strategic Innovation Fund	Government of Canada	Stream 1: Encourage R&D that will accelerate technology transfer and commercialization of projects, processes, and services. Stream 2: Facilitate the growth of firms in Canada Stream 3: Attract and retain large scale investments Stream 4: Advance industrial research, technology demonstration through collaboration between academia, non-profit and private sector Companies of all sizes can apply for Streams 1 to 3 directly. Companies partner with a non-profit corporation in a consortia approach for Stream 4. Under Streams 1, 2 and 3, contributions will be determined through a continuous intake process. Type and size determined through a 2 step assessment process which will include a full application step. Under Stream 4, calls for applications will be made periodically.	Timing of payments is determined during project due diligence review. Claims are processed as work is completed.	90 days	Due diligence process duration varies by project Recipients must submit project claims for incurred eligible costs as work is completed. Progress reports, which detail both the project work completed and work in progress, must also be submitted with the claim.
Canada Ontario Job Grant	Government of Canada	Canadian businesses of all sizes and sectors may apply for this program. Eligible training costs include tuition or other training provider fees, textbooks, software and other required materials (e.g., training clothing, tools, equipment, disability supports), mandatory student fees and examination fees.	2 weeks from application approval	3-4 weeks typically for approvals	Online application form sent to regional Ministry Office where the majority of the training activity will take place.
Economic Revitalization Community Improvement Plan (CIP) - Development Charges Grant Program	Local - City of Windsor	Must qualify for the CIP Business Development Grant Program highlighted above. Project must create a minimum of 50 new jobs within the manufacturing sector or more than 20 jobs within any other targeted sector(s).	Immediate savings	3 week application approval	Approval from City of Windsor Council required. City Council is the approval authority for individual program applications
Downtown Economic Revitalization Community Improvement Plan (CIP)	Local - City of Windsor	Must qualify for the CIP Business Development Grant Program highlighted above.	Immediate savings	3 week application approval	Approval from City of Windsor Council required. City Council is the approval authority for individual program applications
Core Area Development Charge Exemption Policy	Local - City of Windsor	The area that has the elimination of development charges for industrial or commercial construction is from Sandwich in the west to Pillette Road in the east, and from the riverfront to Tecumseh Road in the south. The downtown core where Amazon developments are proposed is within these boundaries.	Immediate savings	Immediately recognized as savings to Developer	None
Brownfield Property Tax Assistance Program	Local and Provincial - City of Windsor and Ontario	Any property located in the city that is contaminated with respect to the Ministry of Environment standards as to the proposed use of the property. If an entity must clean up a site to meet the Provincial standards prior to it being able to be redeveloped, they are likely eligible to recover those costs through the incentive programs.	Immediate savings	3 week local application approval. 6-8 weeks for provincial approval.	Approval from City of Windsor Council required. City Council is the approval authority for individual program applications

(7C) Built-in tax advantages are available for targeted HQ2 investments in Windsor

i. Federal/Provincial R&D credit programs
   a. Canada offers support for R&D in the form of indirect and direct funding, including support for research programs at university and research centers. The largest program, with approximately CAD 3 billion of investment per year, is the Scientific Research and Experimental Development (SR&ED) program for eligible R&D work carried on in Canada
   b. Incentives for SR&ED, in the form of deductions and tax credits, are available to corporations, individuals, general partners of a partnership, and trusts that carry on eligible activities in Canada. The multiple credits, which can be combined, are as follows:
      i. Federal investment tax credits are earned at 15% of qualified research expenditures. These ITCs can be used to offset federal taxes payable in the taxation year, with unused ITCs available to be carried forward 20 years and carried back three years.
      ii. Qualifying corporations can claim a non-refundable tax credit on eligible scientific research and experimental development expenditures performed in Ontario to reduce their Ontario corporate income tax payable. For taxation years that commence after May 31, 2016, the tax credit rate is 3.5 per cent.
      iii. Qualifying corporations can claim a refundable tax credit for qualified expenditures on scientific research and experimental development performed in Ontario. For taxation years that commence after May 31, 2016, the tax credit rate is 8 per cent.
   c. *Source: Windsor Essex Economic Development Corporation; Deloitte 2017 Survey of Global Investment and Innovation Incentives*

