# APPENDIX



# NEW YORK METRO AREA AMAZON HQ2 RFP RESPONSE

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# NEW YORK METRO AREA



### **EXHIBIT 1A**

# **New York State's Computer Science Education Initiatives**

#### **ACCOMPLISHMENTS TO DATE**

- In his 2017 State of the State, Governor Cuomo highlighted the importance of computer science education and outlined plans to support the expansion of computer science education through private sector partnerships.
- New York State has invested \$10 million a year in Early College High School Programs, such as P-TECH, an innovative program that connects high school, college, and connections to employment through college and industry partnerships. Students graduate with an associate's degree at no cost to their families. There are now 32 P-TECHs across the state.
- In 2017, State has committed an additional \$6 million to expand PTECH/ECHS programs to include pathways to education and employment in the tech sector, with a preference for programs with a focus on computer science.
- In 2017, New York State passed the Excelsior Scholarship. The first-in-the-nation program that makes NYS public universities tuition-free for families making up to \$125,000 per year.
- In 2014, New York initiated the \$2 billion Smart Schools Bond Act program to equip K-12 schools with 21st century technology including wireless connectivity, high-speed internet, and hand-held devices. Every school district in the State received an allocation under this program.
- In 2013, New York started the successful Master Teacher program, which provides a \$15,000 stipend for four years for highly effective STEM teachers in order to recruit and retain STEM teachers. The most recent round of awards will include a preference for computer science teachers.
- In 2014, New York launched the NYS STEM Incentive Program, which provides a full SUNY tuition scholarship to the top 10 percent of students in each NYS high school if they pursue a STEM degree

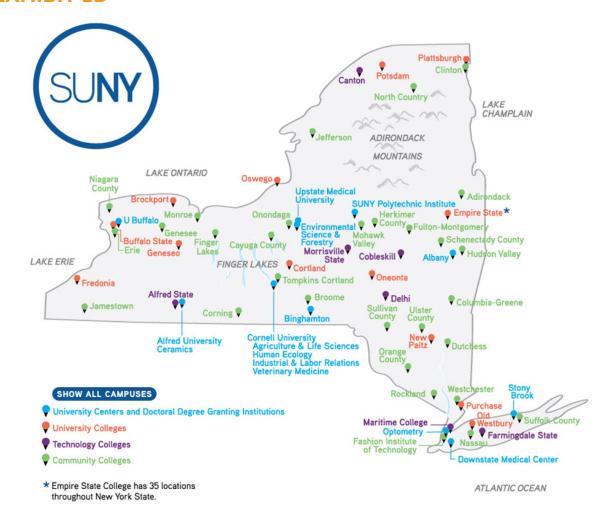
#### WHAT'S NEXT

• Recognizing that in today's economy, it is essential to equip students with a deeper understanding of the fundamentals of computing, just as we do with English, math, or science, New York State is working towards a robust computer science education initiative that will reach all of New York's students.

# NEW YORK STATE IS EXPLORING A COMPUTER SCIENCE EDUCATION INITIATIVE THAT INCLUDES:

- i. High School Graduation Requirement: This first-in-the-nation statewide computer science high school graduation requirement ensures all high school students will take an introductory computer science course. This policy will be phased in over a 10-year period and will tie the credit to rigorous computer science education, not a technology applications or keyboarding course.
- ii. \$5M Teacher Training: NYS will expand access to computer science in all New York State schools by providing roughly \$5 million for professional development training of in-service teachers each year for the next seven years. This investment will bring computer science coursework to all elementary, middle, and high school students in New York State over the next seven years; will train roughly 8,447 teachers in 21st century skills; and will make New York's the largest state investment in computer science education.
- iii. CS Standards: NYS will introduce new computer science academic standards for Pre-K-12. New computer science standards will create a foundation for curriculum and enable implementation across the state.

### **EXHIBIT 1B**



# State University of New York

## CAPABILITIES IN SUPPORT OF AMAZON HEADQUARTERS2

Kristina M Johnson, Chancellor and Executive Leadership Team The State University of New York

October 10, 2017

-New York Metro Area - New York Metro Area -



# **Executive Summary**

The State University of New York (SUNY) is the largest and most comprehensive university system in the United States. Our impact in New York State and across the globe begins with our 64 institutions, including research universities, academic medical centers, liberal arts colleges, community colleges, colleges of technology and an online learning network. We serve nearly 1.3 million students, including nearly 600,000 in credit bearing courses and programs and more than 700,000 through continuing education and community outreach programs. Our nearly three million SUNY alumni are located around the globe, each making their own unique impact. In all, SUNY is a critical determinant of New York State's diverse, trained, and ready workforce.

SUNY was created out of a commitment to opportunity and access, and designed to meet diverse needs across a vast geographic landscape. We reflect both the land grant mission reborn and a reputation for embracing new thinking and brighter ideals. Our faculty and students are constantly seeking, generating, analyzing, and sending knowledge back into the world through informed citizens, revitalized communities, and experts who transform entire sectors. There is a SUNY campus within 30 miles of 95% of the citizens of New York State.

SUNY's colleges and universities are state-supported and our graduates have been giving back and transforming the lives of local and global citizens since we were established over 65 years ago. Millions of SUNY alumni are working in their communities every day, changing and improving the world with exceptional contributions—whether defined as a medical breakthrough, a technological innovation, an inspirational piece of art, or the birth of a new business.

Through SUNY's robust credit and non-credit workforce development programs our colleges are experienced in providing tailored certificate courses, modules, and/or degree programs that provide "Just-In-Time" learning for employees, adding to organizational value and creating lifelong learners. SUNY has a long history of developing innovative programming and providing high-quality certificate and degree programs aligned with the needs of business and industry partners across the state and nation. We have the capacity and the infrastructure to create and scale-up any program, from artificial intelligence and machine learning to aviation and aeronautics, IT and cyber security, logistics, operations, supply chain management, renewable energy and storage, communications, sales and marketing, legal, healthcare, biomedical sciences, and aerofarming.

We summarize in this document examples of specific programs and resources in education, healthcare, and sustainability where SUNY can support the successful establishment and operations of the Amazon HQ2 in the State of New York.

# 1.0 Education – The Key to a Trained and Ready Workforce

# 1.1 Just-In-Time Learning

SUNY is pioneering Just-in-Time Learning (JITL) through its extensive applied learning programs as a strategy to develop critical workforce needs and strengthen campus relationships with business and non-profit partners. SUNY faculty deliver JITL both onsite and via video conferencing, telepresence, online courses and augmented reality systems. In the 2016-17 academic year alone, 185,000 SUNY students engaged in 32,000 approved applied learning course sections.

# 1.2 SUNY Amazon Scholars Program

The goal of Amazon Scholars Just-In-Time Learning program is to offer high-quality, flexible, and just-in-time learning opportunities to employees of Amazon and Amazon's partner organizations, helping them achieve their education goals while improving onthe-job performance.

Employees at Amazon and its select partners would be eligible to apply to be an Amazon Scholar. The applications will be jointly reviewed by Amazon and SUNY. Amazon Scholars will be automatically enrolled in the SUNY program of their choice for up to 10 creditbearing or non-credit bearing courses per semester that can assist the Scholar to: (1) work towards and ultimately achieve an associate, bachelor's or master's degree; and/or (2) receive Just-In-Time education in an area that is critical to their current and future career success. On-line, credit-bearing and non-credit bearing courses will be no-cost to Amazon Scholars.

SUNY is uniquely positioned to partner with Amazon in providing JITL to its employees. First, SUNY offers over 7,000 degree programs. The breadth and depth of SUNY's current and future programs would meet the varied interests and needs of Amazon and its employees. Second, SUNY has a system-wide online learning platform, providing an unparalleled opportunity to access over 500 online programs. Third, SUNY campuses are distributed across the state of New York, making it possible for in-classroom experience when desired regardless of where the employees are located. Finally, SUNY's online and on-site educational experience is flexible enough to balance the need for continuous learning with the demands in the home and workplace.

As a result, SUNY has unparalleled capacity for large-scale, industry partnerships tailored to individualized employee needs, including:

• Applied Learning Centers delivered at an industry partner's site to provide "Just-In-Time" learning to employees in all the fields mentioned in the Request for Proposal (RFP) including cyber security, machine learning, cognitive computing, supply chain management, autonomous vehicles and aviation science, while offering access to

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SUNY's high-quality faculty and laboratories across 64 campuses through video conferences and augmented reality delivery systems;

- *Customized curricula* for emerging industry needs;
- Unique modes of education delivery that utilize stackable, modularized courses and certifications making it easier for student entry and completion;
- *Improved support services for student programs* for math and reading that reduce the amount of time needed for completion of certificates and degrees.

To increase the pipeline of students who enter our colleges, graduate and succeed in the workforce, SUNY has set an ambitious agenda to increase college completion among our students and raise the number of SUNY students earning certificates and degrees by 50% by 2020. To reach this goal, we have developed a comprehensive strategy that is multifaceted and includes:

- **Seamless transfer of credits** across SUNY campuses;
- *Remediation* through an evidence-based Quantway/Statway math tool;
- Early College matriculation for High School students -Pathways to Technology (P-TECH);
- Flexible and accelerated portals, including online courses and programs available through OpenSUNY and competency-based evaluation;
- *Alignment between credential programs and workforce* (Job Linkage);
- Robust support services, including child and elder care services, transportation, counseling, and legal aid to help students stay on track to degree;
- Data analytics and data-quided decision-making, to maximize education and training program individualization and success (applying machine learning to human learning).

# 1.3 OpenSUNY

SUNY's system-level, online learning platform, called "OpenSUNY", is an initiative designed to extend the reach of SUNY campuses nationally and internationally. OpenSUNY draws on more than 20 years of online learning and innovative instruction across the SUNY system. SUNY campuses deliver more than 20,000 online courses annually in a wide range of disciplines and serve to increase access to a SUNY education and improve students' opportunity to complete. Forty-three SUNY campuses offer fully online degree and certificate programs through OpenSUNY, for a total of more than 500 online programs across the systems. Specific programs and courses available online can be found at open.suny.edu.

Below is a summary of the credit-bearing online courses currently available in the subject areas listed in the RFP:

Subject Area	# of Courses
Cybersecurity	116
Machine learning	2
Cognitive computing	8
Supply chain management	32

The following degree and certificate programs are currently available online:

#### Cybersecurity

- Certificate Program in Cybersecurity (Westchester Community College)
- Associate's Degree in Computer Security and Forensics (Broome Community College)
- Associate's Degree in Information and Network Technology (Monroe Community College)
- Bachelor's Degree in Informatics (University at Albany)
- Master's Degree in Information Design and Technology (SUNY Polytechnic)
- More than 20 online programs at the Associate's level in Computer Science or Information Technology disciplines where students may focus or concentrate on Cybersecurity.

#### **Machine learning**

• More than 20 Computer Science or Information Technology programs where students may focus or concentrate on Machine Learning.

#### Supply chain management

 Associate's Degree in Supply Chain Management (Schenectady County Community College)

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- Associate's Degree in Business with a concentration in Supply Chain Management (Genesee Community College)
- More than 30 online programs in Business Administration at the Associate's, Bachelor's and Master's levels, where students could focus or concentrate on Supply Chain Management.

And SUNY is also prepared to put online, any in-classroom course offering including, but not limited to, classes in autonomous vehicles, aviation science and instruction for operating and piloting drones.

OpenSUNY partners with Coursera as a *massive open online course* (MOOC) platform provider. SUNY MOOCs offer breadth and depth of content, with planning, producing, and scaling up courses occurring at an impressive "content to market" speed in support of personal, professional, and workforce development (<a href="https://www.coursera.org/suny">https://www.coursera.org/suny</a>). SUNY MOOCs currently in development include *Computer Vision*, *Introduction to Block Chain*, *Enterprise Information Systems*, and *Minecraft for Educators*. There is solid interest in launching a course in drone management, with conversations underway among internal and external research partners.

We are well equipped to move classroom courses and programs online, as well as the development of new online MOOCs, courses, and programs, in order to meet the workforce development and continuing education needs of Amazon.

Quality has always been a priority for SUNY's online learning efforts. We have been active both in establishing quality standards in the online learning field and ensuring the quality of our own online courses and programs. OpenSUNY contributed to the development of the <u>Online Learning Consortium's</u> Quality Scorecard for the administration of online program and we utilize this scorecard in assessing individual campus readiness for ensuring quality in online learning through the <u>OpenSUNY Institutional Readiness Process</u>.

Because of these and many other efforts, SUNY is recognized as a national leader in online learning and consequently has received numerous awards and national recognitions for establishing quality standards and ensuring quality in online learning (see Appendix A).

## 1.4 Aviation Science

Seven SUNY campuses including Dutchess, Jamestown, Mohawk Valley, Suffolk and Tompkins Cortland Community Colleges and Farmingdale State College, offer certificate and Associate's level offering programs in aeronautics and aviation science (see Appendix A for specific course listings). In addition, Mohawk Valley recently launched a drone program, "Remotely Piloted Aircraft Systems".

SUNY's Aviation Flight Center at SUNY-Farmingdale State College includes 13 faculty and is conveniently located off the Long Island Railroad and is the largest school in the

northeastern United States for training certified flight instructors and airline, charter, corporate, banner tow plane, traffic watch and air ambulance pilots. The four-year degree in aviation and aeronautical sciences provides 5,800 flight hours a year in solo and dual flight instruction.

In addition to the four-year degree, the SUNY Aviation Flight Center has a non-credit bearing Remote Pilot (Drone) certification course designed to prepare students to take and pass the FAA written exam required to receive a Remote Pilot license.

Mohawk Valley Community College (MVCC) has a Remotely Piloted Systems program as part of the significant development effort of the Northeastern Unmanned Integrated Research Alliance (NUAIR). This program provides the entry level piloting and technician component of the workforce development efforts in this field. With the assets of Griffiss International Airport, the Air Force Research Lab information Directorate, and MVCC's cybersecurity program designated as a regional center of excellence by the national security agency, MVCC is well-positioned to support an economic development of this magnitude. Further, MVCC has the only 50 mile corridor in the country established for UAS testing.

# 1.5 STEM Education Infrastructure

SUNY's physical infrastructure is massive and comprehensive ranging from large University Research Centers and regional teaching hospitals, to small, rural community colleges. In total, there are over 2,800 buildings with more than 106 million square feet. In the last 12 years, New York State has invested \$9.4 billion in SUNY's State-operated academic and hospital facilities, supporting the regional economies throughout the State.

This capital investment was largely targeted towards critical maintenance to ensure the core operations of the University, and rehabilitate, renovate and construct facilities necessary to support growing STEM academic programs to meet our State's workforce needs. Nearly \$3.4 billion supported STEM-related construction. Both the State of New York and SUNY recognized that investment in STEM facilities is vital to the economic well-being of the State and to higher education. A sampling of large-scale projects that will support STEM education in key locations in the State include:

#### Stony Brook University (Long Island)

O A new \$450 million Medical and Research Translation Building (MART) and Bed Tower is currently in construction and, when complete in 2018, will provide the University with a ten- story building (510,297 gross square feet) located adjacent to the existing Health Sciences Tower and Stony Brook (SB) Hospital on the Stony Brook East Campus. The MART will house Stony Brook's new headquarters for Cancer Research, Advanced Medical Imaging, and

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Cancer Care Center. The Bed Tower will house a new Children's Hospital, Heart Hospital, Imaging, Neuro and Surgical ICU's.

#### • University at Buffalo (Western New York)

O A new \$385 million School of Medicine and Biomedical Sciences Building (SMBS) is currently in construction and will be completed by the end of 2017. The new eight-story building (624,000 gross square feet) located in downtown Buffalo adjacent to the Buffalo-Niagara Medical Campus and will provide state-of-the-art medical education spaces, medical research labs, human anatomy labs, clinical competency labs, surgical labs, and a vivarium.

#### • University at Albany (Capital Region)

O A new \$184 million Emerging Technologies and Entrepreneurship Complex (ETEC) will be bid for construction in Fall 2017. The new four-story (246,000 gross square feet) building will house research labs, classrooms, and support spaces for the Department of Atmospheric and Environmental Sciences, Atmospheric Sciences Research Center, Department of Physics and Electronics Technology Cluster and the College of Emergency Preparedness, Homeland Security and Cybersecurity.

# 2.0 Accessible, Quality, and Cutting-Edge Healthcare – Essential for the Growth of Businesses

Quality of life is one of the principle conditions attracting industry and businesses to a community. A significant determinant of the quality of a community's life rests on the ready availability of high quality educational and healthcare offerings, and in particular Academic Health Centers (AHCs), which bring together excellent, specialized and cutting-edge care, innovative and relevant biomedical research and discovery, and quality medical and health professions education and training. The State of New York is fortunate to have some of the best healthcare and AHCs available anywhere in the United States. We briefly describe these in some detail three areas of particular interest, Long Island, the Capital Region, and the Buffalo/Western New York Region.

#### 2.1 LONG ISLAND:

Healthcare in Long Island is anchored by Stony Brook University (SBU), one of the top AHCs nationally. Stony Brook Medicine is the term used to describe all the health sciences

resources at SBU, encompassing research, education, clinical care, and community outreach. Stony Brook Medicine comprises the 603-bed tertiary care Stony Brook University Hospital (SBUH), a 900+ physician School of Medicine faculty practice, six health science schools (Medicine, Dental Medicine, Health Technology, Nursing, Pharmacy and Social Welfare), as well as a number of non-medical Stony Brook University departments and institutions that are engaged in health-related fields (e.g. Institute of Chemical Biology and Drug Development, and the Institute of Engineering Driven Medicine).

The Stony Brook healthcare system is characterized by high quality and high value, offering a wide range of services from primary care to cutting-edge surgery and cancer care. A large number of healthcare services in Suffolk County are only offered at SBUH, including the only American College of Surgery Level 1 Trauma Center for adults and children, the only accredited heart failure and ventricular assist device program, the only burn unit, the only 24/7/365 devoted pediatric emergency room, the only regional perinatal center, the only comprehensive psychiatric emergency program, and several others.

SBUH will soon open a 150-bed expansion, which will allow the hospital to provide all private, acuity adaptable rooms, including a Children's Hospital, the only such facility in Long Island. Several examples of the quality of care administered at SBUH include a US Department of Health & Human Services assessment as having the lowest mortality rate on Long Island for patients with myocardial infarction, over 500 consecutive cardiac surgeries with zero mortality, a top 5th percentile national ranking for clinical outcomes by Healthgrades, and ranked in the top decile nationally by the American College of Surgeons for surgical mortality, only one of two such designations in the entire New York metropolitan region.

SBUH also provides ambulatory care for hundreds of thousands of patients throughout Suffolk County. As but one example, SBUH just opened a 120,000 square foot "Advanced Specialty Care" clinic in Commack, at the geographic center of Long Island, within 30 seconds of two New York State Parkways and 1.5 minutes from the Long Island Expressway. Physicians that represent over 30 specialties and subspecialties attend at the clinic; practices also include extended hours of care. As two examples of the quality of its ambulatory care, SBUH was recently rated 4-star quality by Vizient, the largest and most reputable healthcare quality organization for AHCs, and received a 99<sup>th</sup> percentile ranking in the Press-Ganey patient satisfaction survey.

In addition to the medical services offered by Stony Brook Medicine, two other healthcare systems are present on Long Island and interact with Stony Brook Medicine. Northwell Health operates more than a dozen hospitals of varying size and capacity, and the Catholic Health Services of Long Island operates six hospitals with a range of capacities on the island. Both organizations also offer a range of ambulatory services in both urgent care

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centers and multidisciplinary and single specialty medical facilities. Needless to say, Long Island has a medically sophisticated and richly resourced healthcare community.

#### 2.2 CAPITAL REGION

The Capital region is fortunate to have excellent healthcare and health professionals, anchored by two large healthcare systems, Albany Medical Center and St. Peters Health Partners.

Albany Medical Center (Albany Med) is the Region's only Academic Health Center (AHC) and includes the 734-bed Albany Medical Center Hospital, offering a wide range of medical and surgical services, and the Albany Medical College, which trains the next generation of doctors, scientists and other healthcare professionals and which includes a biomedical research enterprise. It also includes the region's largest physicians practice with more than 450 doctors. Further, Albany Med works with dozens of community partners to improve the region's health and quality of life. Albany Med is affiliated with Columbia Memorial Health and Saratoga Hospital. Centers of Excellence are designated in Alzheimer's Care, Cancer Care, Critical Care, Donation and Transplant Medicine, Emergency Care, Family Medicine, Gastroenterology, Kidney Care, Neonatal Intensive Care, and Stroke, Heart Attack and Heart Failure care.

St. Peter's Health Partners is the Region's largest and most comprehensive not-for-profit network of high quality, advanced medical care, primary care, rehabilitation, and senior services. It includes St. Peter's Hospital, a Magnet®-designated hospital for nursing excellence, and its affiliated facilities: St. Mary's Hospital in Troy, Samaritan Hospital in Troy, Albany Memorial Hospital in Albany, and Sunnyview Rehabilitation Hospital in Schenectady. St. Peter's sponsors two Schools of Nursing, one located at Albany Memorial Hospital and the other at Samaritan Hospital. The St. Peter's Health Partners Medical Associates is a multi-specialty physician group with more than 350 physicians and advanced practitioners, in more than 20 specialties and in more than 80 practice locations.

The healthcare of the Capital region is further enhanced by the work and research of the School of Public Health at the SUNY University at Albany (U Albany). The School is a unique partnership between the New York State Department of Health and U Albany, with the aim of serving as leader in designing solutions and developing models that address current and emerging public health challenges, achieved through collaborative research, education, and practice activities.

#### 2.3 BUFFALO REGION

The Western Region of New York State, encompassing Buffalo and surrounding counties, ranks in the top quartile among U.S. regions local health system performance (as

evaluated by The Commonwealth Fund, 2014), reflecting the collective efforts of local nonprofit health plans and physicians to improve quality and develop a regional health information exchange. The Buffalo region is served by 17 hospitals, concentrated around two large nonprofit health systems.

The Great Lakes Health System, an affiliation of Kaleida Health, has five hospitals and 250 employed physicians, and includes Erie County Medical Center, SUNY University at Buffalo (UB), the Visiting Nurse Association of Western New York, and the Center for Hospice and Palliative Care. The second large nonprofit health system is Catholic Health, which operates three hospitals and a range of primary and community care facilities and services, and employs some 60 physicians. It is affiliated with Catholic Medical Partners, an independent practice association of 980 physicians that has formed an accountable care organization (ACO) in collaboration with other local providers. Other major providers in the region include Niagara Falls Memorial Medical Center, Eastern Niagara Health System, which operates a merged hospital with campuses in two rural communities, and the Roswell Park Cancer Institute in Buffalo.

The Region's only Academic Health Center (AHC) is the SUNY UB comprehensive AHC, headquartered on the Buffalo Niagara Medical Campus located in the city of Buffalo. It includes the Jacobs School of Medicine and Biomedical Sciences, and the UB Schools of Nursing, Dental Medicine, Pharmacy and Pharmaceutical Sciences, Public Health and Health Professions, and Social Work. It also includes Buffalo General Medical Center, Millard Fillmore Suburban Hospital, Oishei Children's Hospital, Roswell Park Cancer Center, Gates Vascular Institute, Western New York Veterans Hospital, Erie County Medical Center, and the Conventus Ambulatory Care Center-Multidisciplinary ambulatory care facility.

The SUNY UB AHC also includes facilities fostering and supporting cutting-edge biomedical discovery, such as the Clinical and Translational Research Center, the Hauptman Woodward Medical Research Institute, the New York State Center of Excellence in Bioinformatics and Life Sciences, the Institute for Healthcare Informatics, the Buffalo Institute for Genomics and Data Analytics. The UB-MD Physician's Group (UB faculty clinical practice) is the Region's largest physician group with over 550 primary care and specialty physicians attending to patients at over 60 locations through the region. Lastly, the Roswell Park Cancer Institute is one of only 41 National Cancer Institute (NCI)-designated comprehensive cancer centers in the country assuring public access to latest new and investigative therapies for patients refractory or intolerant to standard-of-care treatments.

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# 3.0 SUNY Energy and Sustainability Programs at Scale

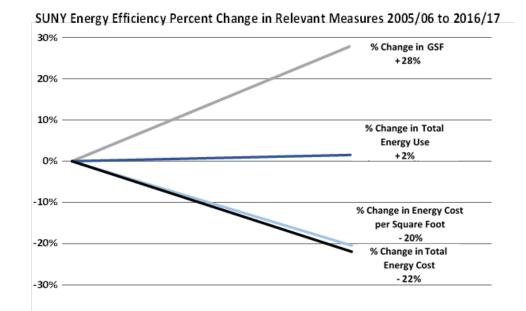
#### 3.1 REDUCING ENERGY USE AND GREENHOUSE GAS EMISSIONS

SUNY is committed to serving as both a model and a leader in the advancement of research, applied learning, and community development for implementation of sustainable practices in New York and across the nation. With 40% of the State's building assets under its stewardship, SUNY does not take this role lightly.

SUNY has a proven track record in improved energy efficiency and greenhouse gas (GHG) reduction. Leveraging successful implementation of requiring LEED Silver standard or higher for all new SUNY buildings and major rehabs since 2007, SUNY achieved a GHG reduction of 26.5% from 1990 levels, notwithstanding an overall footprint increase of 57% from 1990 to 2016. SUNY is on the verge of meeting the State's goal for GHG reduction of 30% by 2020. Yet there is more to do, including an additional 19.7% reduction from 2005, to meet and exceed the USA goals in the Paris Accord of 28% reduction of GHG by 2025, from the 2005 level, and an ultimate goal of net zero.

SUNY's accomplishments in building green and managing energy usage and cost is also demonstrated in the graph on the following page. Since 2005, targeted capital investments in upgrading aging buildings, building systems and core infrastructure at campuses throughout the State has resulted in an additional 22,860,000 gross square feet, or 28%, while at the same time, only increasing energy usage by 180,000 MMBTU, or 2%. The total energy use for SUNY for 2016/2017 was 12,113,947 MMBTU at an annual cost of \$189 million.

Given the amount of energy usage and cost to keep SUNY's facilities operational, SUNY has made and will continue to make significant investments in managing its energy portfolio. SUNY's capital improvements include solar photovoltaics, ground source heating/cooling, upgraded mechanical systems, increased thermal insulation, building energy management systems, and energy efficient lighting. Additionally, the installation of duel fuel capabilities will allow for interruptible fuel supplies, which provide better pricing opportunities. Other procurement strategies include aggregated purchasing from the wholesale market. These combined strategies have resulted in a 22% reduction in total energy costs borne by SUNY over the past decade, despite a 28% increase in total gross square footage over the same period.



SUNY also has a long and demonstrated track record of success in research and innovation in clean energy, weather data tracking, disaster mitigation and preparedness, artificial intelligence, wireless technologies and cybersecurity. Boasting the tenth largest universityowned clean energy patent portfolio in the United States and one of the largest universityowned clean energy patent portfolios in New York State (Source: Clean Energy Patent Growth Index), SUNY has unparalleled capacity to enable solutions that will synergize our research and innovation capacity with our commitment to a sustainable and resilient future, and as a provider of talent necessary to power a clean energy and smart-technology focused workforce.

# 3.2 Sustainability through Aerofarming

According to Maria-Helena Semedo, a senior UN official at the Food and Agriculture Organization, as of 2014 the Earth has only sixty harvests left if we continue to farm in a business as usual (BAU) manner.<sup>1</sup> Researchers at the College of Agriculture and Life Sciences (CALS), a Cornell College that is part of the State University of New York (SUNY) developed an approach to farming that does not require soil and yields three to four times

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<sup>&</sup>lt;sup>1</sup> Arsenault, C. (2014, December 6). Only 60 Years of Farming Left If Soil Degradation Continues. Retrieved October 6, 2017, from https://www.scientificamerican.com/article/only-6o-years-of-farming-left-if-soildegradation-continues/

the number of harvests of traditional farming.<sup>2</sup> This "24/7" approach used by the company born out of this research notes its process allows for farm-to-table vegetables and spices year-round at scale without the use of pesticides.<sup>3</sup>

In 2003, Dr. Ed Harwood at the CALS started experimenting with different around-the-clock lighting and environmentally controlled agriculture processes in order to provide vegetables and spices on demand, without the use of pesticides or soil. Known as "vertical farming" or "aeroponics," this unique, state-of-the-art approach to agriculture can quadruple the harvests, while reducing the amount of soil, fertilizer and pesticides required to basically zero. Aeroponics also uses 70% less water than hydroponic farming, a technique where plants are grown in water, which itself uses 70% less water than traditional farming methods.

The environmentally controlled agriculture (ECA) technique involves illuminating seeds 24 hours a day and seven days a week, which yields a harvest in half the time as a traditional field farmer. For example, crops that usually take 30 to 45 days to grow, such as gourmet salad greens, take as little as 12 days. Moreover, vertical farming uses less than 1% of the land required by conventional growing, meaning it is over 390 times more productive per square foot compared to traditional agriculture. The key to the process is the wavelength and intensity of light made available by light-emitting diodes (LEDs) and surface emitting laser technology. The process replaces soil with a proprietary cloth material, which alongside the constant light and frequent watering that is collected and reused within the system, cuts down on resources and harvest time. "They got to know me well at the Jo-Ann Fabric store in Ithaca," Dr. Harwood said describing the repeated trial and error to perfect this technique. 5

Another application of similar technology has been adopted by another company, Freight Farms, to grow the plants in an enclosed cargo container. A typical cargo container is 40 ft. x 8 ft. x 9.6 ft. in volume and produces 2-4 tons of produce per year, the equivalent of 2.3 acres producing leaf lettuce. The United States consumed 12.3 pounds of lettuce per

capita in 2016,<sup>7</sup> and traditional farming techniques produce 9.38 tons of leaf lettuce per acre.<sup>8</sup> To supply fresh leaf lettuce to 100,000 people, traditional farming would require over 65 acres, while ECA could supply the same amount of produce through 150 containers that would occupy 1% of a single acre.<sup>9</sup>

These factories could be co-located at the Amazon headquarters and/or at local Whole Foods Stores and supply the local community with fresh vegetables and spices throughout the year. Further, the research by Dr. Harwood continues to improve by reducing energy use, increasing yield and further automating the operation allowing franchising and scale.

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<sup>&</sup>lt;sup>2</sup> Frazier, I. (2017, January 2). *The Vertical Farm: Growing crops in the city, without soil or natural light*. Retrieved October 6, 2017, from http://aerofarms.com/2017/05/03/vertical-farm-growing-crops-newark/

<sup>&</sup>lt;sup>3</sup> AeroFarms: *Our Story*. (2017). Retrieved October 6, 2017, from http://aerofarms.com/story/

<sup>&</sup>lt;sup>4</sup> AeroFarms: *Our Technology*. (2017). Retrieved October 6, 2017, from http://aerofarms.com/technology/

<sup>&</sup>lt;sup>5</sup> Frazier, I. (2017, January 2). *The Vertical Farm: Growing crops in the city, without soil or natural light*. Retrieved October 6, 2017, from http://aerofarms.com/2017/05/03/vertical-farm-growing-crops-newark/

<sup>&</sup>lt;sup>6</sup> Freight Farms: *Ready, Set, Grow.* (2017). Retrieved October 6, 2017, from https://www.freightfarms.com/home#ready-set-grow

<sup>&</sup>lt;sup>7</sup> U. S. Food and Drug Administration. (2017) *U.S. fresh market vegetables, mushrooms, potatoes, and sweet potatoes: supply utilization and price.* Washington, DC.

<sup>&</sup>lt;sup>8</sup> Tourte, L., Smith, R. F., Klonsky, K. M., & De Moura, R. L. (2009). *Leaf Lettuce Costs and Returns Study*. Retrieved October 6, 2017, from https://coststudyfiles.ucdavis.edu/uploads/cs\_public/7d/96/7d96db67-49ca-442f-9543-

https://coststudyfiles.ucdavis.edu/uploads/cs\_public/7d/96/7d96db67-49ca-442f-9543-4482187c9cd1/lettuceleaforganiccco9.pdf.

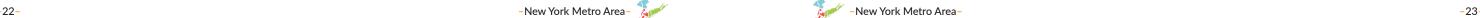
<sup>&</sup>lt;sup>9</sup> 1 container (40ft x 8ft = 320 sqft, 1 acre = 43,560 sqft)

# APPENDIX A: Open-SUNY Awards and Recognition

Award Name	Year
NUTN Distance Education Innovation Award - OSCQR Rubric	2016
NUTN Institutional Achievement Award - Institutional Model	2015
NUTN Online Student Recognition Award – Open SUNY Student	2015
OLC Effective Practice Award – OSCQR Rubric	2015
OLC Effective Practice Award – Institutional Readiness Process	2014
Sloan-C Fellow – Alexandra Pickett	2012
Next Generation Learning Challenge (NGLC) Grant - Blended Learning	2011
Sloan-C Effective Practice Award - Online Teaching Self-Assessment Survey	2010
NUTN Distance Education Innovation Award - Online Teaching Self-Assessment Survey	2009
USDLA 21st Century Best Practice Award - Online Technology	2006
Sloan-C Excellence in Institution-Wide ALN Programming – Student and Faculty Satisfaction	2002
EDUCAUSE Award for Systemic Progress in Teaching and Learning – Teaching and Learning	2001
Sloan-C Excellence in ALN Faculty Development – Faculty Professional Development	2001

# APPENDIX B: Aviation Science and Pilot Training Courses Offered at Seven SUNY Colleges:

SUNY CAMPUS	PROGRAM TITLE	DEGREE TYPE	PROGRAM CODE
Dutchess Community College	Aviation Science: Pilot	AS	28724
Jamestown Community College	Professional Piloting	AAS	23016
Mohawk Valley Community College	Airframe and Powerplant Technician Mechanical Technology: Aircraft Maintenance Private Pilot Professional Pilot Remotely Piloted Aircraft Systems	CERT. AAS, AAS AAS CERT., AAS AAS	31021 87011, 84010 24499 24552, 24492 38135
Schenectady County Community College	Air Traffic Control Aviation Science	AAS AS	33787 20642
Suffolk Community College	Mechanical Technology - Aircraft Maintenance	CERT., AAS	86391, 86392
Farmingdale State College	Aerospace Technology Mechanical Technology - Aircraft Maintenance	AAS AAS	76228 86391, 86392
Tompkins-Cortland Community College	Aviation Science	AS	24758





# NEW YORK CITY



# **PART 1: SITES**

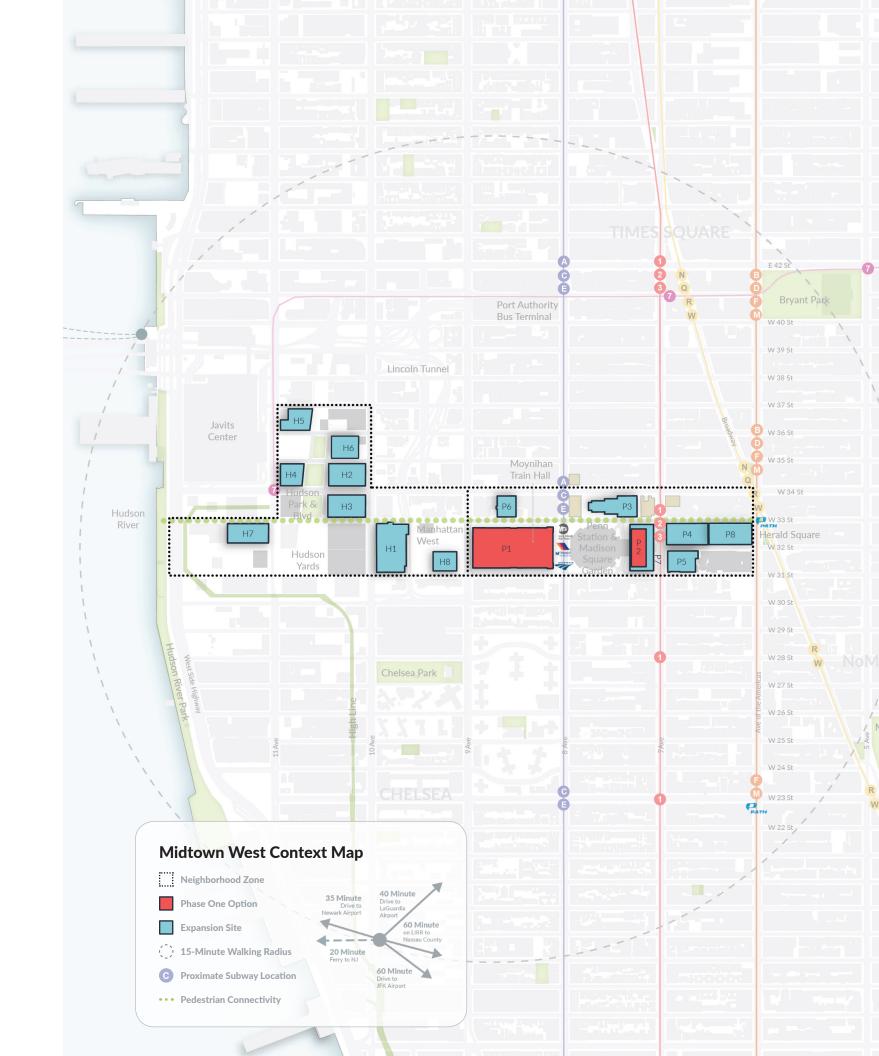
**Q1.** Please provide information regarding potential buildings/sites that meet the criteria described herein. Along with general site information, please provide the current ownership structure of the property, whether the state/province, or local governments control the property, the current zoning of the site, and the utility infrastructure present at the site.

#### **Summary**

The following matrices include additional detail for each proposed site including deal structure, current zoning, utilities infrastructure, connectivity, sustainability features, and entitlements and approvals needed. In New York City, entitlement occurs through the Uniform Land Use Review Procedure (ULURP). ULURP is a standardized seven month procedure whereby land use actions such as rezonings and site dispositions, are publicly reviewed. Key participants in the ULURP process are the Department of City Planning and the City Planning Commission, Community Boards, the Borough Presidents, and the Borough Boards, the City Council and the Mayor. As an alternative, in some cases entitlements can be pursued through a State process and, therefore, in coordination with the State.



## Midtown West Site Details





### **Midtown West Site Details**

Site ID	Site Address	Owner/Developer	Occupancy Date	Square Footage	Site Type	Deal Structure	Current Zoning	Entitlements/Approvals Needed	Utilities/Infrastructure	Connectivity	Sustainability Features	Net Illustrative Rent*	Lease Term (Years)	Months of Free Rent	Tenant Improvements
P1	421 Eighth Ave. (Farley)	Related; Vornado[1]	2019	638,000	Rehabilitation	Lease	C6-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; service planned with multiple carriers and multiple points of entry; able to bring on proprietary carrier	Target LEED CS Gold	\$85	20	N/A	~\$70
P2	2 Pennsylvania Plaza (Two Penn Plaza)	Vornado	2019	687,000	Existing	Lease	C6-6; Special Midtown District	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; service planned with multiple carriers and multiple points of entry.	LEED EB O&M Gold	\$80	20	N/A	~\$70
Phasa 1 Subtotal	2			1 325 000											-

P3	1 Pennsylvania Plaza (One Penn Plaza)	Vornado[2]	2019+	2,500,000	Existing	Lease	C6-6 and C6-4; Special Midtown District w/Hudson Yards Overlay	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Pending LEED EB Gold and Energy Star	\$70-90
P4	15 Pennsylvania Plaza (Fifteen Penn Plaza)[3]	Vornado	2022	2,500,000	New construction	Lease, ground lease or sale	C6-6; Special Midtown District	Special permit in place for a specific building design; design changes would require land use approvals	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED CS Gold	\$95-120
P5	11 Pennsylvania Plaza (Eleven Penn Plaza)	Vornado	2024	1,130,000	Existing	Lease	C6-6, C6-4.5; Special Midtown District	None	Full access commensurate with New York City Class A office space; opportunity to upgrade as part of new build	Full access commensurate with New York City Class A office space; opportunity to upgrade as part of new build	LEED EB Gold and Energy Star	\$70-90
P6	330 West 34th St.	Vornado[2]	2024	615,000	Existing	Lease	C6-4; Hudson Yards Special District	None	No steam connection but otherwise full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Pending LEED CS Silver and Energy Star	\$70-90
P7	2 Pennsylvania Plaza (New construction)[4]	Vornado	2027	5,000,000	New construction	Lease, ground lease or sale	C6-6; Special Midtown District	Air rights are in place; supplementary land use approvals required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications; opportunity to upgrade as part of new build	Target LEED CS Gold	\$95-120
P8	100 West 33rd St. (Manhattan Mall)[3]	Vornado	2027	1,120,000	Existing	Lease	C6-6; Special Midtown District	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	LEED EB Gold and Energy Star	\$70-90
Expansion: Penn Plaza	6			12,865,000			•			•		,

H1	450 West 33rd St. (Five Manhattan West)	Brookfield	2019	323,000	Existing	Lease	C6-4	None	Full access commensurate with New York City Class A office space; floor by floor DX units fed by cooling tower	Full access commensurate with New York City Class A office space	LEED Certified	\$95-120
H2	66 Hudson Blvd. (The Spiral)	Tishman Speyer	2022	2,600,000	New construction	Lease	C6-4; Hudson Yards Special District	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications; service planned with multiple carriers and multiple points of entry	Minimum LEED Silver	\$140
НЗ	34th St. & 10th Ave. (50 Hudson Yards)	Related	2022	1,700,000	New construction	Lease	C6-4; Hudson Yards Special District	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	LEED Gold	\$95-120
H4	3 Hudson Blvd	The Moinian Group	2022	1,610,000	New construction	Lease	C6-4; Hudson Yards Special District	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	LEED Gold & Green Roof	\$90-160
Н5	438-444 11th Ave.	Tishman Speyer	2022	1,200,000	New construction	Lease	C6-4; Hudson Yards Special District	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications; service planned with multiple carriers and multiple points of entry	Minimum LEED Silver	\$120
Н6	517 West 35th St.	Related	2022	1,100,000	New construction	Lease	C6-4; Hudson Yards Special District	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	LEED Silver	\$95-120
Н7	33rd St. & 11th Ave. (40 Hudson Yards)	Related[1]	2023	2,100,000	New construction	Lease	C6-4; Hudson Yards Special District	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	LEED Silver	\$95-120
Н8	385 Ninth Ave. (Two Manhattan West)	Brookfield	2023	1,780,000	New construction	Lease	C6-4	None	Ability to build out utility/infrastructure to Amazon's specifications; floor by floor DX units fed by cooling tower	Ability to provide connectivity to Amazon's specifications	LEED Gold (Target)	\$95-120
		,			1							

\*"Net Illustrative Rent" indicates effective rent after as-of-right incentives on a per rentable square foot basis in 2017 dollars.

12,413,000



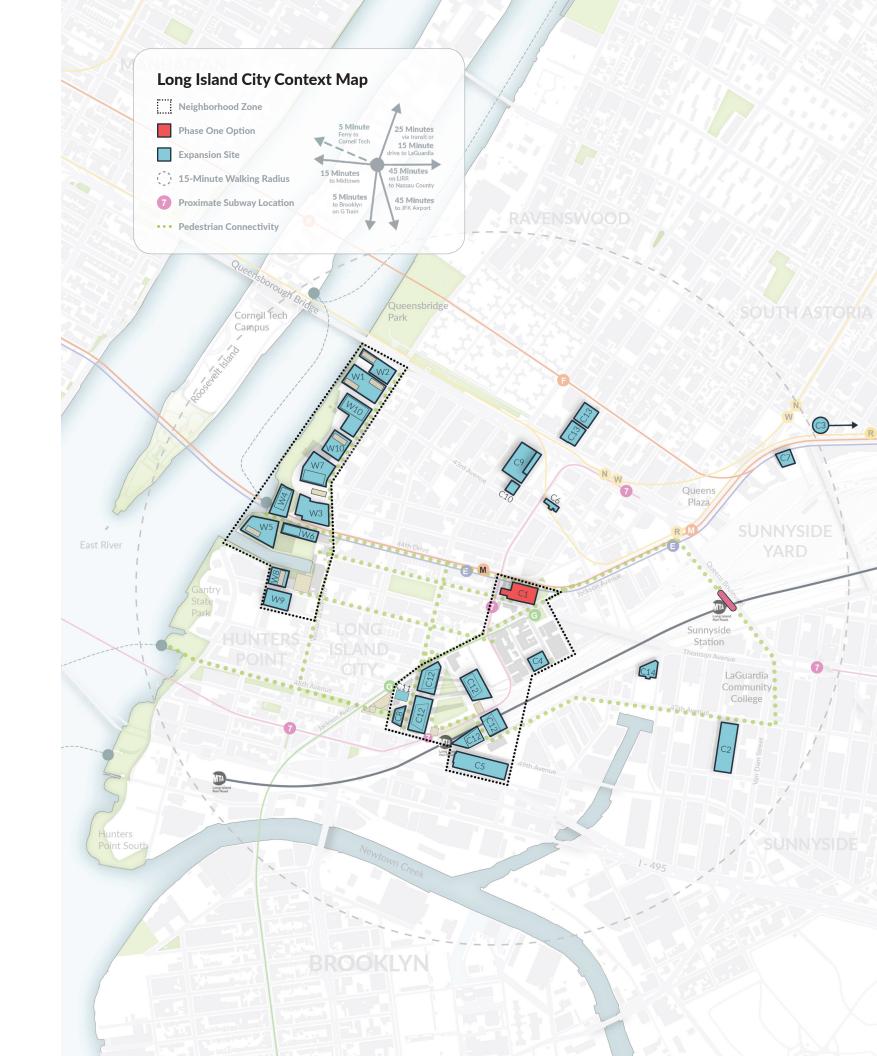
<sup>[1]</sup> Ground leased from public entity.

<sup>[2]</sup> Ground leased from private entity.

<sup>[3]</sup> Alternative scenario would involve new construction of one building in place of existing Manhattan Mall and Fifteen Penn Plaza, which would provide ~4 million gross square feet.

<sup>[4]</sup> Alternative scenario would involve rehabilitation of existing building, which would provide an incremental ~1 million gross square feet.

# **Long Island City Site Details**





## **Long Island City Site Details**

Site ID	Site Address	Owner/Developer	Occupancy Date	Square Footage	Site Type	Deal Structure	Current Zoning	Entitlements/Approvals Needed	Utilities/Infrastructure	Connectivity	Sustainability Features	Net Illustrative Rent*	Lease Term (Years)	Nonths of Free Rent	Tenant Improvements
C1	One Court Square[1]	Savanna	2019	500,000-1,500,000	Existing	Lease	C5-3	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; pursuing Wired Score Certification	Target LEED certification	\$46	20	12	\$65
DI 401111				500 000 4 500 000											

C2	31-00 47th Ave. (Falchi Building)	Savanna	2019	140,000	Existing	Lease	M1-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$29
C3	37-18 Northern Blvd. (Standard Motor Products Building)[2]	RXR	2019-2020	300,000	Existing	Lease	M1-5	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$26-28
C4	4555 Pearson St	TF Cornerstone[3]	2019-2020	213,000	Rehabilitation	Lease	M1-5/R7-3	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$29
C5	24-02 49 Ave.	Innovo Property Group; Westbrook Partners	2020	374,000	Existing	Lease	M1-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$24-49
C6	42-50 24th St.	Fisher Brothers; Hakim Org.	2021	272,000	New construction	Lease	M1-5/R9	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
C7	31-08 and 31-16 Northern Blvd.	Criterion Group[4]	2021	255,000	New construction	Lease	M1-5	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
C8	11-24 Jackson Ave.	City-/State-owned; Developer TBD	2022	290,000	New construction	Lease, ground lease or sale	M1-5	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
С9	42-22 22nd St, 42-25 21st St.	Silvercup Properties; RXR	2023	605,000	New construction	Lease	M1-5	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
C10	21-21 43rd Ave.	Silvercup Properties; RXR	2023	84,000	New construction	Lease	M1-5	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
C11	47-40 21st St.	Plaxall	2024	402,000	New construction	Lease	M1-5/R7X	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
C12	21-16 Jackson Ave.	City-/State-owned; Developer TBD	TBD	3,000,000-7,500,000	New construction	Lease, ground lease or sale	M1-5/R7X	Land use action required	Requires infrastructure investment; ability to build out utility/infrastructure to Amazon's specifications	Requires connectivity investment; ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
C13	22-09 Queens Plaza N and 22-09 41st Ave.	Criterion Group[4]	TBD	557,000	New construction	Lease	M1-5	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
C14	28-11 47th Ave.	LaGuardia Community College	TBD	106,000	New construction	Lease	M1-4	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
Expansion: Core	13			6,598,000-11,098,000			*	1				

W1	42-30 Vernon Blvd.	Silvercup Properties; RXR [5]	2020	752,000	New construction	Lease	MX9 (M1-5/R10)	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
W2	41-98 to 42-16 Vernon Blvd.	Silvercup Properties; RXR	2020	594,000	New construction	Lease	MX9 (M1-5/R10)	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
W3	44-36 44 Dr.	City-owned; Developer TBD	2020	510,000	Rehabilitation	Lease	M1-4	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
W4	4-99 44th Dr.	TF Cornerstone[6]	2023	1,150,000	New construction	Lease	M1-4	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED Silver	\$24-49
W5	4-40 44th Dr.	Plaxall	2023	648,000	New construction	Lease	Various (M1-4 & M1-4/R6A)	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$40-65
W6	5-40 44th Dr.2	TF Cornerstone[6]	2023	470,000	New construction	Lease	M1-4	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED Silver	\$24-49
W7	44-00 and 44-02 Vernon Blvd.	Sussman	2024	1,375,000	New construction	Lease	R9, C2-5/R7A & R7A	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
W8	5-37/39 46th Ave.	Plaxall	2024	286,000	New construction	Lease	Various (M1-4 & M1-4/R6A)	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$40-65
W9	5-26 46th Ave.	Plaxall	2025	239,000	New construction	Lease	Various (M1-4 & M1-4/R6A)	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
W10	43-82 Vernon Blvd.	ConEd	TBD	TBD	New construction	TBD	M1-4	TBD	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$24-49
											•	

Expansion: Subtotal	23	12,622,000-17,122,000
TOTAL	24	13,122,000-18,622,000

\*"Net Illustrative Rent" indicates effective rent after as-of-right incentives on a per rentable square foot basis in 2017 dollars, assuming 170 gross square feet per employee.