Members of Bid Committee

1. **Tonya Allen,** The Skillman Foundation
2. **Gerry Anderson,** DTE Energy
3. **Dennis Archer, Jr.,** Ignition Media Group
4. **Tom Bain,** Essex County
5. **Rich Baird,** Office of the Governor
6. **Mary Barra,** General Motors Company
7. **Sandy Baruah,** Detroit Regional Chamber
8. **Scott Benson,** City of Detroit
9. **Mike Bishop,** U.S. Congress
10. **Brian Calley,** State of Michigan
11. **Joann Chavez,** Michigan Hispanic Chamber
12. **Norma Coleman,** Mayor's Office, City of Windsor
13. **Jon Cotton,** Meridian Health Plan
14. **Matt Cullen,** JACK Entertainment
15. **Drew Dilkens,** Mayor, City of Windsor
16. **Debbie Dingell,** U.S. Congress
17. **David DiRita,** The Roxbury Group
18. **Mike Duggan,** Mayor, City of Detroit
19. **Dave Egner,** The Ralph C. Wilson, Jr. Foundation
20. **Lena Epstein,** Vesco Oil Corp.
21. **Warren Evans,** County Executive, Wayne County
22. **Lawrence Garcia,** Cesar Chavez Academy
23. **Antoine Garibaldi,** University of Detroit Mercy
24. **Dan Gilbert,** Rock Ventures and Quicken Loans
25. **Mark Hackel,** County Executive, Macomb County
26. **Ken Harris,** National Business League
27. **Joe Hinrichs,** Ford Motor Company
28. **Chris Ilitch,** Illitch Holdings, Inc.
29. **Hiram Jackson,** Real Time Media
30. **John James,** James Group International
31. **Brenda Jones,** City of Detroit
32. **Paul Krutko,** Ann Arbor Spark
33. **Eric Larson,** Downtown Detroit Partnership
34. **Wright Lassiter,** Henry Ford Health System
35. **Brenda Lawrence,** U.S. Congress
36. **Tom Lewand,** Office of the Mayor, City of Detroit
37. **Tom Lewand, Jr.,** Shinola
38. **Pamela Lewis,** Community Foundation for Southeast Michigan
39. **Daniel Loepp,** Blue Cross Blue Shield of Michigan
40. **Conrad Mallett, Jr.,** Detroit Sinai Grace Hospital
41. **Sergio Marchionne,** Fiat Chrysler Automobiles
42. **Dave Meador,** DTE Energy
43. **LaJune Montgomery-Tabron**, W.K. Kellogg Foundation
44. **Jim Nicholson, Sr.,** PVS Chemicals
45. **Jerry Norcia,** DTE Energy
46. **Cindy Pasky,** Strategic Staffing Solutions
47. **Brooks Patterson,** County Executive, Oakland County
48. **Roger Penske,** Penske Corporation
49. **Gary Peters,** U.S. Senator
50. **Sandy Pierce,** Huntington Bank
51. **Rip Rapson,** The Kresge Foundation
52. **Rick Rogers,** College for Creative Studies
53. **Doug Rothwell,** Business Leaders for Michigan
54. **Mark Schlissel,** University of Michigan
55. **Lou Anna Simon,** Michigan State University
56. **Matt Simoncini,** Lear Corporation
57. **Debbie Stabenow,** U.S. Senator
58. **KB Stallworth,** Black Caucus Foundation
59. **Anthony Tedeschi,** Detroit Medical Center
60. **David Trott,** U.S. Congress
61. **Matt Vankuiken,** Office of Senator Debbie Stabenow
62. **Nikolai Vitti,** Detroit Public Schools
63. **Alan Wildeman,** University of Windsor
64. **Roy Wilson,** Wayne State University
65. **Frederick Zorn,** City of Southfield