[1] Initial 500,000 square feet available in 2019. Up to 1 million square feet available by 2020.

[2] Additional space available post 2020, with new addition.

[3] Ground leased from private entity.

[4] Under contract for purchase by 2019.

[5] Option on publicly owned site.

[6] Anticipated ground lease from public entity.



# **Brooklyn Tech Triangle Site Details**





## **Brooklyn Tech Triangle Site Details**

N1 63 Flushing Ave. #300 (Dock 72) Boston Properties; Rudin[1] 2019 610,000 Under construction with delivery by 2019 610,000 Under construction with delivery by 2019 Ease M3-1 None Full access commensurate with New York City Class A office space; high speed, scalable, redundant and delivered by multiple carriers. \$43 20 12 12 12 12 12 12 12 12 12 12 12 12 12	Site ID	Site Address	Owner/Developer	Occupancy Date	Square Footage	Site Type	Deal Structure	Current Zoning	Entitlements/Approvals Needed	Utilities/Infrastructure	Connectivity	Sustainability Features	Net Illustrative Rent*	Lease Term (Years)	Months of Free Rent	e Tenant Improvements
	N1	63 Flushing Ave. #300 (Dock 72)		2019	610,000	with delivery by	Lease	M3-1	None	*			\$43	20	12	\$75
Space Celection had for several service protocols dark their distribution	D1	25/30 Columbia Heights	LIVWRK[2]	2019	772,000	Existing	Lease	M2-1	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; houses main telecom hub for several service providers' dark fiber distribution	Target LEED certification	\$59	20	6	\$75

N2	15 Washington Ave.	Steiner[1]	2020-2027	1,000,000	Rehabilitation or new construction	Lease	M3-1	State Historic Preservation Office approval needed for portion	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED certification	\$43
N3	63 Flushing Ave. (BP/Rudin Site)	Boston Properties; Rudin[3]	2020-2027	600,000	New construction	Lease	M3-1	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED certification	\$43
N4	63 Flushing Ave. (BNYDCKent)	BNYDC	2020-2027	430,000	New construction from demolition	Lease	M3-1	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED certification	\$43
N5	63 Flushing Ave. (BNYDCFlushing)	BNYDC	2020-2027	322,000	New construction from demolition	Lease	M3-1	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED certification	\$43
N6	63 Flushing Ave. (BNYDCNavy)	BNYDC	2020-2027	250,000	New construction from demolition	Lease	M3-1/M1-2	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED certification	\$43
Expansion: Brooklyn Navy Yard	5			2,602,000			•				*	<del></del>

D2	55 Prospect St.	LIVWRK[2]	2019-2029	206,000	Existing	Lease	M1-6	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$54
D3	90 Sands St.	RFR[2]	2020	363,100	Rehabilitation	Lease	M1-6	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$54
D4	175 Pearl St.	RFR[2]	2020	192,000	Existing	Lease	M1-6	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$54
D5	85 Jay St.	LIVWRK[2]	2025	1,020,000	New construction	Lease	M1-2/R8 (MX-2)	Land use action required	Requires infrastructure investment; ability to build out utility/infrastructure to Amazon's specifications	Requires connectivity investment; ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$64
D6	147 Front St.	Guttman	2025-2030	320,000	Rehabilitation	Lease	M1-4/R8A	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Ability to meet Amazon's sustainability goals	\$54-64
D7	117 Adams St.	LIVWRK[2]	2026	164,000	Existing	Lease	M1-6	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$54
D8	77 Sands St.	LIVWRK[2]	2026-2031	192,000	Existing	Lease	M1-6	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$54
D9	81 Prospect St.	LIVWRK[2]	2031	82,000	Existing	Lease	M1-6	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$54
Expansion: DUMBO	8			2,539,100					,			

DT1	41 Flatbush Ave.	Quinlan Development Lonicera Partners	2019	225,000	Existing	Lease	C6-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$49-59
DT2	1 Pierrepont Plaza	Forest City	2019	213,000	Existing	Lease	C6-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$49-59
DT3	12 MetroTech Center	Forest City	2019	111,000	Existing	Lease	C5-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$49-59
DT4	420 Albee Square W. (One Willoughby)	JEMB	2020	376,000	Under construction	Lease	C6-4.5	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Target LEED Silver	\$49-59
DT5	141 Willoughby St.	Savanna	2020	278,000	Under construction	Lease	C6-1	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Target LEED Silver	\$49-59
DT6	15 MetroTech Center	Forest City[1]	2020-2024	574,000	Existing	Lease	C6-1A	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$49-59
DT7	625 Fulton St.	Totem; Rabsky	2021	1,330,000	New construction	Lease	C6-4	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Minimum LEED Silver	\$49-59
DT8	565 Fulton St.	RedSky	2021	711,000	New construction	Lease	C6-4.5	Land use action required	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Minimum LEED Silver	\$49-59
DT9	590 Atlantic Ave. (Building 3)	Forest City[1]	2023	990,000	New construction	Lease	C6-4	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Minimum LEED Silver	\$49-59
DT10	590 Atlantic Ave. (Building 4)	Forest City[1]	2024	830,000	New construction	Lease	C4-4A	Land use action required (State)	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Minimum LEED Silver	\$49-59
DT11	Atlantic Terminal	Forest City[1]	2024	298,000	Existing	Lease	C6-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$49-59
DT12	1 MetroTech Center	Forest City[1]	2024	298,000	Existing	Lease	C6-1A	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space	Ability to meet Amazon's sustainability goals	\$49-59
DT13	590 Atlantic Ave. (Building 1)	Forest City[1]	2025	1,140,000	New construction	Lease	C6-2	Land use action required (State)	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Minimum LEED Silver	\$49-59
DT14	590 Atlantic Ave. (Building 2)	Forest City[1]	2027	1,840,000	New construction	Lease	C6-4	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Minimum LEED Silver	\$49-59
	1	_			1		1	•				

Expansion Subtotal 27

14,355,100

9,214,000

TOTAL 29

15,737,100

\*"Net Illustrative Rent" indicates effective rent after as-of-right incentives on a per rentable square foot basis in 2017 dollars, assuming 170 gross square feet per employee.

- [1] Ground leased from public entity.
- [2] Owner is one of several in a joint venture.
- [3] Option on publicly owned site.

# **Lower Manhattan Site Details**





### **Lower Manhattan Site Details**

Site ID	Site Address	Owner/Developer	Occupancy Date	Square Footage	Site Type	Deal Structure	Current Zoning	Entitlements/Approvals Needed	Utilities/Infrastructure	Connectivity	Sustainability Features	Net Illustrative Rent*	Lease Term (Years)	Months of Free Rent	e Tenant Improvements
LM1	175 Greenwich St. (Three World Trade Center)	Silverstein Properties[1]	2019	1,423,000	Under construction with delivery by 2019	Lease	C6-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; fibre-optic system, DAS cellular enhancment system	Designed LEED Gold (certifcation TBD)	\$57	15-20	15	\$90
LM2	28 Liberty St.	Fosun Holdings Limited	2019	622,000	Existing	Lease	C5-5	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; multiple data carriers and fibre network	Ability to meet Amazon's sustainability goals	\$56	20	12	\$80
Phase 1 Subtotal	2			2.045.000								•			

LM3	200 Greenwich St. (Two World Trade Center)	Silverstein Properties[1]	2023	2,465,000	New construction	Lease	C6-4	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED GOLD	\$47-87
LM4	130 Liberty St. (Five World Trade Center)	City- and State-owned; Developer TBD	2023	1,275,000	New construction	Lease	C6-9	None	Ability to build out utility/infrastructure to Amazon's specifications	Ability to provide connectivity to Amazon's specifications	Target LEED GOLD	\$47-87
LM5	200 Liberty St.	Brookfield Property Partners[1]	2026	940,000	Existing	Lease	Battery Park City Special District (Zone B)	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; Platinum Wired Score	LEED GOLD	\$49-59
LM6	250 Greenwich St. (Seven World Trade Center)	Silverstein Properties[1]	2027	833,000	Existing	Lease	C6-4	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; fibre-optic system, DAS cellular enhancment system	LEED GOLD	\$56
Evnansion: World Trade												

LM7	77 Front St.	RXR Realty[2]	2019	359,000	Existing	Lease	C6-9	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; fibre network	Ability to meet Amazon's sustainability goals	\$42-46
LM8	199 Water St.	Resnick & Sons	2019	333,000	Existing	Lease	C5-3	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; Platinum Wired Score	LEED Certified (O&M)	\$40-46
LM9	180 Maiden Ln.	MHP Real Estate Services	2019	296,000	Existing	Lease	C5-3	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; Gold Wired Score	LEED Certified	\$40-53

												1
LM9	180 Maiden Ln.	MHP Real Estate Services	2019	296,000	Existing	Lease	C5-3	None	Full access commensurate with New York City Class A office space	Full access commensurate with New York City Class A office space; Gold Wired Score	LEED Certified	\$40-53
Expansion: Water Street	3			988,000								
	_	1			1							

Expansion Subtotal	7	6,501,000
TOTAL	9	8,546,000

\*"Net Illustrative Rent" indicates effective rent after as-of-right incentives on a per rentable square foot basis in 2017 dollars, assuming 170 gross square feet per

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<sup>[1]</sup> Ground leased from public entity.

<sup>[2]</sup> Ground leased from private entity.

#### **Broadband Infrastructure**

New York City boasts - and is continuing to invest in - the broadband infrastructure that Amazon will need on Day 1. The City is home to over 32 fiber and cable providers that serve large, commercial clients with robust service and capacity spanning all five boroughs. These providers can connect to some of the largest colocation data centers in the world, including 60 Hudson St, 111 8th Ave. and 32 Avenue of the Americas.

In addition to the incredible set of wireline offerings, there are a plethora of non-fiber options for redundancy. Numerous fixed wireless providers offer enterprise-level service and reliability by extending physical fiber plants using wireless-based last mile solutions. Furthermore, all major US carriers are seeking new telecommunications sites in the city at a pace never before experienced. This increase is fueled by existing deployments of next-generation, high-capacity spectrum (e.g., AT&T at 28 Ghz, Verizon at 39 Ghz), and in anticipation of thousands of new 5G sites that all providers will be deploying over the next years. The investment in 5G throughout New York City will keep it one of the highest density networks in the country.

Beyond existing offerings, we are ready to leverage the existing Empire City Subway conduit network in Manhattan and the Bronx, and make additional capital investments in other boroughs. We are already investigating sizeable capital investments in the design, acquisition, construction, maintenance, and operation of new conduit and dark fiber within all five boroughs of the city.

Each of the four proposed geographies are served by 10+ fiber providers, all of which provide robust capacity and service levels suitable for the connectivity needs of a company like Amazon. All of these proposed geographies are also served by all four major cellular carriers with 4G LTE service.

### **PART 2: INCENTIVES**

**Q2.** Please provide a summary of total incentives offered for the Project by the state/province and local community. In this summary, please provide a brief description of the incentive item, the timing of incentive payment/realization, and a calculation of the incentive amount. Please describe any specific or unique eligibility requirements mandated by each incentive item. With respect to tax credits, please indicate whether credits are refundable, transferable, or may be carried forward for a specific period of time. If the incentive includes free or reduced land costs, include the mechanism and approvals that will be required. Please also include all timelines associated with the approvals of each incentive. We acknowledge a Project of this magnitude may require special incentive legislation in order for the state/province to achieve a competitive incentive proposal. As such, please indicate if any incentives or programs will require legislation or other approval methods. Ideally, your submittal includes a total value of incentives, including the specified benefit time period.

#### **Summary**

New York City's appeal is evident in the companies that choose to locate here, and in the talent pool that those companies attract. The City offers a suite of incentive programs that may benefit Amazon, without the need for legislative or other approval. These incentives are designed to promote the City's objectives of generating employment and encouraging economic expansion and business activity. As detailed below, business incentives administered at the City and State range from tax exemptions based on location to support for businesses that make a substantial commitment to job growth.

New York City offers programs designed to spur new investment in capital projects, incentivize the hiring of new employees, and reduce operating costs. The total value of incentives will depend on the program, location, and timing of Amazon's buildout among other factors.

#### Industrial and Commercial Abatement Program (ICAP)

#### Benefit and Area:

- Property tax abatements for real estate projects involving new construction or substantial renovation.
- Projects can be anywhere in the City, except for some parts of Manhattan.
- The term of benefits varies depending on geography and the type of project:
  - o Renovation projects in Manhattan south of 59th Street or in Lower Manhattan are eligible for 10 years of property tax benefits;
  - o New construction projects outside the area of Manhattan south of 96th Street (excluding Lower Manhattan), or located in boroughs outside of Manhattan, are eligible for 15 years of property tax benefits;
  - o Projects located in special areas are eligible for up to 25 years of property tax benefits.

#### **Eligibility and Administration:**

- Buildings must be built, modernized, expanded, or otherwise physically improved after submission of a formal ICAP application.
- Company must spend at least 30 percent of the property's taxable assessed value no later than four years from the date a building permit was issued (or from start of construction if no permit is required).
- Construction must be completed no later than five years from the date of issuance of the first building permit (or from start of construction if no permit is required).
- Benefits are formalized on January 5 following the issuance of a certificate of occupancy, and the Company will begin receiving benefits on July 1 thereafter.
- ICAP is administered by the New York City Department of Finance.

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#### Refund/Transfer/Carryover:

- ICAP property tax benefits are not refundable, nor can they be transferred across projects.
- ICAP benefits stay with the abated property if the property remains commercial and the retail portion does not exceed 5 percent.
- ICAP benefits may not be carried forward to future years.

#### Relocation and Employment Assistance Program (REAP)

#### Benefit and Area:

- Annual income tax credit of \$3,000 for 12 years for each job created in designated locations, or relocated from outside of the City to such designated locations.
- Designated locations include areas of Manhattan north of 96th Street, or anywhere in the other four boroughs.

#### **Eligibility and Administration:**

- Expenditures must be made for improvements to the property in excess of 50 percent of the assessed value (25 percent of the assessed value for industrial properties) at the start of the improvements.
- Businesses must have been conducting substantial business operations for at least 24 consecutive months immediately before relocating.
- Provided that companies can demonstrate the relocation or hiring of employees, as well as the other eligibility criteria stated above, REAP benefits will be made available.
- REAP is administered by the New York City Department of Finance.

#### Refund/Transfer/Carryover:

- Benefits are refundable for the year of relocation and the following four years.
- Unused credits from subsequent years may be carried forward for five years.

#### **Business Incentive Rate (BIR)**

#### Benefit and Area:

- Reduces the delivery components of electricity bills by 30 percent to 35 percent.
- Provides a benefit for 15 years (10 years with a five-year phase-out).
- Benefits are not refundable or transferable and may not be carried forward.

#### **Eligibility and Administration:**

- Company must demonstrate a matching city or state incentive, such as ICAP, Recharge New York, or ECSP energy benefits (see below).
- Company must make a commitment to increase employment by 10 percent in three years.
- Company must conduct an energy survey of the facility it plans to occupy.
- Upon delivery of application materials, benefits will be made available within two months.
- This program is co-administered by New York City Economic Development Corporation and Con Edison.

#### **Energy Cost Savings Program (ECSP)**

#### Benefit and Area:

- Reduces the delivery portion of regulated electricity costs by up to 45 percent and regulated natural gas costs by up to 35 percent for eligible businesses. (Regulated costs are the transmission and distribution costs by the regulated utility.)
- Provides an incentive for 12 years to companies that locate a new facility in any area of the City other than south of 96th Street in Manhattan.

#### **Eligibility and Administration:**

- Company must make real property improvements in excess of 30 percent of the assessed valuation of the building and land.
- Company must receive matching benefits through ICAP or operate in a building owned by the City of New York or Empire State Development Corporation, where the property will be improved by at least 10 percent of the property's assessed value.
- Upon receipt of application, a response is generated within one week and benefits are made available within two
- This program is administered by the NYC Department of Small Business.

Refund/Transfer/Carry Over: Benefits are not refundable, transferable and may not be carried forward.

#### **Commercial Expansion Program (CEP)**

#### Benefit and Area:

- Provides property tax abatements up to \$2.50 per square foot for new, renewal, and expansion leases for commercial offices and industrial spaces in a facility north of 96th Street in Manhattan, or anywhere in Brooklyn, Queens, the Bronx, or Staten Island.
- Benefit is provided for five years (three years, with a two-year phase-out).

#### **Eligibility and Administration:**

- Company must make improvements of \$25 per square foot.
- Company must execute a lease of 10 years or more if more than 125 people will be employed in the premises.
- A formal CEP application must be submitted to the New York City Department of Finance. Confirmation of eligibility will be provided within 90 days, at which point benefits will be retroactively applied to the 1st of the month following the rent commencement date.

Refund/Transfer/Carry Over: Benefits are not refundable, transferable and may not be carried forward.

#### **LOWER MANHATTAN INCENTIVES**

Programs that provide benefits to businesses establishing operations in Lower Manhattan include LM-REAP, LM Sales Tax Exemption, CRT Special Reduction, and LM-EP.

#### Lower Manhattan Relocation and Employment Assistance Program (LM-REAP)

#### Benefit and Area:

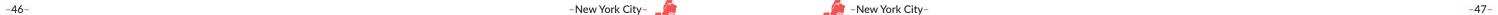
- Annual income tax credit of \$3,000 for 12 years for relocating jobs from outside New York City to the area in Lower Manhattan south of Houston Street.
- Incentive is capped at \$300,000 annually, or two times employment prior to relocation, whichever is greater.

#### **Eligibility and Administration:**

- Aside from its neighborhood-specific nature, the LM-REAP approval process is identical to that for REAP.
- LM-REAP is administered by the New York City Department of Finance.

#### Refund/Transfer/Carryover:

- Benefits are refundable for the year of relocation and the following four years.
- Unused credits from subsequent years may be carried forward for five years.





#### **Lower Manhattan Sales and Use Tax Exemption**

#### Benefit and Area:

- Exemptions from State and local sales tax (8.875 percent) on expenditures for material and equipment.
  - Defined as property purchased by a tenant or landlord for improving commercial premises; property sold to a contractor for use in improving commercial premises; and service of installing property.
  - o For leases in the Lower Manhattan area in the initial year of expansion.

#### Eligibility and Administration:

- The tenant must be the one that is making the improvements or using the property and applying for the exemptions.
- Provided the eligibility criteria are met, sales tax benefits will be made available to the applicant business.
- This program is administered by the New York State Department of Taxation and Finance

#### Refund/Transfer/Carryover:

Benefits are not refundable or transferable, and may not be carried forward.

#### **Commercial Rent Tax Special Reduction (CRT)**

#### Benefit and Area:

- Reduces the Commercial Rent Tax, also known as an occupancy tax, that is ordinarily assessed at 3.9 percent of
- Requires a lease for premises in Lower Manhattan or a World Trade Center facility.

#### **Eligibility and Administration:**

- Leases must be for no fewer than 10 years for a facility at which 125 people will be employed.
- Company must make improvements of \$35 per square foot.
- The CRT special reduction is administered by the New York City Department of Finance.

Refund/Transfer/Carryover: Benefits are not refundable or transferable, and may not be carried forward.

#### Lower Manhattan Energy Program (LMEP)

#### Benefit and Area:

• A reduction of up to 45 percent in electricity, transportation, and delivery costs at any Lower Manhattan property.

#### **Eligibility and Administration:**

- A Company must make real property improvements in excess of 30 percent of the assessed valuation of the building
- Full benefits last for eight years, followed by a four-year phase-out during which benefits are reduced by 20 percent
- Provided the eligibility criteria are met, benefits will be made available to the applicant business.
- This program is administered by the New York City Department of Small Business Services.

Refund/Transfer/Carry Over: Benefits are not refundable or transferable, and may not be carried forward.

Q3. If any of the programs or incentives described in the summary of total incentives are uncertain or not guaranteed, please explain the factors that contribute to such uncertainty and estimate the approximate level of certainty. Please also describe any applicable claw backs or recapture provisions required for each incentive item.

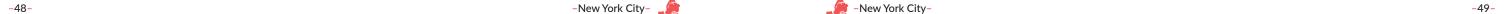
#### **Certainty of incentives**

All of the City-level programs described above are "as-of-right" incentives, meaning that they are available to any applicant who can demonstrate that a project meets eligibility requirements of geography, capital expenditures, employment, or other factors.

Q4. Please provide a timetable for incentive approvals at the state/province and local levels, including any legislative approvals that may be required.

#### **Timetable of incentives**

For all incentive programs listed above, a determination of initial eligibility can be provided within 90 days. These programs have been legislatively authorized; no additional legislative authorization is required.





# PART 3: WORKFORCE AND LABOR

**Q5.** Please provide labor and wage rate information in the general job categories described. Please provide relevant labor pool information and your ability to attract talent regionally. Also, include specific opportunities to hire software development engineers and recurring sourcing opportunities for this type of employment. Please include all levels of talent available in the MSA, including executive talent and the ability to recruit talent to the area.

#### **Labor pool and wages**

#### Employee counts and median wages for six Amazon-requested occupations

	New York-Newark	-Jersey City MSA	New York City	
	# of employees	Median wage	# of employees	Median wage
Software development engineers	278,950	98,430*	137,450	103,230*
Other engineers	57,370	98,430*	10,040	103,230*
Executive / management	163,700	141,960*	85,080	156,440*
Legal	109,720	110,360	66,410	131,860
Accounting	115,680	84,140	68,380	88,520
Administrative	1,527,120	39,250	662,800	41,560

<sup>\*</sup>Estimated median wages, derived using the component occupation codes of the broader occupational category

#### Employee counts for six Amazon-requested occupations across each metropolitan area

	Software development engineers	Other engineers	Executive / management	Legal	Accounting	Administrative
New York-Newark-Jersey City	278,950	57,370	163,700	109,720	115,680	1,527,120
Washington-Arlington-Alexandria	209,800	44,500	77,810	68,000	40,980	408,880
Los Angeles-Long Beach-Anaheim	155,050	65,070	110,660	51,820	60,960	982,470
Dallas-Fort Worth-Arlington	134,200	41,470	51,820	24,750	37,960	625,950
San Francisco-Oakland-Hayward	131,540	32,920	45,720	24,380	25,790	332,300
Chicago-Naperville-Elgin	128,760	42,520	107,440	37,730	43,160	700,350
San Jose-Sunnyvale-Santa Clara	126,770	42,680	19,530	7,790	13,620	130,540
Boston-Cambridge-Nashua	125,850	32,110	65,280	25,910	30,900	385,060
Seattle-Tacoma-Bellevue	120,810	30,600	30,270	14,790	19,340	262,120
Atlanta-Sandy Springs-Roswell	111,800	27,020	65,020	22,310	27,500	401,220
Philadelphia-Camden-Wilmington	90,710	30,560	38,190	31,200	29,540	465,930

#### Ability to attract regional talent

#### Comparison of college student counts by metropolitan areas (2014)

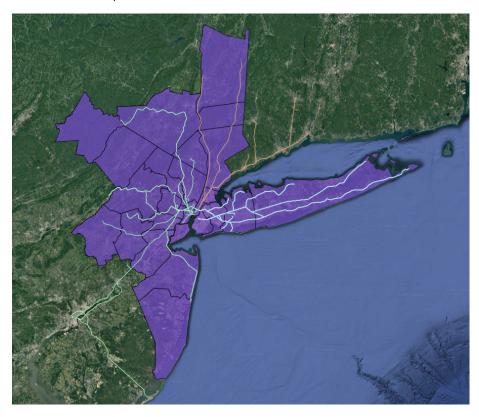
Metro Area	Total college students enrolled in 2014
New York	1,057,288
Los Angeles	974,013
Chicago	502,189
Boston	346,157
Philadelphia	342,994

- Metro retention rate for graduates of four-year institutions: 71.1 percent
- Number of people with a bachelor's degree or higher who relocated to New York City in 2016: 82,500

#### Degrees conferred for five Amazon-requested occupations in New York City

Degree Type (Metro Area)	2013	2014	2015	Total
Engineering	5,244	5,382	5,902	16,528
Executive Management	17,504	18,186	18,294	53,984
Legal	3,874	3,416	3,056	10,346
Accounting	3,575	3,546	3,564	10,685
Administration	13,300	13,479	13,557	40,336
Total	43,497	44,009	44,373	131,87

5.3 million residents with a bachelor's degree or higher, including 2.28 million with graduate or professional degrees, live in the New York-New Jersey-Pennsylvania region, seamlessly connected by the Metro-North, Long Island Railroad, and New Jersey Transit commuter systems.



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#### Opportunities to hire software development engineers

Growth in employees in tech occupations (2011-2016, New York-Newark-Jersey City MSA)

Cluster of 2011 and 2016 job counts for each occupation; growth rate percentages over each cluster

#### NYC has grown its tech talent substantially in the past 5 years

Tech Occupation	Employment in 2011	Employment in 2016	Growth (2011-2016)
Software Developers, Programmers, Analysts, and Network Architects	116,070	146,400	26.13%
Computer Support, Database, and Systems	118,000	132,550	12.33%
Computer & Information Systems Managers	30,460	32,140	5.52%
Technology Engineering-Related	18,800	21,670	15.27%
Total	283,330	332,760	17.45%

#### Thousands of computer scientists graduate from New York City's higher education institutions each year

New York City has more than 25 higher education institutions offering computer science education at the bachelor's degree, master's degree, and doctorate level. During the 2014-2015 academic year, more than 2,500 students in computer science disciplines graduated from those institutions. A table further in the appendix lists New York City's universities and community colleges offering engineering degrees, and the number of graduates from each over the last three years. This extensive network of institutions would provide ample opportunities to recruit software development engineers locally.

#### Annual career fairs hosted by academic institutions provide recruiting opportunities

Each year, over 1,000 career fairs take place in New York City, ranging from general sessions to those that focus on a particular industry (e.g. tech) or skill (e.g. engineering). Many of the fairs include a conference component, providing employers with opportunities for promotion and networking with others in the industry.

Here are two examples of New York City-based career fairs relevant to Amazon:

- Uncubed: Tech-focused career fairs that help companies from startups to the Fortune 100 fill anywhere from five to 500 or more open roles. Attendees include Snapchat, Pinterest, United Technologies, Boxed, Jet, IBM, and BuzzFeed. The conference portion has featured the Head of Global Human Resources at GE Business Innovations, the CTO of Rent the Runway, and the CEO of Makerbot.
- Startup Job Fair New York City: Connects talented job seekers with the best New York City-based startups. It receives support from organizations including Indeed, IAC, Techstars, Columbia University, and New York University.

Many of the 100+ academic institutions in New York City host on-campus recruiting sessions throughout the year, often with a particular focus, like engineering, legal, business, or computer science.

#### New York City has more coding bootcamp schools than any other city

New York City has 22 coding bootcamp schools - more than any other city in the United States or Canada (as of June 1, 2017). These schools provide an expansive and growing pool of recruits in software development.

Q6. Please include programs/partnerships currently available and potential creative programs with higher education institutions in the region in your response. Please also include a list of universities and community colleges with relevant degrees and the number of students graduating with those degrees over the last three years. Additionally, include information on your local/regional K-12 education programs related to computer science.

#### Local and regional K-12 programs related to computer science

Institution	Program Name	School Year	Focus	Program Description
NYC Department of Education	Computer Science for All (CS4All)	K-12	Computer Science	In 2015, Mayor de Blasio announced CS4AII, a 10-year, \$81 million initiative that will enable all 1.1 million students in NYC's school system to study computer science across grades K-12 by 2025. Nearly 1,000 teachers have been trained and last year, close to 90,000 students received instruction across 500+ schools.
NYC Department of Education	Career and Technical Education (CTE)	High School	Various Areas	CTE students graduate from high school with industry-recognized technical and employability skills. CTE supports nearly 60,000 students annually, with over 200 programs, including engineering, robotics, media tech, design, business management, and distribution and logistics.
NYC Department of Education	NYC P-TECH	High School through Associate's Degree	Various Areas	A six-year high school program, that prepares students for college and a career in a competitive industry. Each of seven NYC P-TECH schools is affiliated with a CUNY Community College that offers courses towards an Associate's Degree (at no cost), an industry partner to help students explore careers options, and skills training.
NYC Department of Education	BROOKLYN STEAM CENTER @Brooklyn Navy Yard	High School	Brooklyn S.T.E.A.M. (Science, Technology, Engineering, Arts, and Math)	S.T.E.A.M. Center students receive high quality preparation, real work experience and industry networks, and tangible pathways to economic opportunity. The Brooklyn S.T.E.A.M. Center community is represented by eight New York City Department of Education Public High Schools, elected officials, the Brooklyn Navy Yard, and corporate and industry tenants of the Brooklyn Navy Yard, all dedicated to delivering high quality career and technical education and real-world learning experiences.
NYC Department of Education	Urban Assembly Institute of Math & Science for Young Women	High School	Math and Science	The UA Institute empowers young women through rigorous math and science education. Through partners, students have the opportunity to participate in a range of internships. Partners connect students with role models and mentors who inspire them to not only to challenge their self-perceptions but also the stereotypes that exist for women in math and science.

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NYC Department of Youth & Community Development	School's Out New York City (SONYC)	Middle School	STEM	Across 500 after-school programs, more than 67,000 students participate in SONYC. The City requires all SONYC programs to provide a minimum of two hours per week in STEM or Literacy.
NYC Department of Youth & Community Development	Leggo My LEGO	4th to 8th grade	Robotics	Students compete in a project-based, hands- on LEGO robotics competition that introduces STEM concepts to fourth- to eighth-grade students. Over 300 project submissions were received in the most recent competition.
CUNY	CUNY Early College Initiative	High School	STEM	At 17 public schools in New York City, this program blends a rigorous college-prep curriculum with the opportunity to earn up to two years of college credit while in high school – at no cost to students or their families.  The focus is on under-represented groups of young people embarking on STEM-focused careers. Participants include 4A's, Con Ed, IBM, Microsoft, and Montefiore Medical Center.
NYU	GenCyber Computer Science for Cyber Security	High School	Cybersecurity	In this free three-week, full-day summer program, high school women are introduced to the fundamentals of cyber security and computer science at the NYU Tandon School of Engineering.
Cornell Tech	Computer Science Teachers Association Meetings	K-12	Computer Science	Cornell Tech's campus is host of the Computer Science Teachers Association chapter and one of the largest monthly CS teacher meet-ups in the nation, bringing together CS teachers and nonprofits that incorporate computing.

### Public NYC technical schools or schools that offer technical electives

	Location	School	CTE High School	High School with CTE Programs
1	Bronx	Alfred E. Smith Career and Technical Education High School	х	
2	Bronx	Bronx Academy for Software Engineering	х	
3	Bronx	Bronx Design and Construction Academy	х	
4	Bronx	Crotona International High School	х	
5	Bronx	Health Education and Research Occupations	х	
6	Bronx	High School for Energy and Technology	х	
7	Bronx	High School of Computers and Technology	х	
8	Bronx	Academy for Language and Technology		х
9	Bronx	Academy for Scholarship and Entrepreneurship: A College Board School		х
10	Bronx	Banana Kelly Collaborative High School		x
11	Bronx	Bronx Early College Academy		х
12	Bronx	Bronx Engineering and Technology Academy		x
13	Bronx	Bronx High School for Business		х
14	Bronx	Bronx High School for Law and Community Service		x
15	Bronx	Bronx High School for Visual Arts		x
16	Bronx	Bronx International High School		х
17	Bronx	Bronx School of Law and Finance		x
18	Bronx	Bronxdale High School		х
19	Bronx	Felisa Rincon De Gautier Institute for Law and Public Policy		х
20	Bronx	Fordham High School for the Arts		х
21	Bronx	Herbert H. Lehman High School		х
22	Bronx	In-Tech Academy (M.S./ High School 368)		х
23	Brooklyn	Academy for Health Careers	х	
24	Brooklyn	Academy of Innovative Technology	Х	
25	Brooklyn	Automotive High School	Х	
26	Brooklyn	City Polytechnic High School of Engineering, Architecture and Technology	Х	
27	Brooklyn	Clara Barton High School	х	
28	Brooklyn	George Westinghouse Career and Technical Education High School	Х	
29	Brooklyn	High School for Innovation in Advertising and Media	Х	
30	Brooklyn	Pathways in Technology Early College High School (P-Tech)	х	
31	Brooklyn	Transit Tech Career and Technical Education High School	х	
32	Brooklyn	W.H. Maxwell Career and Technical Education High School	х	
33	Brooklyn	William E. Grady Career and Technical Education High School	х	
34	Brooklyn	Williamsburg High School for Architecture and Design	х	
35	Brooklyn	Urban Assembly School for Collaborative Healthcare	Х	
36	Brooklyn	Abraham Lincoln High School		х
37	Brooklyn	Boys and Girls High School		х
38	Brooklyn	Brooklyn Academy for Global Finance		х
39	Brooklyn	Brooklyn Studio Secondary School		х
40	Brooklyn	Brooklyn Technical High School		х
41	Brooklyn	Cobble Hill School of American Studies		x

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	Location	School	CTE High School	High School with CTE Programs
42	Brooklyn	Edward R. Murrow High School		х
43	Brooklyn	Fort Hamilton High School		х
44	Brooklyn	High School for Enterprise, Business and Technology		х
45	Brooklyn	High School for Telecommunications, Arts and Technology		х
46	Brooklyn	James Madison High School		х
47	Brooklyn	John Dewey High School		х
48	Brooklyn	Life Academy High School for Film and Music		х
49	Brooklyn	Midwood High School		х
50	Brooklyn	New Utrecht High School		х
51	Brooklyn	School for International Studies		х
52	Brooklyn	School for Legal Studies		х
53	Brooklyn	Science Skills Center High School for Science, Technology and the Creative Arts		x
54	Brooklyn	World Academy for Total Community Health High School (WATCH)		X
55	Manhattan	Academy for Software Engineering	х	
56	Manhattan	Art and Design High School	х	
57	Manhattan	Chelsea Career and Technical Education High School	х	
58	Manhattan	Food and Finance High School	X	
59	Manhattan	High School of Fashion Industries	X	
60	Manhattan	Inwood Early College for Health Information Technologies	X	
61	Manhattan	Manhattan Early College School for Advertising	X	
62	Manhattan	Stephen Mather for Building Arts and Craftsmanship High School	x	
63	Manhattan	Union Square Academy for Health Sciences	X	
64	Manhattan	Urban Assembly Gateway School for Technology	X	
65	Manhattan	Urban Assembly Maker Academy	x	
66	Manhattan	Urban Assembly New York Harbor School	X	
67	Manhattan	Urban Assembly School for Emergency Management	X	
68	Manhattan	Urban Assembly School for Global Commerce	X	
69	Manhattan	Urban Assembly School for Green Careers		
70	Manhattan	Columbia Secondary School	X	v
71	Manhattan	Fiorello H. La Guardia High School for Music and Arts and Performing Arts		X
	Manhattan	High School for Health Professions and Human Services		X
72 73	Manhattan	High School for Law and Public Service		X
	Manhattan			X
74 75		High School of Economics and Finance		X
75 74	Manhattan	Jacqueline Kennedy Onassis High School		X
76	Manhattan	Manhattan Bridges High School		X
77	Manhattan	Manhattan Business Academy		X
78	Manhattan	Maxine Greene High School for Imaginative Inquiry		X
79	Manhattan	Murry Bergtraum High School for Business Careers		X
80	Manhattan	Talent Unlimited High School		X
81	Manhattan	University Neighborhood High School		X
82	Queens	Academy for Careers in Television and Film	Х	
83	Queens	Aviation High School	х	

	Location	School	CTE High School	High School with CTE Programs
84	Queens	Benjamin Franklin High School of Finance and Information Technology	х	
85	Queens	Business Technology Early College High School	x	
86	Queens	Energy Tech High School	x	
87	Queens	High School for Construction Trades, Engineering and Architecture	x	
88	Queens	Institute for Health Professions at Cambria Heights	x	
89	Queens	Queens Vocational and Technical High School	x	
90	Queens	Thomas Edison Career and Technical Education High School	x	
91	Queens	Academy of Finance and Enterprise		х
92	Queens	August Martin High School		Х
93	Queens	Bayside High School		х
94	Queens	Cambria Heights Academy		х
95	Queens	Flushing High School		х
96	Queens	Forest Hills High School		х
97	Queens	Francis Lewis High School		х
98	Queens	Frank Sinatra School of the Arts		Х
99	Queens	George Washington Carver High School for the Sciences		х
100	Queens	Grover Cleveland High School		х
101	Queens	High School for Arts and Business		Х
102	Queens	Hillcrest High School		х
103	Queens	Information Technology High School		х
104	Queens	John Adams High School		х
105	Queens	John Bowne High School		х
106	Queens	Long Island City High School		х
107	Queens	Newtown High School		х
108	Queens	Queens High School for Information, Research and Technology (QIRT)		х
109	Queens	Richmond Hill High School		х
110	Queens	The Young Women's Leadership School of Astoria		х
111	Queens	Townsend Harris High School		х
112	Queens	William Cullen Bryant High School		х
113	Staten Island	Ralph McKee Career and Technical Education High School	×	
114	Staten Island	Curtis High School		х
115	Staten Island	New Dorp High School		х
116	Staten Island	Port Richmond High School		х
117	Staten Island	Staten Island Technical High School		х
118	Staten Island	Susan Wagner High School		х
119	Staten Island	Tottenville High School		х

# Universities and community colleges with relevant degree programs

GRADUATES OF NYC HIGHER EDUCATION INSTITUTIONS OVER PAST THREE YEARS (2014–2016) IN ENGINEERING DISCIPLINES RELEVANT TO AMAZON

	Comput	ter	Chem	ical	Civil		Electr	ical	Mech	anical	Other		Engine	eering	Indust	trial	Mate	ials	<b>-</b>	
	Science		Engin	eering	Engine	eering	Engine	eering	Engin	eering	Engin	eering		ologies	Engin	eering	Engin	eering	Total	
Academic Institution (standardized)	Bachelor's	Graduate																		
Barnard College	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13	-
Berkeley College, New York	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-
CUNY, Baruch College	389	127	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	389	127
CUNY, Brooklyn College	231	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	231	84
CUNY, City College	83	129	106	47	162	100	286	130	203	73	80	47	-	-	-	-	-	-	920	526
CUNY, Graduate Center	-	66	-	5	-	1	-	13	-	4	-	9	-	-	-	-	-	-	-	98
CUNY, Hunter College	132	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	132	-
CUNY, John Jay College of Criminal Justice	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	93	-
CUNY, Lehman College	200	22	-	-	-	-	-	-	-	-	-	17	-	-	-	-	-	-	200	39
CUNY, Medgar Evers College	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	-
CUNY, New York City College of Technology	472	-	-	-	-	-	-	-	-	-	-	-	315	-	-	-	-	-	787	-
CUNY, Queens College	210	39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210	39
CUNY, York College	109	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-	-	-	142	-
Columbia University in the City of New York	273	724	132	164	171	488	136	703	182	266	158	215	-	-	12	240	19	42	1,083	2,842
Cooper Union for the Advancement of Science and Art, The	-	-	68	18	67	18	86	14	79	11	17	-	-	-	-	-	-	-	317	61
Cornell University, Graduate School of Medical Sciences	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11

	Compu		Chem Engine	ical eering	Civil Engine	eering	Electr Engine	ical eering	Mech Engin	anical eering	Other Engine	eering		eering ologies	Indust Engine	trial eering	Mate: Engin	rials eering	Total	
Academic Institution (standardized)	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate
Fordham University	122	104	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	156	104
Long Island University, Brooklyn	28	23	-	-	-	-	-	-	-	-	-	-	-	62	-	-	-	-	28	85
Manhattan College	43	-	80	30	285	92	87	22	114	60	-	-	-	-	-	-	-	-	609	204
Monroe College, Bronx	257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	257	-
New York University	314	1,629	88	14	92	161	156	514	161	72	-	42	25	53	-	101	-	-	836	2,586
Pace University, New York	195	337	1	-	-	-	-	34	-	-	-	-	97	21	-	-	-	-	293	392
Polytechnic Institute of New York University	57	240	30	18	49	98	61	239	65	23	-	26	-	-	28	118	-	4	290	766
SUNY, Downstate Medical Center	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	4
SUNY, Maritime College	-	-	-	-	-	-	41	-	118	-	170	-	-	-	72	-	-	-	401	-
School of Visual Arts, New York	185	137	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	185	137
St. Francis College	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	-
St. John's University, New York	173	-	-	-	-	-	-	-	-	-	-	-	133	-	-	-	-	-	306	-
St. Joseph's College, Brooklyn	65	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65	-
Touro College	67	133	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	67	133
Vaughn College of Aeronautics and Technology	-	-	-	-	-	-	-	-	12	-	-	-	103	-	-	-	-	-	115	-
Wagner College	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-
Yeshiva University	23	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	31	-
Total	3,868	3,794	505	307	826	958	853	1,669	934	509	467	360	706	136	112	459	19	46	8,290	8,238

# GRADUATES OF NYC HIGHER EDUCATION INSTITUTIONS OVER THE PAST THREE YEARS (2014–2016) IN NON-ENGINEERING DISCIPLINES RELEVANT TO AMAZON

	Business Manage		Economi	ics	Law		Account	ting	Adminis	trative	Design		Total	
Academic Institution (standardized)	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate
Barnard College	-	-	182	-	-	-	-	-	569	-	-	-	751	-
Berkeley College, wNew York	1,891	-	-	-	-	-	244	-	-	-	-	-	2,135	-
Boricua College	53	-	-	-	-	-	-	-	-	-	-	-	53	-
Brooklyn Law School	-	-	-	-	-	1,191	-	-	-	-	-	-	-	1,191
CUNY, Baruch College	6,975	2,523	191	-	-	-	1,732	660	659	253	-	-	9,557	3,436
CUNY, Brooklyn College	2,167	317	41	82	-	-	788	65	1,888	188	21	-	4,905	652
CUNY, City College	197	-	211	72	-	-	-	-	1,633	178	-	-	2,041	250
CUNY, Graduate Center	233	255	-	70	-	-	-	-	290	1,006	-	-	523	1,331
CUNY, Hunter College	386	96	253	39	-	-	386	96	3,435	399	-	-	4,460	630
CUNY, John Jay College of Criminal Justice	-	-	265	-	-	-	-	-	2,019	253	-	-	2,284	253
CUNY, Lehman College	1,067	186	125	-	-	-	424	67	1,285	-	22	-	2,923	253
CUNY, Medgar Evers College	545	-	-	-	-	-	104	-	200	-	-	-	849	-
CUNY, New York City College of Technology	461	-	-	-	-	-	-	-	-	-	6	-	467	-
CUNY, Queens College	1,604	401	668	-	-	402	1,288	362	3,102	648	215	-	6,877	1,813
CUNY, York College	569	-	43	-	-	-	203	-	873	-	-	-	1,688	-
College of Mount Saint Vincent	128	21	2	-	-	-	9	-	279	-	-	-	418	21
Columbia University in the City of New York	245	4,793	784	181	-	1,328	-	-	974	2,013	-	-	2,003	8,315
Columbia University, Teachers College	-	-	-	123	-	-	-	-	-	1,600	-	-	-	1,723
Fordham University	1,727	2,496	340	75	-	1,347	396	371	1,590	335	-	-	4,053	4,624
Jewish Theological Seminary of America	22	30	-	-	-	-	-	-	18	-	-	-	40	30
LIM College	863	195	-	-	-	-	-	-	-	-	-	-	863	195
Long Island University, Brooklyn	144	274	6	-	-	-	42	82	194	156	-	-	386	512
Manhattan College	453	79	30	-	-	-	82	39	336	-	-	-	901	118
Marymount Manhattan College	99	-	-	-	-	-	10	-	345	-	15	-	469	-
Metropolitan College of New York	189	629	-	-	-	-	-	-	38	-	-	-	227	629
Monroe College, Bronx	1,326	441	-	-	-	-	381	-	-	-	-	-	1,707	441
New School, The	-	206	19	118	-	-	-	-	344	1,041	1,375	191	1,738	1,556
New York Law School	-	-	-	-	-	1,329	-	-	-	-	-	-	-	1,329

	Business Manager		Economi	ics	Law		Account	ing	Adminis	trative	Design		Total	
Academic Institution (standardized)	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate	Bachelor's	Graduate
New York School of Interior Design	-	-	-	-	-	-	-	-	-	-	140	167	140	167
New York University	2,224	6,628	1,303	254	-	1,513	35	180	2,814	2,234	-	379	6,376	11,188
Pace University, New York	1,653	1,365	64	4	-	659	422	463	1,104	315	-	-	3,243	2,806
Plaza Business Institute	97	-	-	-	-	-	-	-	-	-	-	-	97	-
Polytechnic Institute of New York University	-	19	-	-	-	-	-	-	10	-	-	-	10	19
Pratt Institute	39	24	-	-	-	-	-	-	-	324	554	232	593	580
SUNY, Fashion Institute of Technology	1,681	97	-	-	-	-	-	-	704	10	1,187	5	3,572	112
SUNY, Maritime College	426	188	-	-	-	-	-	-	-	-	-	-	426	188
School of Visual Arts, New York	-	-	-	-	-	-	-	-	120	75	577	127	697	202
St. Francis College	248	80	53	-	-	-	66	80	400	11	-	-	767	171
St. John's University, New York	1,243	1,046	81	-	-	814	350	438	1,361	371	27	-	3,062	2,669
St. Joseph's College, Brooklyn	626	284	-	-	-	-	190	83	418	-	-	-	1,234	367
Touro College	662	103	5	-	-	611	202	14	1,145	28	41	37	2,055	793
Vaughn College of Aeronautics and Technology	18	7	-	-	-	-	-	-	-	-	-	-	18	7
Wagner College	220	184	9	-	-	-	-	52	191	-	-	-	420	236
Yeshiva University	437	99	87	13	-	1,152	195	84	310	250	-	-	1,029	1,598
Total	30,918	23.066	4,762	1,031	_	10,346	7,549	3.136	28,648	11,688	4,180	1,138	76,057	50,405

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# **Examples of existing R&D programs within higher education institutions**

	Academic Institution	Focus	Program	Industry Partners
1	NYC Cross- University Collaboration (Columbia, NYU, School of Visual Arts, The New School, CUNY, IESE, and Pratt Institute)	Media Tech	NYC Media Lab: Dedicated to driving innovation in media and technology by facilitating collaboration between the City's universities and its companies. In 2016, the program launched the Combine, a technology accelerator aimed at moving university technologies from lab to market by providing teams with commercialization education, and engagement with Media Lab member corporation resources and mentorship. In the past two years, the Combine has received over 70 applications, accepted 21 teams, and launched 15 startups. These startups have collectively raised \$2.5MM in venture funding, federal grants and other investments; they employ more than 60 people.	A+E Networks, Audible, Bloomberg LP, ESPN, Hearst Corporation, MLB Advanced Media, NBCUniversal, News Corp, Publicis Groupe, Charter Spectrum, Verizon, Viacom, The Weather Company, Associated Press, Rogers Comm., Singtel, and Tenfore Holdings
2	NYC Cross- University Collaboration (CUNY, Columbia, Cornell, Stony Brook University, Brookhaven National Lab)	Cleantech	PowerBridge: Its mission is to turn academic research labs into cleantech businesses. It consists of two components: The PowerBridgeNY accelerator helps technologists/scientists determine product-market fit, de-risk their tech by building early prototypes, and validates their technology through customer and industry interactions. In Hacking for Energy (H4E), grad students working in interdisciplinary groups are given 14 weeks to solve real energy challenges posed by large companies using the Lean LaunchPad entrepreneurship methodology. In the past five years, PowerBridgeNY has received 139 applications, awarded \$3.1M to 27 teams, and launched 12 startups. Awardees have leveraged their success in the program into an additional \$14.9M in follow-on funding	National Grid, GE Ventures, National Grid, Arch Ventures, Dow Chemical, Cycle Capital, True North Ventures, Osage Partners, Rethink Energy, Planet-A-Technology Partners, Hannon Armstrong Sustainable Infrastructure Capital, NYSERDA
3	Columbia	Data Science	Data Science Institute: With over 250 faculty affiliates working in a wide range of disciplines, the Institute seeks to foster collaboration in advancing techniques to gather and interpret data, and to address the urgent problems facing society. The Institute works closely with industry to bring promising ideas to market. Areas of focus include core machine learning, cybersecurity, video and speech processing, robotics, sensors, wireless communications. The Institute is a \$45M initiative.	Adobe, Bloomberg, Booz Allen Hamilton, Capital One, Cisco, Dassault, GE, Goldman Sachs, J.P. Morgan, KPMG, MediaMath, Microsoft, SAP, Synergic, Two Sigma, Unilever, Vanguard, VSP
4	Columbia	Artificial Intelligence	Artificial Intelligence Research Group: Conducts research on machine learning (including topic modeling, graphical models, unsupervised ML, frequent patterns mining), natural language processing (speech generation and analysis, spoken dialogue systems, mining text and speech for emotion and sentiment, machine translation, morphological analysis, and others), and vision/robotics (facial recognition, dexterous manipulation, 3D modeling.) This is a \$6.2M initiative.	Amazon, AT&T, Audible, Bloomberg, DEC, Dropbox, Ford Motor Co., Google, Grammarly, IBM, Intel, Microsoft, Mitsubishi, Persado, Philips, SAP Software Solutions, The Greatest Good, Yahoo

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5	Columbia	Machine Learning, Supply Chain	Supply Chain and Logistics Research Group: Conducts cutting-edge research on policies for inventory control and scheduling, scalable algorithms for inventory and transshipment planning in very large supply chains, machine learning for consistent estimation of demand quantiles, RNN-based policies for inventory management, online platforms for transportation and logistics, smart contracts for supply chains, and reinforcement learning based methods for managing inventories of ads.	Amazon, Fresh Direct, Dussault, Uber, Lyft, Louis Vuitton, Mars, Google, Microsoft, etc
6	Cornell Tech	Multi- disciplinary with tech focus	The Studio: Every fall, leading startups, companies, and organizations in NYC pose Product Challenges to create and build new digital products and services in response to the business needs of real companies and organizations. There are 52 challenges active in the Studio this semester. In the spring, students embark on a startup founding experience that includes identifying nascent markets, generating new product ideas, engaging customers, creating and telling a compelling startup story, and using technical and business expertise to rapidly develop new products. Since 2014, 38 startups (94 percent NYC-based) have formed on campus by 81 founders, employing 173 people, with \$31 million in preseed, seed, and Series A funding raised.	Amazon, New York Times, Oscar Health, Two Sigma, JetBlue Technology Ventures, Bill and Melinda Gates Foundation, Weill Cornell Medical College, Memorial Sloan Kettering, Blue Ridge Labs @ Robin Hood
7	Cornell Tech	Tech	Runway Startup Postdoc Program: Part business school, part research institution, and part startup incubator. Based at the Jacobs Technion-Cornell Institute, Runway ushers recent PhDs in digital technology fields from an academic mindset to an entrepreneurial outlook. The program lasts for 12–36 months and incorporates academic and business mentorship. Runway provides a package valued at \$175,000 that includes a salary, research budget, housing allowance, space and more in the first year. In addition, the Startup Postdoc receives significant benefits and perks and corporate support valued at \$400,000. Since 2013, 16 companies have been created, with more than 70 employees total, and more than \$19M of investment has been obtained.	Amazon, Google, IBM, Microsoft, Mathworks Docsend
8	Cornell Tech	Connected and Augmented Reality	Connected Experiences Lab: The lab pursues multiple topics exploring connected and augmented environments, including augmented reality, recommendation systems, and content quality using methods from machine learning, human computing interaction and social computing. The initiative's work is responsible for Immersive Recommendation Systems, Customizable AR-based Vision Enhancement System, and Hedonic-based Computer Vision. Throughout the year, the lab hosts research discussions, collaboration between supporting entities, and an annual daylong workshop.	AOL, Verizon, Oath
9	Cornell Tech	Crypto- currencies	The Initiative for CryptoCurrencies & Contracts (IC3): This is a collaboration with domain experts in finance and banking, entrepreneurs, regulators, and open source software communities to move blockchain-based solutions from white boards and proof-of-concepts to fast and reliable financial systems of execution and record.	Chain, Microsoft, Intell Fidelity Labs, Digital Asset, IBM, Maryland Cybersecurity Center, UC Berkeley, UIUC

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10	CUNY	Nanotechnology	NanoFabrication Facility @ the CUNY Advance Science Research Center (ASRC): Enables the fabrication and characterization of a wide range of structures and houses a comprehensive set of tools that aid researchers in developing novel micro- and nanoscale devices, such as nanophotonic and solid-state circuits, microelectromechanical systems, and microfluidic systems. The NanoFab is comprised of 5,000 square feet of ISO 6 (Class 1,000) and ISO 5 (Class 100) cleanroom space and contains additional lab space for backend processing and support areas.	Available upon request
11	CUNY	Software	The CUNY Institute for Software Design and Development (CISDD): Pairs CUNY's experienced faculty with software industry professionals and governmental institutions to sponsor and develop the research and creation of new and marketable software technologies, provides specialized professional development courses, and creates job opportunities. CISDD focuses on operating system enhancements, server-side software, Linux, security issues with software, distributed computing, logic, and visualization. Current and past projects include building HVAC systems automation, creating an MTA Express Bus red-light simulation, and developing Taxicab data and messaging system API.	IBM, Intel, HP, Redhat, MTA New York City Transit, NYC Fire Department, NYC Taxi & Limousine Commission, NYC Department of Education, Building Performance Lab, UNICEF
12	CUNY	Advanced Manufacturing	The Engineering Technology 3-D Lab: Helps businesses gain exposure to and training in the latest manufacturing technologies and techniques. Since its launch, students and faculty have developed partnerships with SAP for High Fidelity Prototyping in support of projects using the company's Design Thinking methodology: Memorial Sloan-Kettering Cancer Center, for research on a CAT scan of a patient that will be converted into a 3D model with features that include a skull, brain, eye, skin and other soft tissues, and Standard Motor Products for research centered around the application of QCC's 3D Printing CMM Metrology facility.	SAP, Memorial Sloan- Kettering Cancer Center, Standard Motor
13	NYU	Wireless Devices, Networks, and Applications	NYU WIRELESS: Research covers a wide range of problems in the development of next-generation wireless technology, from basic devices to networks to applications. A key focus area of NYU WIRELESS is in millimeter wave (mmWave) systems operating in the high frequency bands above 10 GHz. This is a \$25M initiative.	AT&T, CableLabs, Huawei, Intel, L3 Communications, National Instruments, Oppo, Qualcomm, UMC, Verizon, Crown Castle, Ericsson, InterDigital, Keysight Technologies, Nextlink, Nokia, SiBeam, Sprint
14	NYU	Urban Informatics, Big Data & Data Visualization	Center for Urban Science and Progress (CUSP): Urban informatics uses data to better understand how cities work, using NYC as its living laboratory. This understanding can remedy a wide range of issues affecting the everyday lives of citizens and the long-term health and efficiency of cities — from morning commutes to emergency preparedness to air quality. This is a \$40M initiative.	IBM, Microsoft, Xerox, Cisco, ConEd, Lutron, National Grid, Siemens, AECOM, Arup, IDEO, Lockheed Martin, University of Warwick, King's College London, and 16 NYC City agencies

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15	NYU	Gov-Tech	The Governance Lab: Designs open data policies and platforms and studies the impact of open data globally. It has advanced public-private big-data partnerships, studied ways expert networks can improve how federal agencies issue patents or examine medical devices, and pioneered the use of "smarter crowdsourcing" to tackle problems like the Zika virus \$8M initiative.	MacArthur Foundation, Omidyar Network, LJAF, MIT Media Lab
16	The New School	Data and Design	The Center for Data Arts: Working in collaboration with scientists, humanities scholars, policy makers, and artists, CDA's research lab and creative studio works to expands the boundaries of data representation, pioneering radical new techniques for transforming complex information into meaningful narrative experiences. Using advanced real-time graphics, immersive physical environments, and virtual reality, CDA aims to fluidly integrate data with people's sensory perception of the world. CDA's practice redefines data visualization to include sound, touch, space, and motion, along with interaction and simulation, resulting in expressive multi-sensory data narratives that make the most of human's perceptual and cognitive strengths.	NASA Jet Propulsion Lab, BAE Systems, HP, D&B, Dow Jones, Goldman Sacs, Siemens, Venters Health Administration, Environmental Research Institute, Pacific Northwest Laboratory, Media Lab Sciences Po Paris, The Chair for Modern Art History at the Technische Universität Berlin, Columbia University
17	The New School	Retail and Consumer Goods	XRC Labs: An innovation accelerator for the next generation of disruptors in the retail and consumer goods sectors. Sponsored by world class retailers and brands as well as founding sponsor organizations Kurt Salmon and the Parsons School of Design at the New School, it is the first of its kind design-centric innovation ecosystem for the retail and consumer goods industries. Providing workspace on the campus of Parsons, access to capital, mentoring, and operational support to emerging companies in the retail and consumer goods industries, XRC Labs runs two 14 week programs each year bringing together entrepreneurs, investors, and sponsors to foster rapid innovation and unlock new opportunities in retail.	BEST BUY, Intel, Lowe's, National Retail Federation, Penguin Random House, Reebok, Shoptalk, Retail Industry Leaders Association, TJX
18	The New School	Data and Design	Parsons Design Lab: The Lab hosts competitions, hackathons, and brainstorming sessions that offer short-term, intensive engagement to source early stage ideas. Interdisciplinary teams with students drawn from across Parsons' five schools capitalize on the school's full complement of expertise to generate innovative and creative solutions to business' most compelling challenges. The Parsons Design Lab conducts indepth design research to generate advanced prototypes and plans. Industry partnerships and support are vital, ensuring that a Parsons education fuses innovative exploration with real-world application.	MasterCard, Intel, Panasonic, Godiva, Cognizant Technology's, Baltimore Symphony, Hugo Boss, Share Our Strength, Ikea, Jeera Foundation, Ford, Lowes

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# **Examples of existing workforce programs with higher education institutions**

	Program	Industry Partners
	NYC CROSS-UNIVERSITY COLLABORATION (COLUMBIA, CORNELL, CUNY, NYU)	
L	Advancing Computer Science Careers through Enhanced Networking and Training (NYC ASCENT)	Available upon request
	Inspired by New York City's emerging tech markets and advances in computer science and engineering, four academic institutions formed a consortium to enhance the postdoctoral experiences and connect the growing community of computing science and engineering postdoctoral fellows with entrepreneurs, technology professionals, and senior researchers both within academia and industry. This academic collaboration provides professional development and increased networking opportunities for its members by implementing several best practice programs, including resources for obtaining funding and getting published, travel awards, the introduction of the Individual Development Plan (IDP), and robust career services.	
2	Women in Technology and Entrepreneurship-NY (WITNY)	Verizon/AOL, Citibank, IBM,
	Aims to increase the number of young women pursuing careers in technology by offering summer programs in technology product design and entrepreneurship for graduating high school senior girls en route to CUNY, scholarships for CUNY undergraduate women, as well as internships and community support to help young women persist in pursuing computer science and related technology degrees. For women considering a master's degree or Ph.D. in computer science and related technology disciplines at Cornell Tech, the WiTNY awards fellowships is available to selected students.	Xerox
	CITY UNIVERSITY OF NEW YORK (CUNY)	
3	Career Pathways Initiative	Available upon request
	The Career Pathways Initiative will focus on 10 key economic sectors and serve as CUNY's central hub between potential employers and CUNY's 24 colleges. The goal is to increase the number of students participating in career development, career exploration, career-focused experiential learning, and internships. In FY2019, CUNY aims to place more than 5,000 students in internships and full-time jobs.	
4	CUNY Tech Consortium	JPMorgan Chase Foundation,
	The CTC supports re-envisioning and enhancing CUNY's tech-related programs by updating curricula, actively engaging with the local tech ecosystem, and better connecting students and graduates with internships and jobs in New York City's tech sector. The Consortium offers a forum where CUNY Central and its college members can learn about tech-related programs and initiatives across CUNY, launch new initiatives that address system-wide opportunities and challenges, and partner with employers, intermediary organizations such as the Tech Talent Pipeline (TTP), and industry partners regarding workforce needs.	The New York Community Trust, Women in Technology New York, Code to Work
5	TechHire	IBM, Walmart, Google, Facebook, General Assembly,
	LaGuardia Community College was one of a handful of sites across the country selected to participate in President Barak Obama's signature technology training initiative, TechHire. Through a \$3.9M grant from the Department of Labor over the next few years, LaGuardia will promote diversity in the technology workforce by training 425 young adults with barriers to employment and incumbent workers for positions averaging \$60,000 a year in web development, software development, and computer network support. The intensive full-time program lasts 4 to 5 months and begins with a tech pre-training program and foundational coding course at LaGuardia before students continue to advanced training tracks offered by General Assembly, Udacity, Uncubed, and the Software Guild in partnership with LaGuardia.	Udacity, Software Guild

6	CUNY Tech Prep	Available upon request
	This yearlong program provides exceptional computer science majors from 11 CUNY senior colleges with industry-informed web development training and professional development coaching. Participants attend once-a-week classes that blend technical instruction and experiential learning via small team projects. The 2017-18 program will equip approximately 110 undergraduate students with in-demand technical and professional skills and connections to paid technical internships or full-time technical employment.	
7	CUNY Techworks	Available upon request
	Launched in 2017, CUNY Techworks' mission is to connect underrepresented and low-income New Yorkers to the growing number of opportunities in New York City's thriving tech sector via no-cost applied skills education and training in software application development, web design and development, and IT systems administration.	
8	LaGuardia's Center for Contract Training (CCT)  CCT provides customized consultative learning and development services for corporations, public sector agencies, and nonprofit organizations. Its staff assesses, designs, develops, delivers and evaluates customized training initiatives that support the growth of an organization's employee skill base.	Memorial Sloan Kettering Cancer Center, Emblem Health, NYC Department of Administrative Service, others available upon request
9	Revature @ CUNY	Revature
	Since CUNY began working with Revature in 2016, more than 3,500 CUNY students and graduates from a range of majors have enrolled in Revature's tuition-free, noncredit online coding programs. Revature is on track to hire more than 200 CUNY graduates by the end of 2017. While the initial partnership offered online training to CUNY students and alumni regardless of gender, the latest initiative targets women, who are greatly underrepresented in the tech workforce.	
10	AR/VR Training Academy & Development Lab	EON Reality Inc.
	In January 2017, EON Reality Inc. partnered with Lehman College to offer an Augmented and Virtual Reality Academy and Development Lab. CUNY students and NYC residents participate in an 11-month applied course of study. Coursework includes animation, 3D graphics, and web design, with direct links to employment opportunities.	
11	Infor Center of Excellence (CoE)	Infor
	City Tech's partnership with Infor, through its Education Alliance Program, led to the development of the Center of Excellence (CoE), an innovative lab and learning environment where participants enjoy access to cutting-edge software, such as Infor's Mongoose, as well as guidance from faculty who collaborate with students on projects. Hands-on experience will prepare participants to enter career paths including system analyst, developer, integration consultant, and application developer.	
	OTHER SAMPLE PARTNERS	
12	Per Scholas  A 22-year-old national nonprofit, founded and based in the South Bronx. Through rigorous and tuition-free technology training and professional development, it prepares motivated and curious adults who are low-income and unemployed or underemployed for successful careers as IT professionals, and creates on-ramps to businesses that need them. Per Scholas provides technical career training, job placement, and comprehensive support services for 500 to 550 jobseekers each year. Amazon has hired 12 Per Scholas graduates, including eight in NYC.	Barclays, Cognizant, JP Morgan & Chase, AT&T, Bloomberg, CapitalOne, Citi, Google, MetLife, PIMCO Foundation, TEK Systems, Thrive, Workday, BNY Mellon, CompuCom, ConEd, Dynamic Network Solutions, Intersection, Kate Spade & Company Foundation, Nationwide, Neuberger Berman, Verizon, among others

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13	General Assembly	Various Fortune 1000 companies, available upon
	General Assembly is designed to prepare students for a new career in their field of study,	request
	in topics such as web development, user experience design, Android development, data	
	science, front-end web development, digital marketing, and more.	
14	INFRONT Minority Venture Partners (MVP)	UniWorld Group, NY Private Equity Forum, Pryor
	INFRONT connects local women and minority technologists to business training and technology resources to develop the technical skills to gain access to high-tech jobs or develop their own tech ideas commercially. Programming includes workshops (e.g. 3-D printing, coding), at no cost; entrepreneurship training; facilities and support by staff, faculty and students; and networking opportunities and internships with other businesses and partners. Winner of the 2015 US Small Business Administration Growth Accelerator Competition.	Cashman, LLP
15	YMI Training Partnerships	Available upon request
	YMI connects tech training partners with communities of low-opportunity, high-potential New Yorkers. YMI can help connect employers to a vast youth, young adult, and adult population through partners including NYCHA, the Department of Education, the Department. of Youth and Community Development), and the Department	
	of Probation. Particular areas of training focus are the advanced coding and cloud applications that are critical for growth. YMI could, for example, help a company develop a partnership with the City's JobsPlus program to develop a certification for public	
	housing residents through "self-guided" online AWS training. Other options also include developing an intensive Per Scholas program for communities of color that creates a dedicated certification track for AWS, or working with Tech Talent pipeline to develop custom solutions for specific communities.	
16	JobsPlus	Available upon request
	JobsPlus is a proven, place-based employment program designed to increase the earnings and employment potential of working-age residents in designated public housing developments. It has resulted in a 16 percent increase in average annual earnings for working-age public housing residents through job readiness assistance, skills training, and other support services. The City of New York has invested over \$24 million to expand the Jobs-Plus program to nine sites across 26 housing developments citywide. This expansion is designed to secure job placements for more than 4,400 residents and is a significant component of the Young Men's Initiative.	
17	Upwardly Global's Job Search Training Program	Accenture, Per Scholas, JP Morgan Chase, Oliver
	Upwardly Global directly serves highly skilled immigrants, refugees, and asylees with degrees and work experience outside the United States who seek to continue careers in fields including engineering, accounting, law, business, and data. Participants receive industry-specific resources, networking events, and opportunities for reskilling and certification courses through national partnerships with Accenture, Coursera, and others. In the last year, the organization has supported 220 placements overall in New York	Wyman, Boston Consulting Group, Western Union, Wel Fargo, AIG, Microsoft

# **Examples of existing faculty exchanges**

Our institutions have a track record of joint appointments and corporate-faculty exchanges that allow employers to inform the curriculum of the future.

-	Academic Institution	Industry Partner	Description
1	Columbia	Google	Network Infrastructure: Redesigning optimization mechanism that does bandwidth allocation
2	Columbia	Google	Algorithms for parsing and machine translation
3	Columbia	Microsoft	Advanced machine learning algorithms
4	Columbia	IEX	Improving secure trading protocols
5	Columbia	23andme	Inference of haplotypes from direct to consumer genetics data
6	Columbia	Dropbox	Face recognition
7	Columbia	Infinio	Networking software
8	Columbia	Meta Company	Virtual reality innovation
9	Columbia	Chip Scan Inc.	Security for drones
10	Columbia	MyHeritage	Commercial aspects of genomics
11	Columbia	IBM Research	Video interpretation/understanding
12	Columbia	Qualcomm	Hardware security and chip design
13	NYU	Facebook	Yann LeCun, Professor of Computer Science and Founding Director of NYU's Center for Data Science also serves Director of Al Research at Facebook
14	NYU	NY Genome Center	Faculty work with the NY Genome Center on projects while retaining their positions at NYU
15	NYU	Simons Foundation	Faculty work with the NY Genome Center on projects while retaining their positions at NYU
16	The New School	Cognizant Technologies	Ethnography, data, and healthcare innovation for Cognizant's healthcare vertical
17	The New School	Godiva	User experience design for Godiva's retail locations: How to attract and capture the millennial market in a crowded space
18	The New School	Intel	New innovations for the Intel chip
19	The New School	MasterCard	Wearable tech new methods of payment
20	The New School	Baltimore Symphony	Make music people can see

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# Ideas for R&D partnerships with higher education institutions

	Program	Similar Models in NYC	Potential Academic Partner
1	Cross-University R&D Labs That Cater to Amazon's Needs  Our institutions can build on their strong track record of R&D partnerships, working with you to develop new labs dedicated to key focus areas like artificial intelligence, voice, and machine learning. Labs can supply R&D equipment, platforms for shared research, co-working space, and even start-up accelerators.	PowerBridgeNY	Cornell Tech, Columbia, CUNY, NYU, among others
2	Entrepreneur-In-Residence Program Partnerships  Work with our institutions to design entrepreneurs-in-residence programs to fit your research needs. Programs match start-up founders with domain experts and venture capital funding, often supported by corporate partners. For example, you could sponsor a program in Artificial Intelligence and have direct access to startups that may become future customers or acquisition targets.	Various entrepreneurs- in-residence programs	Various potential partners
3	Amazon Faculty Exchange  Our universities host a number of faculty exchanges with companies like Google, Facebook, and the Genome Center that allow faculty to work for a company while retaining teaching positions. The new CUNY Tech-in-Residence Corps program, for example, will connect industry professionals with opportunities to serve on campus and in the classroom, devising and delivering education that aligns with evolving industry needs. You can leverage these joint appointments for new talent and to educate our faculty about your talent needs, whether they be in artificial intelligence or voice technology.	Faculty Exchanges with Google and Facebook; the Genome Center	Columbia, NYU, among others
4	Hacking for Amazon  Like the cross-university projects we've developed through the NYC Media Lab and other programs, we can develop organized competitions for teams across our universities to solve Amazon's technical challenges with mentorship from our faculty and your employees.	NYC Media Lab	Cornell Tech, Columbia, CUNY, NYU, The New School, School of Visual Arts, Pratt Institute, among others
5	Cornell Tech Studio  Students across all Cornell Tech programs come together to design, build, and share their work, getting vital feedback from their peers, faculty, and practitioners from the NYC tech community. Every fall, leading startups, companies, and organizations in NYC pose Product Challenges to create and build new digital product and services in response to the strategic business needs of real companies and organizations including, this semester, Amazon. Currently, there are 52 active challenges in The Studio. Other partners include The New York Times, Oscar Health, Two Sigma, and JetBlue Technology Ventures.	Cornell Tech Studio	Cornell Tech

# Ideas for workforce programs with higher education institutions

	Program	Similar Models in NYC	Potential Academic Partner
1	Tech Talent Pipeline  Join the Tech Talent Pipeline's council of 28 top tech employers to help build a pipeline of diverse talent equipped with the tech skills you need. We invite you to meet with TTP's Academic Council – 16 presidents and provosts of local public and private colleges — and explore new areas of potential collaboration across degree programs. Or join industry partners who are helping to shape the City's investments to double the number of tech bachelor's recipients.	Tech Talent Pipeline	Various potential partners
2	Degrees and Certifications Designed Around Your Needs  Building on the success of NYC ASCENT (Advancing Computer Science Careers through Enhanced Networking and Training) at NYU, CUNY, Columbia, and Cornell Technion – together we can develop a certification program for specific skills you need. This could be a collaboration across a number of our academic institutions, or in partnership with individual universities.	NYC ASCENT	NYU, CUNY, Columbia, Cornell Tech, other potential partners
3	Amazon-Specific Per Scholas Training Programs and Hiring  Per Scholas is a non-profit focused on overlooked talent pools, teaching tech skills and professional development tailored to the needs of businesses. Per Scholas is developing a Systems Administrator course featuring AWS certifications to be launched in 2018, and looks forward to collaborating on new curricula.	Per Scholas	Per Scholas
4	Women in Technology and Entrepreneurship in New York (WiTNY)  Many of WiTNY's programs were innovations born from academic and corporate partnerships. WiTNY is seeking additional companies to offer customizations to its programs in Curriculum Innovation, Career Access, and Community Development. This includes but isn't limited to engaging with Amazon employees to teach innovative concepts and subjects at CUNY and Cornell Tech, creating new programs to help young women prepare for careers in tech, as well as Amazon-designed business and civic challenges for Build-a-thons and Summer Guild programs, and apprenticeship and internship experiences.	Women in Technology and Entrepreneurship in New York	Cornell Tech, CUNY
5	Customized Training at LaGuardia Community College  LaGuardia has experience in close employer collaboration and the delivery of customized, rapid, intensive training needed to meet workforce development needs at scale. For over 25 years LaGuardia's Center for Contract Training (CCT) has offered on-demand training customized to the needs of specific corporations, government agencies, and non-profit organizations, including executive training and hybrid and distance learning.	LaGuardia Center for Contract Training	CUNY

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6	General Assembly	General Assembly for	General Assembly
	General Assembly's Enterprise team helps the world's largest companies design custom training programs to work for each company's context, culture, and needs. General Assembly also works with employers to develop new products	Companies	
	to respond to marketplace gaps and develop a set of skills-based assessments for web development, digital marketing, and other disciplines. General Assembly		
	has completed the initial pilot with over 500 companies and is now working with a broader network of employers to leverage the assessments in hiring. It also		
	offers Talent Pipeline as a Service (TPaaS), where companies share their talent		
	acquisition goals, and General Assembly creates a custom pipeline that meets their needs.		
7	INFRONT-MVP AWS WEB Services Certifications	INFRONT- Minority Venture	INFRONT-MVP
	Add AWS WEB Services Certifications and cloud fundamentals courses to INFRONT-MVP training/bootcamp style portfolio targeting community programs	Partners (MVP)	
	to increase the diversity of Amazon's hiring pool. These courses would cover		
	designing applications and systems, developing cloud applications; and creating automatable and repeatable deployments of applications, networks, and systems.		
8	The New School	The New School Design and	The New School
	Amazon Employees can choose a pathway — Game Design or Creative Technology	Technology	
	— and solve design problems by creatively remixing software, hardware, art, and	Curriculum	
	design. In this program, code becomes the participant's second language and expressive means of connecting with others. Participants develop a sustainable		
	process for researching, experimenting, designing, prototyping, iterating, and		
	producing projects that keep pace with evolving technology. This course can be		
	customized for Amazon with service design, sustainability, and transportation and delivery.		

**PART 4: LIVABILITY** 

**Q7.** Please provide highway, airport, and related travel and logistics information for all proposed sites. Please also include transit and transportation options for commuting employees living in the region. For each proposed site in your region, identify all transit options, including bike lanes and pedestrian access to the site(s). Also, list the ranking of traffic congestion for your community and/or region during peak commuting times.

For all site-specific transit options, please see the sites portion of the NYC Section.

#### Air travel

#### Flights from New York Airports (July 2017)

	John F. Kennedy International Airport (JFK)	LaGuardia Airport (LGA)	Newark Liberty International Airport (EWR)	Total
Non-stop domestic cities served	64	74	95	
Non-stop international cities served	107	3	79	
Total cities served non-stop	171	77	174	
Daily domestic flights	331	461	391	1,183
Daily international flights	255	38	127	420
Total daily flights	586	499	518	1,603
Total domestic passengers (for past 12 months)	27.3 million	27.5 million	29.7 million	84.5 million
Total international passengers (for past 12 months)	32.3 million	1.9 million	12.8 million	47 million
Total passengers (past for 12 months)	59.6 million	29.4 million	42.5 million	131.5 million

#### Daily direct flights from NYC to relevant Amazon locations (Average daily number of flights to destination city in Q2 2017)

	John F. Kennedy International Airport (JFK)	LaGuardia Airport (LGA)	Newark Liberty International Airport (EWR)	Total
Seattle	3.8		2.7	6.5
SF Bay Area	12.1		10.5	22.6
Washington, DC	6.8	12.3	6.6	25.7
Austin	3.0		2.8	5.8
Boston	8.6	14.9	7.1	30.7
Chicago	4.9	23.5	10.5	38.9
London	11.2		4.7	15.9
Tel Aviv	1.5		1.4	2.9
Delhi	0.5		0.5	1
Beijing	0.9		0.8	1.7
Shanghai	1.0		0.5	1.5
Tokyo	2.0		0.5	2.5

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#### **Transportation**

Congestion Rankings for Major U.S. Cities

- 1. Los Angeles
- 2. Washington, D.C.
- San Francisco
- Houston
- New York
- Seattle
- **Boston**
- Chicago
- Atlanta
- 10. Honolulu

Street congestion is highly correlated with economic success. New York, though the fifth most congested region in the nation, is in good company with San Francisco (third), Houston (fourth), Seattle (sixth), and Boston (seventh). In short, in a thriving urban environment, congestion comes with the territory. New York City's superior transit options give it a leg up over other cities. Street congestion in NYC is acute during peak commuting times, but less than 10 percent of commuters in Manhattan use private vehicles and about 80 percent of commuters to the central business district use public transit. The density of New York City's business districts enables transit and walking commutes, creating journeys to work that bypass congested roads and are qualitatively better than those in many other US cities.

**Q8.** Please include information on your community with respect to daily living, recreational opportunities, diversity of housing options, availability of housing near potential sites for HQ2, and pricing, among other information. Please also include relevant crime data and cost of living data.

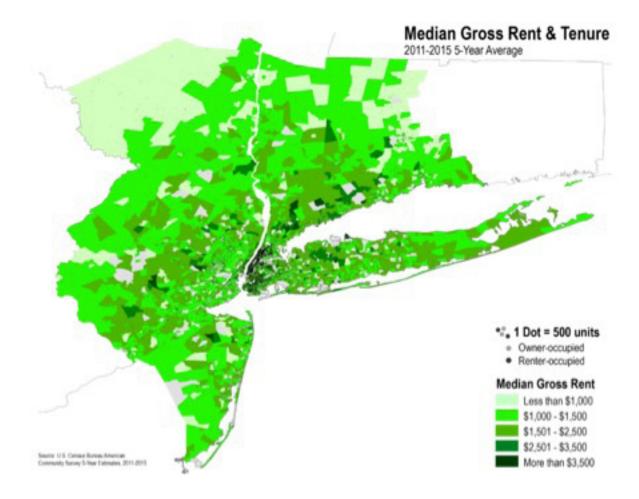
#### Cost of living and diversity of housing

Information on cost of living and affordability is included in sections containing narrative and site details.

The median monthly rent for the New York City metro area is lower than that of other major U.S. metro areas, including San Jose; San Francisco; Washington, D.C.; San Diego; and Los Angeles. By metro area, New York City's median monthly rent was \$1,290, just \$40 higher than Seattle's. As visualized in the map below, the NYC metro area offers housing options in every price range. Furthermore, the housing stock is the largest in the nation, with immense variety in construction, size, and neighborhood.

#### **New York City Metro Region Housing Stock**

Housing units	
Number of owner-occupied housing units	3,629,453
Number of renter-occupied housing units	3,498,424
Building type	
Share of rental units that single-family home	10.7%
Share of rental units that are in multi-family buildings	89.3%
Bedroom type	
Share of rental units that are studios or 1 bedrooms	43.8%
Share of rental units that are 2 bedroom units	35.4%
Share of rental units that are 3+ bedroom units	20.8%



A vast public transportation system and pedestrian-friendly environment eliminate the need for a car, saving New Yorkers on transportation costs. Residents who rely on public transportation benefit from an annual transportation cost below \$1,500, a savings of over \$10,000 compared with the median expenditure by Seattle households.

The cost of living in Brooklyn or Manhattan is similar to or even lower than Seattle, across three major categories:

Living cost	Manhattan, NY	Brooklyn, NY	Newark-Elizabeth, NJ	Bergen-Passaic, NJ	Stamford, CT
Groceries	5.24% more than Seattle	Equal to Seattle	16.04% less than Seattle	16.36% less than Seattle	3.10% less than Seattle
Utilities	0.33% more than	0.57% less than	6.14% less than	7.36% less than	Equal to
	Seattle	Seattle	Seattle	Seattle	Seattle
Health	8.50% less than	11.99% less than	20.73% less than	19.14% less than	9.13% less
	Seattle	Seattle	Seattle	Seattle	than Seattle

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#### **Safety**

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New York City is safer than it's ever been. Among 34 cities with a population over 500,000, New York City has less violent crime than 19 of them, and less property crime than 33 of them. In fact, Seattle has more violent crime than New York, and a property crime rate that is almost four times higher. Washington, D.C., and Philadelphia have almost double the violent crime rate of New York, and three times and two times the property crime rate respectively.

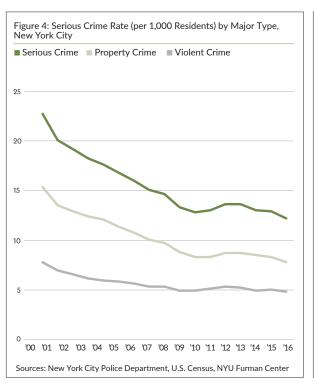
#### Property Crime and Violent Crime Rates for Cities greater than 500,000 (2014)

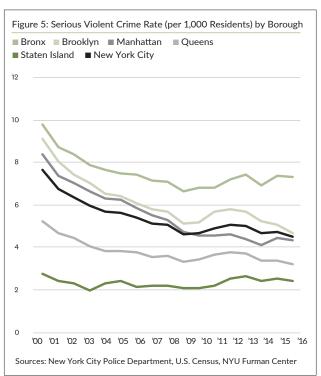
(Ranked by Highest to Lowest Violent Crime - per 100,000 population)

Detroit  Memphis  Milwaukee  Baltimore  Indianapolis  Washington Metropolitan  Nashville-Davidson Metro  Philadelphia  Houston  Albuquerque	MI TN WI MD IN DC TN PA TX	1,990 1,744 1,485 1,339 1,255 1,185 1,125 1,021	4,819 5,995 4,588 4,718 4,823 5,013	1 2 3 4 5	9 2 12 10 8
Milwaukee Baltimore Indianapolis Washington Metropolitan Nashville-Davidson Metro Philadelphia Houston Albuquerque	WI MD IN DC TN PA TX	1,485 1,339 1,255 1,185 1,125	4,588 4,718 4,823 5,013	3 4 5	12 10 8
Baltimore Indianapolis Washington Metropolitan Nashville-Davidson Metro Philadelphia Houston Albuquerque	MD IN DC TN PA TX	1,339 1,255 1,185 1,125	4,718 4,823 5,013	4 5	10 8
Indianapolis Washington Metropolitan Nashville-Davidson Metro Philadelphia Houston Albuquerque	IN DC TN PA TX	1,255 1,185 1,125	4,823 5,013	5	8
Washington Metropolitan Nashville-Davidson Metro Philadelphia Houston Albuquerque	DC TN PA TX	1,185 1,125	5,013	+	
Nashville-Davidson Metro Philadelphia Houston Albuquerque	TN PA TX	1,125		6	
Philadelphia Houston Albuquerque	PA TX		2 4 4 7	1	7
Houston Albuquerque	TX	1,021	3,647	7	21
Albuquerque		1 2	3,388	8	24
		991	4,694	9	11
1	NM	883	5,446	10	3
Las Vegas Metropolitan	NV	841	2,923	11	27
San Francisco Police Dept.	CA	795	5,303	12	5
Oklahoma City	ОК	774	4,411	13	13
Boston	MA	726	2,639	14	28
Jacksonville	FL	684	3,941	15	19
Dallas	TX	665	3,589	16	22
Tucson	AZ	653		17	#N/A
Seattle	WA	604	6,146	18	1
Denver	со	602	3,367	19	25
New York City Police Dept.	NY	597	1,602	20	33
Louisville Metro	KY	592	4,196	21	15
Charlotte-Mecklenburg	NC	590	3,567	22	23
Phoenix	AZ	572	3,724	23	20
Columbus	ОН	559	4,278	24	14
City of Fort Worth	TX	558	4,001	25	18
San Antonio	TX	539	5,418	26	4
Los Angeles	CA	491	2,128	27	31
Portland	OR	473	5,235	28	6
Fresno	CA	464	4,112	29	17
Austin	TX	396	4,142	30	16
El Paso	TX	393	2,142	31	30
San Diego	CA	381	1,959	32	32
San Jose	CA	321	2,434	33	29
Chicago	IL	NA	3,133	34	26

As part of a groundbreaking plan, "OneNYC: The Plan for a Strong and Just City", the City has set a goal to become the safest large American city. New initiatives will:

- 1. Reduce crime by using advanced technology and integrated data systems
- 2. Reduce crime through changes to criminal justice facilities that will promote concepts of fairness and confidence in the law
- 3. Enable crime prevention through environmental design
- 4. Reduce incarceration by examining risk, needs, programming, and system flow





Since the plan's implementation, we have continued to see notable decreases in crime and expect this trend to continue. For example, the number of major felony crimes fell by 5 percent from 2015 to 2016.

**Q9.** Please use your response as an opportunity to present any additional items and intangible considerations with respect to your state/province and community that Amazon should include in its analysis.

#### Sustainability and resiliency

New York City is continuously investing in the sustainability and resiliency of the city to prepare for the long term. In April 2015, we made a commitment to become the most sustainable big city in the world and a global leader in the fight against climate change. OneNYC is a strategic plan for inclusive and sustainable growth and the first global resilience strategy released by any city. This plan outlines a number of goals and a roadmap for achieving them:

- Goal 1: New York City's greenhouse gas emissions will be 80 percent lower by 2050 than in 2005.
- Goal 2: New York City will send zero waste to landfills by 2030.
- Goal 3: New York City will have the best air quality among all large U.S. cities by 2030.
- **Goal 4:** New York City will clean up contaminated land to address disproportionately high exposures in low-income communities, and convert land to safe and beneficial use.
- Goal 5: New York City will mitigate neighborhood flooding and offer high-quality water services.
- Goal 6: All New Yorkers will benefit from useful, accessible, and beautiful open spaces.





Over the past few years, the City has made impressive progress towards achieving these goals. We quadrupled our solar photovoltaic installations from 2014 to 2015 and we became the first city to mandate that existing buildings meet standards or accelerate efficiency upgrades. We've added nearly 1,000 electric vehicles to our municipal fleet, provided more than 1 million New Yorkers with organics collection, and diverted 20 million pounds of waste through re-fashion and e-cycle programs. We also recently hosted the Formula E New York City ePrix, the world's first fully electric single-seater racing series. A platform to showcase the latest innovations in electric vehicle technology and alternative energy solutions, the event reinforced our commitment to sustainable technology and green initiatives. By the end of 2015, we had reduced greenhouse gas emissions by 15 percent from 2005 levels.

### PART 5: END NOTES

#### **NEW YORK: THE DAY 1 CITY**

Information about the Cornell Technion campus can be found on the NYCEDC website https://www.nycedc.com/project/applied-sciences-nyc

Research from the Brookings Institution has shown that high-quality early childhood education significantly increases academic outcomes and earnings

(https://www.brookings.edu/wp-content/uploads/2016/06/09\_early\_programs\_isaacs.pdf

The impact and cost of our Universal Pre-K programs is reported by the Mayor's Office <a href="http://www1.nyc.gov/office-of-the-mayor/news/376-15/mayor-de-blasio-record-breaking-70-000-families-will-be-offered-pre-k-seats-this-week#/0">http://www1.nyc.gov/office-of-the-mayor/news/376-15/mayor-de-blasio-record-breaking-70-000-families-will-be-offered-pre-k-seats-this-week#/0</a>

Ridership numbers and additional information about our NYC Ferry system can be found on the NYCEDC website <a href="https://www.nycedc.com/project/nycferry">https://www.nycedc.com/project/nycferry</a>

Data on the number of Fortune 500 companies in New York is routinely reported by Fortune <a href="http://fortune.com/fortune500/list">http://fortune.com/fortune500/list</a>

Population statistics are reported by the New York City Department of City Planning's Population Facts https://www1.nyc.gov/site/planning/data-maps/nyc-population/population-facts.page

The number of foreign born New Yorkers and countries of origin are based on the 2015 American Community Survey and reported regularly by the New York City Comptroller

https://comptroller.nyc.gov/reports/our-immigrant-population-helps-power-nyc-economy/#Self\_Employment-Among\_US\_and\_Foreign\_Born\_New\_York\_City\_Residents

NYC & Company publishes statistics on New York City's cultural institutions, hospitality industry and convention space <a href="http://www.nycandcompany.org">http://www.nycandcompany.org</a>

#### The Home of the best and brightest minds

The number of foreign born New Yorkers and countries of origin is based on the 2015 American Community Survey and reported regularly by the New York City Comptroller

 $\frac{\text{https://comptroller.nyc.gov/reports/our-immigrant-population-helps-power-nyc-economy/\#Self\_Employment-Among\_US\_and\_Foreign\_Born\_New\_York\_City\_Residents}$ 

Degree attainment within the city and the region is based on the 2016 American Community Survey, 1-year estimate

Information on the number of people relocating to New York with Bachelor's degrees is based on the 2016 American Community Survey, 1-year estimate

The number of 23-29 year olds with a bachelor's or higher residing in the city but born outside of New York State is reported by the NYC Comptrollers Report on Millennials from 2016

 $\underline{https://comptroller.nyc.gov/wp-content/uploads/documents/NYC\_Millennials\_In\_Recession\_and\_Recovery.PDF$ 

Metropolitan area employment by occupation is from the Bureau of Labor Statistics, Occupational Employment Statistics survey, 2016. The data reflected is MSA level data; Software development engineers includes codes 15-1111, 15-1121, 15-1131, 15-1132, 15-1133, 15-1134, 15-1141, 15-1142, 15-1143, 15-1151, 15-1152, 15-1199; Other engineers includes the codes 17-2011, 17-2031, 17-2041, 17-2051, 17-2061, 17-2071, 17-2072, 17-2081, 17-2111, 17-2112, 17-2131, 17-2141, 17-2161, 17-2171, 17-2199





-New York City

#### Pre-K and K-12: New York City is nurturing the engineers of the future

Data on high school graduation rates is provided by the New York City Department of Education and reflects the latest 2012-

http://schools.nyc.gov/NR/rdonlyres/04A151BF-F9E4-4960-8881-E1B07AA57DF8/208343/2016GraduationRatesW eb21017.pdf

The impact and cost of our Universal Pre-K programs is reported by the Mayor's Office

http://www1.nyc.gov/office-of-the-mayor/news/376-15/mayor-de-blasio-record-breaking-70-000-families-will-be-offered-prek-seats-this-week#/0

CTE program enrollment is reported by CTE

http://www.cte.nyc/site/content/faq-students-and-parents

Computer Science for All's enrollment, budget, and progress are reported by CSNYC https://csnyc.org/our-work/cs4all

#### Higher education: New York City is making historic investments in Applied Science education

The total number of colleges and universities in New York was reported by HR&A in October 2017, using the latest available EMSI data

Metropolitan student population is derived from 2014 EMSI enrollment data published by the Martin Prosperity Institute

Enrollment and other information about Cornell Technion is provided by the University

Information about the CUNY CS doubling initiative is provided by the New York City Tech Talent Pipeline http://www.techtalentpipeline.nyc/cs-doubling

Workforce Development: We're building the diverse hire-ready talent companies need

The number of bootcamp programs and their enrollment is provided by Course Report

Information about the Tech Talent Pipeline is provided by the Tech Talent Pipeline http://www.techtalentpipeline.nyc/

Our top colleges and universities are committed to working with you to create a direct pipeline of future Amazonians

Creative options for talent partnerships were provided by the universities and nonprofits mentioned through a survey done in October specifically for the purpose of this RFP. More information can be found in the appendix.

#### The world's greatest city to live In

CBRE reports rankings of America's tech ecosystems annually https://www.cbre.us/research-and-reports/Scoring-Tech-Talent-2017

The FBI regularly publishes data on trends in criminal activity https://www.fbi.gov/

A list of New York City's Broadway theaters can be found at the New York Show Tickets website http://www.nytix.com/Links/Broadway/broadwaytheatres.html

Information and statistics about music events in NYC are reported by the Mayor's Office of Media and Entertainment https://www1.nyc.gov/assets/mome/pdf/MOME Music Report 2017 DIGITAL.pdf

Tourism statistics are reported by the Mayor's Office of NYC

http://www1.nyc.gov/office-of-the-mayor/news/963-16/mayor-de-blasio-total-nyc-visitors-surpasses-60-million-first-time

The calendar of conventions in NYC can be found at the NYC & Company website http://www.nycandcompany.org/

An overview of the Javits Center expansion plan is available on the Javits Center website http://www.javitscenter.com/about/expansion/overview/

Information about NYC's parks can be found at the NYC Parks website https://www.nycgovparks.org/about

Commuting statistics are based on American Community Survey and U.S. Census Bureau Data and published by The Transport Politic https://www.thetransportpolitic.com/databook/travel-mode-shares-in-the-u-s/

Borough-specific commuting data can be found on the NYCEDC website https://www.nycedc.com/blog-entry/new-york-commute

Transit statics for NYC and the New York Metropolitan Area can be found on the MTA's website http://web.mta.info/mta/network.htm

Historical information about NYC's subway network can be found in Clifton Hood's book 722 Miles: The Building of the Subways and How They Transformed New York

Statics on bus ridership are published by the American Public Transportation Association http://www.apta.com/resources/statistics/Documents/Ridership/2016-q4-ridership-APTA.pdf

The US Department of Transportation regularly publishes statistics on regional highway networks https://www.dot.ny.gov/regional-offices/region11/general-info

Empire State Development reports statistics on NYC's regional airports https://esd.ny.gov/

Daily flight statistics are reported by the Port Authority https://www.panynj.gov/

NYC & Company publishes information about New York City's airports and transit network http://www.nycandcompany.org/

Information about NYC's bike lanes and services is available on the NYC Department of Transportation website http://www.nyc.gov/html/dot/html/bicyclists/bicyclists.shtml

The Tri-State Transportation Campaign tracks the use of cars in NYC http://blog.tstc.org/2017/04/21/car-free-new-york-city

Comparative information about NYC and other American rental markets is published by the NYU Furman Center annually http://furmancenter.org/nrhl and http://furmancenter.org/files/NYUFurmanCenter\_2017\_National\_Rental\_Housing\_ Landscape 04OCT2017.pdf

The Housing and Transportation Affordability Index provides neighborhood-level information about the cost of housing and transportation

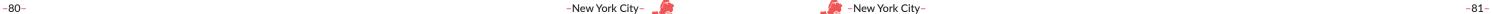
https://htaindex.cnt.org/

The New York City Department of Buildings tracks annual permits for residential units http://www1.nyc.gov/site/buildings/index.page

#### **Driving innovation across all industries**

Data on New York City employment across industries is from the New York State Department of Labor, US Bureau of Labor Statistics, August 2017.

We are reinventing our economy to become a global capital for technology





Workforce data on the number of software engineers is from the Bureau of Labor Statistics, Occupational Employment Statistics Survey, 2016; MSA level data.

The number of degrees awarded in engineering fields is from a survey conducted by NYCEDC in October 2017 for this purpose; see Appendix for detail.

Data on the wages for tech employees comes from CBRE: Scoring Tech Talent in North America 2017. https://www.cbre.us/research-and-reports/Scoring-Tech-Talent-2017

Information on the expansion of tech companies in NYC over the last three years and Google's growth comes from data collected by HR&A Advisors.

Start-ups information on the number of startups and incubators comes from Digital.nyc, NYC's hub for tech and startups. http://www.digital.nyc/

Data on venture capital funding comes from PitchBook, Inc; New York Metropolitan Area, October 5, 2017. Volumes of funding by industry comes from 2016 data collected by Built in NYC, an online community for NYC startups.

Information on the largest workforce of design and creative industry professionals in the country comes from the Center for an Urban Future's report, Creative New York from June 2015.

https://nycfuture.org/research/creative-new-york-2015

The chart on New York City Metropolitan Area total venture capital invested comes from PitchBook, Inc; New York Metropolitan Area, October 5, 2017.

We're building on our longstanding leadership in media and the creative sectors to lead the next wave of innovation

The size of the creative industry workforce comes from the Center for an Urban Future's report, Creative New York from June 2015. https://nycfuture.org/research/creative-new-york-2015

Information on music record labels, the number of documentaries produced by NYC companies receiving awards comes from a report commissioned by the Mayor's Office of Music and Entertainment and issued by BCG, "The Media and Entertainment Industry in NYC: Trends and Recommendations for the Future" published in October 2015.

Information on fashion headquarters comes from the Joint Economic Committee of the U.S. Senate in a report titled, "The New Economy of Fashion" published in February 2016.

Data on Kickstarter money raised and the number of Etsy sellers relative to cab drivers comes from the Center for an Urban Future's Creative New York report.

https://nycfuture.org/research/creative-new-york-2015

We're investing in the next big breakthroughs in healthcare and life sciences

The size of the healthcare industry comes from New York State Department of Labor, US Bureau of Labor Statistics, August 2017.

The volume of NIH funding comes from the National Institutes of Health (NIH) report published by the Boston Planning & Development Agency Research Division, August 2016.

#### Workforce and labor

#### **Labor Pool and Wages**

The employee counts and median wages for Amazon-requested occupations are from the Bureau of Labor Statistics, Occupational Employment Statistics survey, 2016; MSA level data; Software development engineers includes codes 15-1111, 15-1121, 15-1131, 15-1132, 15-1133, 15-1134, 15-1141, 15-1142, 15-1143, 15-1151, 15-1152, 15-1199.

The comparison of employee counts for five Amazon-requested occupations across metropolitan areas comes from the Bureau of Labor Statistics, Occupational Employment Statistics survey, 2016; MSA level data; Software development engineers includes codes 15-1111, 15-1121, 15-1131, 15-1132, 15-1133, 15-1134, 15-1141, 15-1142, 15-1143, 15-1151, 15-1152, 15-1199.

#### **Ability to Attract Talent Regionally**

The comparison of college student counts by metropolitan areas and the metro retention rate for college graduates from 4 year institutions comes from CityLab: The Reality of America's College Towns, September 2016.

The number of people with bachelor's degrees or higher that relocated to New York City and the count of degrees conferred for five Amazon-requested in the New York metropolitan area in 2006 comes from the American Community Survey, 1 year estimates, 2016.

The number of residents with bachelors degrees or higher in the NY-NJ-PA region comes from HR&A's Tech Ecosystem Study Update, Oct 2017.

#### Opportunities to hire software development engineers

Employment data on New York City's tech talent and growth rates comes from CBRE Research: 2017 Scoring Tech Talent.

The number of graduates from New York City's higher education institutions comes from IPEDS Completions Survey from the National Center for Education Statistics.

#### **Existing Programs with Higher Education Institutions**

The number of coding bootcamp schools come from the Course Report 2017 Coding Bootcamp Market Size Study.

#### Livability

Flight information and schedules for New York airports was provided by the Port Authority of New York & New Jersey, which operates all three airports.

http://www.panynj.gov/

US News & World Report ranked New York as fifth on the list of most congested cities, behind LA, Washington, DC, SF, and

https://www.usnews.com/news/slideshows/worst-traffic-cities-in-america-ranked

Data about transit use by commuters in New York City came from the 2006-2010 American Community Survey and from the MTA website.

http://web.mta.info/mta/network.htm#statsnyct

Median monthly rent, housing stock, and other housing data for major American cities comes from Furman Center's 2017 report, National Rental Housing Landscape

http://furmancenter.org/files/NYUFurmanCenter\_2017\_National\_Rental\_Housing\_Landscape\_04OCT2017.pdf

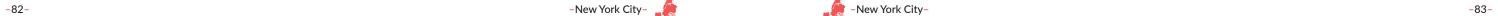
Seattle's household spend data comes from the H&T Affordability Index ( https://htaindex.cnt.org

Non-housing and non-transportation living costs come from the Council for Community and Economic Research's (C2ER) report in Q2 2017.

Crime statistics come from a Politico article reporting on Mayor de Blasio's comments http://www.politico.com/states/new-york/city-hall/story/2017/01/de-blasio-new-york-city-is-a-model-for-reducingcrime-108465 and an FBI report https://ucr.fbi.gov/

Information about our photovoltaic installations comes from NYC & Company's Research Division.

Updated progress on our greenhouse emissions goals comes from the 2017 OneNYC Progress Report http://onenyc.cityofnewyork.us/wp-content/uploads/2017/05/OneNYC Progress Report 2017.pdf





#### PROPOSED NEIGHBORHOODS

Projections relating to the availability of new office space in New York City between 2017 and 2019 are reported by New York **Building Congress.** 

#### **Long Island City**

Long Island City Partnership published information regarding hotel construction in Long Island City, "LIC Quickfacts - October 2017."

https://longislandcityqueens.com/media/filer\_public/de/8c/de8c28ea-dac2-41ac-9a59-2c48443e5a92/lic\_quick\_facts\_ october\_2017.pdf

Information regarding the scale of Grand Central Terminal comes from a report by Railway Technology, "Grand Central Terminal, New York City, United States of America."

http://www.railway-technology.com/projects/grandcentralterminal/

Long Island City Partnership published information regarding the residential population of Long Island City. https://longislandcityqueens.com/media/filer\_public/de/8c/de8c28ea-dac2-41ac-9a59-2c48443e5a92/lic\_quick\_facts october 2017.pdf

Long Island City Partnership publishes information regarding schools and educational options in Long Island City. https://longislandcityqueens.com/

#### **Lower Manhattan**

Downtown Alliance publishes information regarding residents and employees in Lower Manhattan. http://www.downtownny.com/sites/default/files/research/Q2\_17\_LM\_Fact\_Sheet\_Update.pdf

Downtown Alliance publishes information regarding the square footage of commercial space in Lower Manhattan. http://www.downtownny.com/sites/default/files/research/Q2 17 LM Fact Sheet Update.pdf

#### Midtown West

Information regarding the population of New York City comes from the US Census Bureau, 2015.

Information regarding the number of people who visit the Broadway Theater District comes from the Broadway League, 2017.

Information regarding Hudson Park & Boulevard, and its completed first phase, comes from Metropolitan Transportation Authority, 2017.

#### **Brooklyn Tech Triangle**

Information regarding the number of hotels and hotel rooms in Brooklyn is reported by Downtown Brooklyn Partnership, 2017.

Data regarding the number of annual visitors and events for Brooklyn Bridge Park comes from Brooklyn Bridge Park.

Data regarding the number of miles of bike lanes in Brooklyn comes from NYC Bike Maps. www.nvcbikemaps.com

Information on the projected increase in residential development comes from Downtown Brooklyn Partnership.

Information regarding the number of world-class institutions of higher education that provide instruction to 66,000 undergraduate and graduate students comes from Downtown Brooklyn Partnership.

#### **Site Details**

Information regarding the Uniform Land Use Review Procedure comes from New York City Department of City Planning. https://www1.nyc.gov/site/planning/applicants/applicant-portal/step5-ulurp-process.page

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#### PART 6: LETTERS OF ENDORSEMENT

#### INDUSTRY AND ACADEMIC PARTNERS

**Jeff Bezos Chairman & CEO** Amazon 410 Terry Avenue North Seattle, WA, 98109-5210

Dear Mr. Bezos,

You may think of New York City as the home of Wall Street, Broadway, and the Metropolitan Museum of Art. You may think of New York as the most diverse city in the country, where 45 percent of the labor force is foreign-born, and where over 200 languages are spoken. But less well-known is the fact that New York is also the academic capital of the United States. Today, there are over half a million undergraduate students enrolled at more than 100 colleges and universities throughout the five boroughs. In your search for a place for your second headquarters, we hope that Amazon will recognize the tremendous talent of our students and faculty, the numerous world-changing inventions and startups emerging from NYC research labs, and the strong academic pipeline we can provide to your company. Our robust consortium of colleges and universities is part of what makes New York the clear choice for Amazon's second headquarters.

New York City is home to the most educated workforce in the country. Over 2.3 million residents have a bachelor's degree or higher; this is more than the number of people with a bachelor's degree in San Francisco, Los Angeles, Seattle, Washington D.C., and Atlanta combined. In 2015, NYC universities bestowed approximately 100,000 undergraduate, master's, and doctoral degrees. Our institutions are committed to research and development, and, like Amazon, are on the cutting edge of innovation. In 2016, New York City's major academic institutions invested \$2.9 billion in basic and translational R&D, primarily from NIH, NSF, and other Federal agency grants, as well as a significant volume from industry collaborations.

Our schools are paving the way in the key fields that will continue to drive innovation for Amazon, including data science, artificial intelligence, machine vision, semantic search, robotics, mobile data, autonomous vehicles, augmented and virtual reality, cybersecurity, logistics, healthcare IT, and much more. In the last year alone, the institutions co-signing this support letter collectively saw over 1,000 new inventions emerge from university research labs, leading to over 300 new licenses and options to industry, and 46 new research-backed startups. The total startup ecosystem emerging from the universities' faculty-, student-, and alumni-led startups is significant and growing.

Our institutions have outstanding undergraduate and graduate engineering and technology programs, as well as many of the world's leading graduate programs in business, law, journalism, bioinformatics, design and other fields of interest to Amazon. We also have affiliated hospitals serving one of the world's most dense and diverse patient populations, relevant to Amazon's explorations in human health.

While each of our institutions is strong individually, their impact is amplified by frequent and successful collaborative initiatives. For example, Columbia University, NYU and CUNY jointly run the National Science Foundation (NSF) Innovation Corps node for the region, providing education, mentorship, and ignition funding to the next wave of NSF-initiated startups. Other efforts to accelerate tech innovation include cross-institutional programs such as NYC Media Lab and PowerBridgeNY, which work to turn research into business in media and clean tech, respectively. Combined, those programs have received over 200 applications, spawned 48 projects and led to the launch of 27 startups in the past five years. Potentially of interest to Amazon would be NYC Media Lab startup graduates Vidrovr (computer vision/Al-driven video content management systems), Geopipe (rapid 3D modeling of city environments for urban development), Braiq (human signal based Al/deep learning for self-driving cars), and Gleam (text-based patient reminder service improving access to mental health). From these two collaborations, and other inter-institutional efforts, we have a track record of streamlining the process by which industry and venture capital interacts with university-based innovations, including being able to facilitate industry-sponsored research, intellectual property licensing, and shared data sets. We are also uniting our entrepreneur-in-residence networks to further cultivate the startup community in NYC, enabling venture-fundable serial entrepreneurs from one institution to partner with the most promising startups across the city. In fact, our shared best practices on tech acceleration led to a recent joint article in the peer-reviewed Journal of the National Academy of Inventors. We've now also launched a combined Accelerator Network to further streamline and scale these accelerators, moving technologies to market faster and in new areas.

The City and our educational institutions have a number of existing programs dedicated to teaching high-demand tech skills. The NYC Tech Talent Pipeline, for example, works with 16 public and private local colleges and 200 top tech firms and is aiming to deliver on the Mayor's goal of doubling the number of New Yorkers earning tech bachelor's degrees by 2022. To prime this pipeline, the public high schools and community colleges have developed innovative programs, like College Now, CUNY Start, the Early College Initiative, and the Accelerated Study in Associate Programs (ASAP), to guide and support students in exploring career options, persisting in their academic programs and eventually obtaining jobs in high-tech organizations.

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We are passionate about and actively support these cross-institutional collaborations, and look forward to developing specific programs tailored to Amazon. For instance, we might build on our successes with the NYC Media Lab and PowerBridgeNY to collaboratively launch NYC Labs for robotics, machine learning and AI, healthtech, data science, or cloud computing, in addition to continuing to grow our media, AR / VR, energy, and cyber presence. We could establish Amazon Faculty Exchanges for joint appointments or temporary researcher exchanges; launch Hacking for Amazon competitions to allow students to work on class projects built around Amazon's technical or business challenges; or develop Amazon-specific education and training programs.

In all of our efforts among ourselves and between industry and academia, we have found the New York City Economic Development Corporation (NYCEDC) to be to be a valued and helpful partner. NYCEDC's ability to execute innovative collaborations and transformational projects is second to none. NYC's academic institutions have worked with the City and NYCEDC to expand campuses physically and programmatically and enhance our ability to contribute to the city, region, and larger society. Most recently, NYC celebrated the opening of Cornell Tech, a \$2 billion, 22-million-square-foot applied science and engineering campus on Roosevelt Island that will soon be home to more than 2,000 graduate students and faculty who will lead innovative research, companies, and social ventures. NYCEDC's Applied Sciences Initiative lead to the creation of Columbia's Data Science Institute in Manhattan, and NYU's Center for Urban Science & Progress focused on urban informatics in Brooklyn.

NYCEDC is truly an innovator in ways to connect our leading educational institutions with the city's 9,000 startups and existing industry leaders. Just this year, NYCEDC announced a 258,000 SF tech hub in Union Square that will serve as a focal point for tech training and activity in the core of our "Silicon Alley," co-locating growth-stage tech companies with training organizations like the New York City Foundation for Computer Science Education, General Assembly, Per Scholas, Code to Work, and Coalition for Queens. In our experience, NYCEDC is willing not only to initiate new programs but will also remain a dedicated partner through good times and bad, working through issues that arise to the benefit of all parties.

We enthusiastically support New York City's bid for Amazon's headquarters. The combination of one of the most impressive higher education platforms in the nation, and the city's strong track record of connecting academia to industry, means that Amazon in New York would have access to unparalleled resources and talent. We hope to have the opportunity to collaborate to our mutual benefit.

Sincerely,

James Milliken, Chancellor, City University of New York

**CU** 

COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK

Adres A Hoke

Matta E. Polled

Jam & nime

Martha E. Pollack, President, Cornell University



Andrew Hamilton, President, New York University

Lee C. Bollinger, President, Columbia University



Nich alland

Nicholas Allard, President, Brooklyn Law School



Jamshed Bharucha, President, Cooper Union



Dr. Joyce F. Brown, President, Fashion Institute of Technology



Thous X. Denne

Love A Join

Thomas A. Dunne, Vice President, Fordham University



Hank Foliey

Hank Foley, President, New York Institute of Technology



Marvin Krislov, President, Pace University



Marin Kuslar

Timothy P. O'Connor, Executive Vice President, Rockefeller University



Kirk Pillow, Interim President, Pratt Institute

**Pratt** 

AN. Who

David Van Zandt, President, The New School



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Mr. Jeff Bezos Founder and CEO Amazon.com 410 Terry Avenue North Seattle, WA 98109-5210

October 11, 2017

Dear Jeff:

As entrepreneurs and investors who represent New York City's robust and growing technology industry, we urge you to build HQ2 in NYC. We say this from a place of experience, having chosen ourselves to build and grow companies here because we believe New York is special, with a diverse and supportive ecosystem, and a uniquely dynamic culture.

New York City is a natural complement to Amazon's presence in Seattle—from South Lake Union to New York Harbor, there exists a strong, shared history of ingenuity, grit, and acceptance of new people and ideas. Both cities welcome adventurers, inventors, and an insatiable energy to create. In addition, New York City offers:

- A global center for industries such as finance, media, fashion, and retail, boasting the highest concentration of Fortune 500 companies, thus enabling the cross-pollination of ideas, innovators, and talent.
- A front row seat to innovation, with more than 6,000 startups based here.
- A bustling tech industry that is now the city's fastest-growing sector, with more than 7,000 tech firms employing close to 300,000 workers.
- 24 million square feet of new office space coming to market during the next five years.
- A significant commitment to teach computer science to all 1.1 million students in its school system by 2025.
- A diverse workforce that speaks more than 200 languages across five boroughs.
- Proximity and convenience to international and emerging markets.
- Robust public transportation systems that are being expanded, revitalized, and upgraded throughout the city and state, including NYC Subway; NYC Ferry; Grand Central; Penn Station; JFK, LaGuardia, and Newark Airports; Citi Bike; and the proposed Brooklyn-Queens Connector (BQX).
- Access to 1,200 arts and cultural institutions—more than any other city in the country.

Other factors set our city apart. First and foremost is its proven ability to accomplish audacious projects. In the past month, as you know, Cornell Tech launched its new 2 million square foot campus on Roosevelt Island, which took less than seven years to execute from idea to three free-standing buildings. NYC has also brilliantly revitalized former industrial spaces into homes for innovative tech, including Manhattan's Hudson Yards and the Brooklyn Navy Yard.



Moreover, there's the construction of the High Line and the restoration of Governor's Island—a park paradise that is only minutes from Manhattan. Projects like these require true public-private partnerships, and the New York tech community stands ready to do our part.

NYC is also well-positioned to attract the future of global talent. Generation Z, a larger workforce than both Baby Boomers and Millennials, cares far more about convenience, culture, and experience than previous generations. New York also continues to attract hundreds of thousands of new international residents each year that are foundational to the tech community at large.

Many of us chose to be here for access to the arts and cultural institutions—not to mention the experience of walking the city's sidewalks, which provide a constant source of creative inspiration, customer insight, and serendipity that only a city of New York's scale can provide.

But more than anything, we are all here because we love New York. This is a shared sentiment across our families, friends, colleagues, and the teams we've built. It's the ultimate way to attract talent and to inspire the kind of creativity and dialogue that allows companies to thrive.

Amazon already has a significant and growing NYC presence, so it will be no surprise when we tell you that, simply put, there is nowhere like New York.

#### Sincerely,

Tim Armstrong	Scott Birnbaum	Neil Capel
CEO	Founder	Founder and Chairman
Oath	Red Sea Ventures	Sailthru
Arie Barendrecht	Aaron N. Block	Alexandra Cavoulacos
CEO	Co-Founder and Managing	Founder and COO
WiredScore	Director	The Muse
	MetaProp NYC	
Ayah Bdeir		Reza Chowdhury
Founder and CEO	Neil Blumenthal	Founder and CEO
littleBits	Co-Founder and Co-CEO	AlleyWatch
	Warby Parker	
Brian Berger		Daniel T Ciporin
Founder and CEO	John Borthwick	General Partner
Mack Weldon	CEO	Canaan Partners
	betaworks	
Milena Berry		Carter Cleveland
Co-Founder and CEO		Founder and CEO
PowerToFly		Artsy



Hilary Gosher

**Managing Director** 

**Insight Venture Partners** 

Sebastian Cwilich Erik K. Grimmelmann Mark Josephson Co-Founder, President. President CEO and COO NY Tech Alliance Bitly Artsy Ro Gupta Nancy Lublin Brian Distelburger Co-Founder and CEO Founder and CEO Co-Founder **CARMERA** Crisis Text Line Yext Beth Haggerty Susan Lyne Nisha Dua Co-Founder and CEO **Managing Partner BBG Ventures** Partner and Founder Parity Partners BBG Ventures, #BUILTBYGIRLS **David Hammer** Steve Martocci CEO CEO and Co-Founder Mike Dudas **Emissary** Splice CRO and Co-Founder **Button** Matt Harrigan Renata McGriff Co-Founder and Managing Founder and CEO Roger Ehrenberg Director **CareMODERN Partners** Managing Partner **Grand Central Tech** Inc. IA Ventures Jay Hass Kathryn Minshew Adam Enbar Partner Founder and CEO CEO **RRE Ventures** The Muse Flatiron School Cat Hernandez Charlie O'Donnell Chris Fenster Partner Partner Founder and CEO Primary Venture Partners Brooklyn Bridge Ventures **Propeller Industries** David Hirsch Brian O'Kelley Beth Ferreira Managing Partner CEO and Co-Founder Managing Partner Compound VC AppNexus **WME Ventures** Brian Hirsch Serkan Piantino Managing Partner Dave Gilboa CEO Co-Founder and Co-CEO Tribeca Venture Partners Spell Warby Parker Jalak Jobanputra Nathan Richardson

Managing Partner

Future\Perfect Ventures

CEO

Tradelt



David Rosenblatt CEO 1stdibs

Kevin Ryan Chairman and CEO

Alleycorp

Julie Samuels
Executive Director
Tech:NYC

John Saroff Chief Executive Officer Chartbeat

Amol Sarva CEO Knotel Reshma Saujani Founder and CEO Girls Who Code

Mario Schlosser CEO and Co-Founder Oscar Insurance

Brian Shoicket COO

Uncubed

Mike Steib Chief Executive Officer XO Group

Paul Strachman Venture Partner Red Sea Ventures Ragy Thomas CEO Sprinklr

Pedro Torres-Mackie Founder and Managing Director

Quotidian Ventures

Matt Turck
Managing Director
FirstMark Capital

Liz Wessel
Co-Founder and CEO

WayUp

Fred Wilson Chairman and Partner Tech:NYC, USV

Katharine Zaleski
Co-Founder and President
PowerToFly

 **Jeff Bezos** Chairman & CEO **Amazon** 410 Terry Avenue North Seattle, WA, 98109-5210

October 9, 2017

Dear Mr. Bezos,

As the leaders of technology education nonprofits and innovation programs that represent our talent and entrepreneur development infrastructure, we urge you to build HQ2 in New York City. NYC is a major international hub for innovation that incubates new talent and businesses at scale.

One of our greatest strengths is our robust educational system. NYC is home to more than 100 institutions of higher learning. the largest K-12 public school system in the country, and an extensive network of youth-serving educational nonprofit organizations. Together we are developing the next generation of entrepreneurs, inventors, and leaders. NYC is the perfect place for Amazon to build a resilient and relevant workforce that will identify opportunities in the new economy.

New York City is a leader in the national K-12 computer science education movement. In 2015, Mayor de Blasio announced a 10-year, \$81 million initiative called Computer Science for All (CS4All) that will enable all 1.1 million students in our school system to study CS across grades K-12. CS4All is by far the most ambitious effort in the country to educate students in CS. In just a few years, our city partners have trained nearly 1,000 teachers, and tens of thousands of students are currently participating in CS learning opportunities both in and out of school. Meaningful CS education for all students is critical to both building a diverse workforce to support our innovation-based economy and developing computational literacy for all students.

Investment in technology training continues well beyond the city's schools by more organizations devoted to this mission than anywhere in the country. We provide unique programs and opportunities for children throughout the five boroughs in partnership with employers, philanthropic organizations, and city government. And we strive to ensure that we close the gender and diversity gap in technology. With Girls who Code, the Lower East Side Girls Club, Black Girls Code, FIRST Robotics, nPower, Per Scholas, and CQ4, we are building a future where our next generation will prosper and create solutions informed by and responsive to the city's vast and diverse trust of brain and experiences.

The scale of NYC's 120+ innovation-focused programs means that as this generation comes of age, it has an opportunity to build new products and start new businesses. With the scale of its talent and opportunities for innovators and entrepreneurs, NYC has fueled the transformation of startups to dominant market players and fed the exponential growth of tech giants like Facebook and Google. Amazon's existing operations here are already tapping into this pool, so it will be no surprise that with headquarter-level presence here, you will be able to create the distinct and ambitious training and R&D partnerships you need from Day 1.

We are thrilled to support the city's proposal and look forward to building a partnership between Amazon and the country's largest and most diverse urban workforce.

Sincerely,

Michael Preston, Executive Director,

**CSNYC** 

Andy Saldana, Director of Operations,

NY Tech Alliance

Anoop Kansupada, Co-Founder,

Founder's Organization

Ash Kaluarachchi, Co-Founder,

StartEd

Avi Flombaum, Dean, Flatiron School

Aviva, Markowicz, Managing Director,

NUMA

Bruce Lincoln, Co-Founder,

Silicon Harlem

Chad Arroyo, Executive Director,

**Bunker Labs** 

Chike Ukaegbu, Founder and Managing Director,

Startup 52

Christina Lewis Halpern, Founder and Executive Director,

All Star Code

Christine Souffrant, Co-Founder, Global Startup Ecosystem

Daniel A. Rabuzzi, Executive Director,

MOUSE

David Belt, Co-Founder and CEO,

**New Labs** 

Debera Johnson, Executive Director,

**BK Accelerator** 

Devin Chasanoff, Developer Evangelist,

SendGrid

Einstein Ntim, Co-Founder, Global Startup Ecosystem

Fernando Alvarez, Director of Programming,

**Bunker Labs** 

Frances Simowitz, Program Designer,

**NUMA Grand Central Tech** 

lynna Halilou, Director of Programs,

Yunus&Youth

Jason Wang, Executive Relations,

**Defy Ventures** 

Jeffrey Hittner, Founder,

Your Project X

Jennifer Litorja, Partner,

JKC Ventures

Joana Vicente, Executive Director, IFP Made in NY Media Center

John Lynn, Co-Founder and Managing Partner,

Studio Project

John Matson, Managing Director,

Voyager

Jukay Hsu, Founder and Chief Executive Officer,

C4Q

Julia Kaganskiy, Director,

New Museum

Justin Hendrix, Managing Director,

NYC Media Lab

Kelly Richardson, Managing Director,

NY, Per Scholas

KJ Singh, Director, **Techstars NYC** 

Matt Harrigan, Co-Founder and Managing Director,

**Grand Central Tech** 

Maurya Couvares, National Executive Director,

ScriptEd, Inc.

Micah Kotch, Managing Director,

Urban-X

Michael Lapin, Founder,

Beginex

Michael Zhu, CEO and Co-Founder,

Lair East

Michael Zigman, President and CEO,

**NYC FIRST** 

Molly Erman, VP Strategy and Communications,

New Labs

Jackie Trebilcock, Managing Director,

New York Fashion Tech Lab

Nicole McKnight, Managing Director,

Biolabs Harlem

Scott Cohen, Co-Founder,

**New Labs** 

Shaun Johnson, Co-Founder,

Startup Institute

Shen Tong, Co-Founder,

Food Future

Tarika Barrett, VP of Programs,

Girls Who Code

Tom O'Connell, Interim Executive Director,

Code/Interactive

Tristan Bel, Executive Director,

**NY Designs** 

Andrew Rasiej, Chairman,

NY Tech Alliance

Jake Schwartz, CEO and Founder,

**General Assembly** 

-New York City-– New York City -95--94





October 16, 2017

Mr. Jeff Bezos Founder and CEO Amazon.com

Dear Jeff and Amazon Team:

New York is the premier headquarters city for global companies. It is where traditional and new economies are converging, most dramatically in the retail and advertising industries. It is the clear choice for Amazon's second headquarters.

Amazon has already recognized the New York advantage with your decisions to locate several important business operations here. Establishing HQ2 in the city would complete Amazon's transition from West Coast disruptor to mainstream leader in direct-to-consumer commerce.

New York Metro is the world's largest and most diverse regional economy. It has the country's biggest concentration of discerning and demanding customers and clients. It offers co-location with companies that are industry leaders in financial and professional services, media and entertainment, fashion and retail, health and life sciences, education, design and development. It features unparalleled diversity of industry talent and institutional resources, all of which would enhance Amazon's prodigious strengths and generate new opportunities to learn, grow, and partner.

New York City and its surrounding communities represent a rapidly evolving ecosystem, with a broad spectrum of life style choices and prices, an excellent and affordable public transportation system, and an amazing array of cultural and recreational amenities.

New York will challenge your company and its people to be more productive, outward looking and forward thinking than ever.

A few facts about what makes New York best-suited for HQ2:

- 5.8 million residents with a bachelor's degree or better in the metropolitan region -80% more than Los Angeles, 5 times more than Seattle, 7 times more than Denver and 3.5 times more than Boston
- 100 great universities that awarded 18,000+ post-secondary STEM degrees in 2016
- 2.3 million residents with graduate or professional degrees more than the combined populations of Boston, Denver and Atlanta
- R&D spending by major academic institutions of \$2.9 billion in 2016, complemented by over \$1.6 billion in NIH grants
- 45% of New York's workforce is foreign born, reflecting the city's attraction to top global talent
- 47 Fortune 500 headquarters across multiple industries —more than any other city

- The largest and most comprehensive air transport system in the U.S., serving over 350,000 passengers a day
- 97% of the city's population lives within a quarter mile of public transit and 82% live within a 10-minute walk from a park

In New York, you will find a community of super-achievers who hail from every country in the world. That is the reason we are here and it is what makes this the logical place for Amazon's HQ2. We hope you agree.

#### Sincerely,

Lee S. Ainslie, III, Managing Partner, Maverick Capital

Candace K. Beinecke, Senior Partner, Hughes Hubbard & Reed LLP

William H. Berkman, Managing Partner, Associated Partners, LP

Michael W. Blair, Presiding Partner, Debevoise & Plimpton LLP

**Jeff T. Blau**, Chief Executive Officer, The Related Companies, L.P.

Kathy Bloomgarden, Chief Executive Officer, Ruder Finn, Inc.

Martin S. Burger, Chief Executive Officer, Silverstein Properties, Inc.

Patrick J. Burke, President & CEO, HSBC Bank USA

Kenneth I. Chenault, Chairman & CEO, American Express Company

H. Rodgin Cohen, Senior Chairman, Sullivan & Cromwell LLP

Michael L. Corbat, Chief Executive Officer, Citigroup Inc.

Kenneth D. Daly, President, National Grid New York

Barry Diller, Chairman & Senior Executive, Expedia, Inc. and Chairman & Senior Executive, IAC

William R. Dougherty, Chairman, Executive Committee, Simpson Thacher & Bartlett LLP

Douglas Durst, Chairman, Durst Organization Inc.

Blair W. Effron, Co-Founder, Centerview Partners LLC

**Joel S. Ehrenkranz**, Partner and Co-Founder, Ehrenkranz Partners L.P.

Joseph R. Ficalora, President & CEO, New York Community Bancorp, Inc.

Winston C. Fisher, Partner, Fisher Brothers

Alan H. Fishman, Chairman, Ladder Capital Finance LLC

Blair Fleming, Managing Director & Head, U.S. Investment Banking, RBC Capital Markets, LLC

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Eric J. Friedman, Executive Partner, Skadden, Arps, Slate, Meagher & Flom LLP

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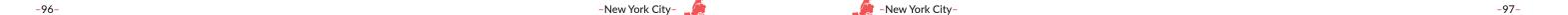
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Daniel Lubetzky, Founder & CEO, KIND Healthy Snacks

**Anthony E. Mann**, President & CEO, E-J Electric Installation Co.

Donald B. Marron, Chairman, Lightyear Capital

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**Jon Oringer**, Founder & CEO, Shutterstock, Inc.

John Paulson, President, Paulson & Co., Inc.

Michael A. Peterson, Chief Executive Officer, Peterson Management, LLC

Charles E. Phillips, Jr., Chief Executive Officer, Infor

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George H. Walker, Chairman & CEO, Neuberger Berman Group LLC

Charles Weinstein, Chief Executive Officer, Eisner Amper LLP

Kathryn S. Wylde, President & CEO, Partnership for New York City

Brett Yormark, Chief Executive Officer, Barclays Center &, Brooklyn Nets

Strauss Zelnick, Partner, ZMC

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Angela Sung Pinsky Executive Director

Association for a Better New York 355 Lexington Avenue New York, NY 10017

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www.abny.org

October 13, 2017

Mr. Jeff Bezos Founder and CEO Amazon.com 410 Terry Avenue North Seattle, WA 98109-5210

Dear Mr. Bezos:

For decades, ABNY has brought together New York City's business, labor, non-profit and political leaders to focus on exploring and implementing initiatives that keep it moving forward. So, it should come as no surprise how proud we are to advocate for New York City as the perfect host for Amazon's HQ2. The City's tech and academic community, educated workforce, unparalleled diversity, collaborative work environment, and long history of ingenuity are just some of the ways that it complements Amazon's values, and would truly be the perfect place to call home.

Today, the City's stakeholders and academic institutions are working in tandem to produce an educated workforce who will drive our 21st century economy forward. Just last month, we witnessed the ribbon cutting at Cornell Tech, a graduate school intended to attract the best minds to New York and serve as an incubator to the big ideas of tomorrow. Cornell Tech joins hundreds of New York higher education institutions churning out the type of leaders and big thinkers Amazon will need to continue its unmatched growth. Our colleges are exploring new ways to attract new and diverse individuals to the tech industry. For example, CUNY operates the WiTNY, a program to encourage women with little to no computer science background to become more active in the tech industry, and IN2NYC, the first municipal program designed to provide international entrepreneurs with access to visas to promote economic growth in the area. NYU's Center for Urban Science & Progress is using applied data science and incubator space to encourage those in the tech field to help build smarter, more connected cities. In total, NYC schools are producing 4,500 computer science degrees each year.

You will not find a stronger talent pool anywhere in the world. The City and its boroughs alone boast a workforce of 1.18 million workers with college degrees. But with our world-class transportation system, Amazon can tap into a much wider a pool of talent including 5.44 million eligible workers with a bachelor's degree, and an outstanding 2.28 million with a graduate or doctoral degree. And we are adding tech jobs each year. According to the recently released The 2016 Tech Ecosystem report, New York City is home to 326,000 tech-related jobs,

— New York City -New York City--99 and that number stands to grow.

New York does more than grow and nurture the best talent, it attracts talent from across the globe. New Yorkers speak more than 200 different languages, and hosts several neighborhoods and enclaves that often provide a comfortable, and familiar place to call home for many different cultures. The pool for diverse talent is vast and adds 82,500 international or out-of-state college educated employees each year, including 39,600 additions to the work force with graduate degrees. Amazon can greatly benefit from the diversity of viewpoints and cultures that only New York City offers.

There is no place better for a business to collaborate – New York is home to leaders in finance, advertising and digital strategy and retailing. It has the greatest concentration of Fortune 500 companies in the nation, and is eager to make Amazon one of its crown jewels. Silicon Alley and other areas of the City have burnished our reputation as a tech innovator, and Amazon can cement that reputation.

And New York is always in search of the "next big thing." The remote control, credit cards, air conditioning, and the pneumatic railway all got their start in New York City. There is nothing this City would enjoy more than serving as the birthplace to Amazon's next big idea.

We also know how much your employees will enjoy our City's world-class food and entertainment, over 1,000 museums and cultural institutions, the stunning views of the New York City skyline, and our rich history. All while getting around and meeting critical business needs with the world's largest mass transportation system, and access to international airports, major roadways and arteries, and global shipping ports. There is no place we would rather live and work, and we think your employees would agree.

Finally, as the skyline confirms, this City can build anything, including Amazon's next workplace. Our real estate industry is booming and our network of 188 culturally diverse neighborhoods have long served as a home away from home for residents from around the globe. Any of these neighborhoods are willing and able to extend New York's unique brand of hospitality to Amazon's offices and its employees.

ABNY's core mission is to make New York City a better place to live, work and visit, and serving as the home to Amazon 2HQ will achieve all three. We are ready, willing and able to assist in anyway needed as your next neighbor.

Sincerely,

Association for a Better New York 355 Lexington Avenue New York, NY 10017

-100- -New York City-

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Mr. Jeff Bezos Founder and CEO Amazon.com

410 Terry Avenue North Seattle, WA 98109-5210

October 17, 2017

Dear Mr. Bezos:

As President and CEO of New York Building Congress, a membership organization working on behalf of the city's construction industry, I am thrilled that you are considering New York City as the home of Amazon's second headquarters (HQ2). Building Congress members have literally built New York's transportation network, its office buildings, parks and institutions of higher learning, healthcare and culture, and we firmly believe New York City uniquely meets Amazon's criteria for HQ2.

In addition to its ready-to-move-in infrastructure, New York City's workforce is the largest and most diverse in the country, and is also the best educated. We have half a million higher-education students at more than 100 colleges and universities, including at the new Cornell Tech campus on Roosevelt Island, NYU's Tandon School of Engineering in Brooklyn, and Columbia University's rapidly expanding Manhattanville campus. Globally competitive corporations like Amazon must be able to tap into a deep talent pool like New York City's to hire the world's most creative, innovative, and entrepreneurial minds.

Furthermore, New York City is in the midst of an unprecedented building and jobs boom that will allow us to seamlessly absorb Amazon's exponential growth. Here, we can source 50,000 jobs without a problem. The City absorbed more than 100,000 new jobs during the past 12 months alone, and constructed more than 90,000 units of housing over the past three years.

The Building Congress believes in a five-borough approach to economic growth and development, and there are indeed sites in all five boroughs that Amazon could comfortably call home, each of which could be developed immediately and at a comparable cost to other U.S. cities. Each of the sites already offers a multitude of transit and housing options, and could easily support Amazon's initial space requirements and future growth projections.

At the end of the day, New York City is the right choice for Amazon's HQ2. Its success is important – not just to New York City, but to the country, is the ever-competitive global economy. My fellow New Yorkers and I look to welcoming HQ2 to the greatest city in the world, and to building our futures together.

Sincerely,

Carlo A. Scissura, Esq President and CEO

44 WEST 28TH STREET, 12TH FLOOR, NEW YORK, NY 10001, TEL 212.481.9230, FAX 212.447.6037, BUILDINGCONGRESS.COM

-New York City-

-101-

#### THE PORT AUTHORITY OF NY & NJ

October 17, 2017

Mr. Jeffrey P. Bezos Founder and Chief Executive Officer Amazon 2121 7th Avenue Seattle, WA 98121

Dear Mr. Bezos,

The Port Authority of New York and New Jersey (Port Authority) is excited about the prospect of Amazon's announced second headquarters initiative (HQ2) being located within the Port Authority's Port District - encompassing approximately 1,500 square miles within the New York - New Jersey metropolitan region. Given Amazon's status as a leading internet retailer and technology company, and its current need for a second headquarters facility, we believe that the facilities, services, transit and transportation infrastructure, talented workforce and vibrant host communities within the Port District offer an unparalleled opportunity to locate HQ2.

The Port Authority's operates six airports: Newark Liberty, John F. Kennedy, LaGuardia, Stewart International and Teterboro General Aviation; the third largest freight port system in the nation with key marine terminal facilities located in Newark, Elizabeth, Jersey City, Bayonne, Brooklyn and Howland Hook surrounded by significant warehousing and logistical infrastructure; the PATH Rail system which serves commuters in both New Jersey and New York; and four bridges and two tunnels crossing the Hudson River which allow for the transport of people and goods.

Originally established by the Compact of April 30, 1921, between the states of New York and New Jersey with the consent of the United States Congress, the Port Authority's mission was to promote and protect the commerce of the Port District. Our mission today remains as vital and critical - to meet the critical transportation infrastructure needs of the bistate region's people, businesses, and visitors by providing the highest-quality and most efficient transportation facilities and services to move people and goods within the region, provide access to the nation and the world, and promote the region's economic development.

The Port District is within a metropolitan region that is home to over 18 million people and a variety of industries including technology, finance, electronics, education, healthcare, manufacturing and entertainment. Its major cities have a proven ability and commitment to

#### THE PORT AUTHORITY OF NY & NJ

attract a diverse portfolio of companies with a focus on economic growth and development that has created a business friendly environment with positive local, regional and national impacts.

The Port Authority actively supports the surrounding communities and is proud to partner on numerous initiatives to continually address the transportation infrastructure needs of this vital, growing region. The diverse workforce, established industry and business disciplines and world-class transportation, educational, cultural and community amenities equal a unique and exciting destination for Amazon and its employees. For all of these reasons we urge you to consider and offer our ardent support for locating HQ2 within the Port Authority's Port District. We welcome you to the east coast's premier destination and look forward to working with you.

Sincerely,

Kevin O'Toole Chairman Rick Cotton

Executive Director

# jetBlue<sup>\*</sup>

27-01 Queens Plaza North Long Island City, NY 11101 T: 1-800-JETBLUE jetblue.com

October 12, 2017

Jeff Bezos
President, Chief Executive Officer and Chairman of the Board
Amazon
410 Terry Avenue North
Seattle, WA 98109-5210

Dear Mr. Bezos:

On behalf of more than 21,000 JetBlue crewmembers, and particularly the 7,500 based in New York State, I am writing to encourage Amazon to select New York for its second headquarters. As New York's Hometown Airline<sup>TM</sup> and the only major passenger airline headquartered in New York, JetBlue has experienced firsthand the benefits New York has to offer.

Today, JetBlue is a 17-year old company that has grown to be the sixth largest airline in the country. Much like Amazon, we still see ourselves as a startup and we aspire to maintain that ethos forever. Nearly eight years ago, JetBlue engaged in a comprehensive multi-state search – not unlike yours – to explore headquarters relocation but ultimately decided to remain in New York City. Our decision was driven by the region's strengths – a strong and diverse talent pool and community, a business friendly climate, and broad access to bus, rail and, of course air travel. We are proud to call Long Island City in Queens, New York home.

If Amazon chooses New York for its second headquarters, the company and its employees will have access to unparalleled air service around the country and the across the globe from local airports, including comprehensive service offered by JetBlue. With up to 232 daily departures from New York JFK, New York LaGuardia, Newark Liberty, Westchester County, and Newburgh/Stewart, JetBlue provides its award winning customer service on nonstop flights to 71 destinations in 20 countries. Service from New York JFK to Los Angeles and San Francisco – and Seattle beginning April 2018 – features JetBlue's Mint Experience, offering a completely rethought design and a more personal approach to service, addressing the needs of the modern traveler with a premium experience priced as low as one-third the premium fares on legacy airlines. With more than 40 partner airlines, JetBlue provides seamless access to international destinations around the world.

JetBlue's 2010 decision to further invest and grow our presence – both at New York's airports and as we moved our headquarters to create JetBlue's Long Island City Support Center – was driven by the connection our company, our crewmembers and our customers share with New York. Every JetBlue crewmember, no matter where they work across our network, knows that we are New York's Hometown Airline™. We live and work in New York, we contribute to and participate in community and charitable efforts in New York, and we play in New York just like our customers and yours. I'm confident that Amazon will have the same positive experience.

As you know, Amazon and JetBlue have a broad marketing partnership in which Amazon has sponsored JetBlue's Fly-Fi, the only free, high-speed inflight Wi-Fi offering in the United States, and JetBlue markets Amazon's Video streaming service and Amazon's original content inflight. We hope you will build on that partnership by selecting a JetBlue Focus City to build your second headquarters.

Sincerely.

Robin Hayes

President and Chief Executive Officer

#### HEARST

October 16, 2017

Mr. Jeff Bezos Chairman & CEO Amazon 410 Terry Avenue North Seattle, WA 98109-5210

Steven R. Swartz President and Chief Executive Officer

Dear Jeff:

Business Media Entertainment & Syndication Magazines Newspapers Real Estate Television Ventures As a member of the executive committee of the Partnership for New York City and a CEO of a New York-based company, I'm writing personally in support of NYCEDC's bid to attract Amazon's second corporate headquarters to New York, the city Hearst has called home since our original headquarters was completed in 1928.

There are many reasons that we - along with the world's great corporations, and cultural, educational, healthcare and financial institutions - call New York City home, but first and foremost, it is a friendly city for businesses. The cross-pollination of industries found here is important for companies like ours, or Amazon, who need partnerships with different businesses to grow.

Hearst's commitment to New York City can be illustrated very simply, but dramatically. While fires raged downtown on the afternoon of Sept. 11, 2001, our architect, Norman Foster, was presenting his Tower designs to our board. We were resolute to show that our spirit, and those of most New Yorkers, was not to give in to terrorism, but instead, to move forward. And so, we were the first major construction project to be commissioned following that tragic day and became the first "green" high-rise office building (now LEED Platinum) completed in New York City. Since then, for the city's major corporations and building developers, Hearst has set a higher standard for building green.

The statistics regarding New York City's competitive advantages are impressive: The city's population is expected to surpass nine million by 2040 and almost half of New York's labor force is foreign born. More than 110 institutions of higher education and the largest public higher education system in the country operate here. New York is home to more Fortune 500 companies than anywhere else and a significant start-up scene has emerged. The city is investing in new, large-scale projects, including the Hudson Yards project and Cornell Tech campus on Roosevelt Island.

But in the end, it's is a great place to work, live and be inspired. Few cities offer the advantages that New York City does. It is truly the gateway to the world and a perfect place for Amazon to build its New York headquarters.

Sincerely,

Steven R. Swartz

300 West 57th Street New York, NY 10019 T 212.649.2183 F 212.649.2364 sswartz@hearst.com

-104- - New York City- - New York City- - New York City- - 105-



Fred Dixon President and CEO NYC & Company 810 7th Avenue New York, NY 10019 +1 212 484 1293 tel +1 212 247 6193 fax

October 6, 2017

Mr. Jeff Bezos Amazon HQ 410 Terry Avenue North Seattle, WA, 98109-5210

Dear Mr. Bezos,

On behalf of NYC & Company, the official destination marketing organization for the City of New York, and our 2,000-plus member businesses, cultural organizations, attractions, restaurants, hotels and retailers, I am very pleased to extend our wholehearted support of New York City as a premier destination for Amazon's second corporate headquarters.

As you know, no other city offers the cultural diversity and distinctive setting that our city offers. These attributes are reflected in NYC's vibrant cultural landscape, dotted with dozens of Broadway and Off-Broadway theaters, more than 100 renowned museums and world-renowned venues that host 10 professional sports teams and numerous concerts throughout the year. In addition to a wealth of cultural institutions. New Yorkers enjoy landmark shopping, nearly 2,000 public parks and 14 miles of beaches, more than 24,000 restaurants and over 113,000 hotel rooms.

NYC & Company partners with the various organizations that oversee these sectors, and we are committed to working closely with these entities to make sure that Amazon and its 50,000 employees have access to all the entertainment and hospitality options that truly set us apart from any other city in the world.

On behalf of NYC & Company, I thank you for considering New York City as Amazon's new home, and I look forward to welcoming you to our great city.

Sincerely,

Fred Dixon

President and CEO

NYC & Company







320 PARK AVENUE, NEW YORK, NY 10022-6838 TEL (212) 754-6700 FAX (212) 754-0243 www.hanyc.org

Jeff Bezos Chairman & CEO Amazon 410 Terry Avenue North Seattle, WA, 98109-5210

October 11, 2017

Dear Mr. Bezos,

On behalf of the Hotel Association of New York City, which represents 282 hotels in New York City, I strongly encourage you to build HQ2 in New York City.

New York City has a long and proud history of welcoming business and leisure travelers from around the world. It is the most visited City in the nation, with over 60M people anticipated to visit this year, and last year alone New York City hotels booked a record 34.8M room nights. The City has the largest selection of lodging choices in the nation. From one night to extended stay, from family suites to business-class accommodations, from pod-like quarters to luxury penthouses, New York City has rooms to suit every traveler's needs and preferences. And with 137,000 hotel rooms expected by the end of 2019, and nearly 150 properties in the development and renovation pipeline, we'll have plenty of room for any visiting Amazonians and their guests. The Hotel Association of New York City encourages Amazon to choose the greatest city in the world for their HQ2.

We hope you will choose New York City for your new home and look forward to supporting your growth here.

Vijay Dandapani

President & CEO

#### **ELECTED OFFICIALS**

-108- -New York City- \_



CHARLES E. SCHUMER

NEW YORK

# United States Senate

**WASHINGTON, DC 20510-3203** 

**Democratic Leader** 

-109-

Jeff Bezos Chairman & CEO Amazon 410 Terry Avenue North Seattle, WA, 98109-5210

Dear Mr. Bezos:

As a native New Yorker and proud representative of the people of this city, I urge Amazon to make New York City the home of its second corporate headquarters. Here in New York we never stop thinking ahead, and we never stop innovating. With 8.5 million residents, over 9,000 startups and more Fortune 500 companies than any other city in America, the energy of New York City is unparalleled. It is that energy that will help propel Amazon's future growth and usher the company into its next chapter. We look forward to welcoming your continued growth here and helping you become a true New York institution.

As the nation's largest academic hub with 105 institutions of higher learning, we are able to offer the single most important resource a growing company requires: talent. The city's growing, educated, and diverse workforce – the largest and most talented in North America – is the applicant pool you need to bring Amazon to the next level. There are more New Yorkers with a bachelor's degree or above than there are residents of most cities. Those degree holders represent the ethnic and economic diversity of our city. Here in New York, we pride ourselves on the equity and excellence of our higher education system. The permanent extension of the American Opportunity Tax Credit (AOTC) which I authored in 2009, has helped make a college education accessible to young people citywide, including nearly 100,000 students at CUNY, one the largest and most diverse university systems in the nation. But it's not enough for education to be affordable, it must also be applicable to the demands of the 21<sup>st</sup> century economy. That's why last year U.S Senator Kristen Gillbrand and I committed nearly \$7 million in federal funds for STEM education initiatives at New York City colleges.

In New York, we connect talent with opportunity. Simply put, New York is the nation's most prosperous city because of its infrastructure. Without it, commerce never could have thrived here. Our robust subway and bike-sharing systems, constantly improving bus system, and new five borough ferry service ensure that no matter which neighborhood Amazon decides to call home, it will be part of the fabric of the city. A federal commitment of \$16 billion in direct infrastructure funding to New York State through the 2015 FAST Act ensures that we will continue to innovate with projects like Second Avenue Subway Phase 2, the Brooklyn-Queens Expressway Triple Cantilever, and Select Bus Service. Home to the nation's largest international freight gateway for



air cargo and the destination of more than 60 million tourists a year, we've made great strides to upgrade our airports and remain a leading global transportation and freight hub.

Like Amazon, our commitment to "being green" is more than a passing fad. Being a leader in sustainability isn't just the right thing to do; it is imperative to creating stronger, more resilient communities and fortifying our position as an economic powerhouse. We came face to face with this reality in the aftermath of Superstorm Sandy in 2012, which is why I fought for a \$60 billion relief bill. The bill provided the largest injection of federal dollars into New York infrastructure since the New Deal, with nearly a third of these funds supporting infrastructure like transportation systems, hospitals, public housing and coastlines, all while making us greener and more resilient.

Over the years, New York City has been a port of hope for millions of immigrants from more than 150 counties seeking refuge and opportunity. We remain an example of the creativity, innovation, and forward-thinking that is possible in this country. Like Amazon, we prize energy and new ideas, and we will never stop thinking of ourselves as a startup. We remain nimble, adaptable, and bold. Come join us so we can make history together.

Sincerely,

Charles E. Schumer United States Senate

Charles Schumes

-110- New York City-



Jeff Bezos Chairman & CEO Amazon 410 Terry Avenue North Seattle, WA, 98109-5210

October 16, 2017

Dear Mr. Bezos:

We, as a united body of elected officials, urge Amazon to make New York City the home of its second corporate headquarters. As the most dynamic and diverse city in the world, New York City will help propel Amazon's future growth and kickstart an exciting new chapter in the company's history. And we know that, no matter which city neighborhood it might choose for its new headquarters, Amazon will be a strong contributor to our civic and commercial life.

Put simply, noplace has more to offer Amazon than New York City. Our five boroughs are hives of ingenuity—we have over 9,000 startups and more Fortune 500 companies than any other city in the nation. New York City firms receive more venture capital funding than nearly any other metro area. We are also the nation's largest academic hub, with 105 institutions of higher learning and world-class teaching hospitals that are shaping the future of healthcare.

For these reasons and others, New York City is able to offer the single most important resource a growing company requires: talent. New Yorkers are an unbelievably skilled group. Amazon will be able to source 50,000 new employees immediately from the city's growing, educated, and diverse workforce, the largest and most talented in North America. Of the 8.5 million New Yorkers, 3.3 million are immigrants hailing from 150 countries. There are more New Yorkers with a bachelor's degree or above than in Los Angeles, San Francisco, Seattle, Washington, D.C., and Atlanta combined. We are home to industry leaders in tech, law, media, and medicine. And we are making sure that the next generation of New Yorkers is prepared for the 21st century economy by integrating computer science education at every level of the academic pipeline.

Moreover, New York City continues to grow: by 2040, we will be home to 9 million people eager to share their skills and build their futures here.

What else separates New York City from the competition?

- Accessibility: We are the heart of the Boston-Washington corridor, the most heavily urbanized region of the country.
   New York City is already Amazon's largest market for Prime, and an early adopter market for services like Prime Now.
   By putting HQ2 in New York City, the company will have direct access to 52 million residents of our metro area. And with three regional international airports, the entire world is only a plane ride away.
- Affordability: New York City is making unprecedented investments in housing, childcare, and transportation to make it more affordable for everyone. Since 2014, the city has financed over 75,000 affordable units of housing, significant progress towards our 200,000-unit 10-year goal. Our housing options are diverse and span the five boroughs and the metropolitan region. We have all types and price points for junior engineers and senior executives alike. Moreover, New York City is one of the few places that offer high-quality universal, full-day pre-kindergarten for every 4-year-old. And our world-class public transportation system helps residents save thousands of dollars each year.
- Infrastructure: With the largest subway and bike-sharing systems in the world, a first-rate bus system, and a new ferry service, New York City has the transportation infrastructure Amazon needs to thrive. We also are the most walkable city in the country, and have miles of greenways and bike lanes. New York is upgrading its airports to remain a leading global transportation and freight hub. By 2020, all three of New York's airports will have undergone extensive renovations and enhancements. To date, more than \$20 billion has been committed to these projects.
- Sustainability: Like Amazon, New York City is committed to being a leader in sustainability. New Yorkers know being green isn't just the right thing to do; it also improves the city's economic output and creates stronger, more resilient communities. In September 2014, the city committed to reducing its greenhouse gas emissions by at least 80 percent by 2050, with the goal of curbing the most devastating effects of climate change. The following year, we put forth a plan to ensure we were setting a global standard for urban growth and sustainability. Called OneNYC, the plan includes a roadmap for shoring up our transportation infrastructure and making our buildings more energy efficient.

● -New York City- -111-

No city embodies the American traditions of innovation and creativity quite like New York City. It has transformed from a Dutch settlement, to the nation's first capital, to a booming industrial center. It became a port of hope for millions of immigrants looking for a better life, and a model for urban revitalization. From Broadway, the Bronx Zoo and the Brooklyn Bridge, to Citi Field and the shores of Staten Island, New York City is a place where history is made every day. Our tradition of reinvention matches yours, and we invite you to join us in writing our next chapters together.

Sincerely,

Sitha Jones
Public Advocate Letitia James

City Council Speaker Melissa Mark-Viverito

Jal a. Brewer

Mest

Manhattan Borough President Gale Brewer

Ehi L Adams

Brooklyn Borough President Eric L. Adams

Mulen Di J.

Bronx Borough President Ruben Diaz Jr.

Melinda Kal

Queens Borough President Melinda Katz

James S. Oddo

Staten Island Borough President James Oddo

East L. Engel

Representative Eliot Engel

Jos E Semo

Representative Jose Serrano

Senold Hadlen

Representative Jerrold Nadler

Carolyn B. Malore

Representative Carolyn Maloney

Tayon Ullyan

Representative Nydia Velázquez

Representative Gregory Meeks

Representative Joseph Crowley

Yutte D. Clarke

Representative Yvette Clarke

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Representative Hakeem Jeffries

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Representative Grace Meng

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Representative Daniel Donovan Jr.

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Representative Adriano Espaillat

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**NYS Senator James Sanders** 

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**NYS Senator Michael Gianaris** 

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NYS Senator Roxanne J. Persaud

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NYS Senator Jesse Hamilton

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NYS Senator Kevin S. Parker

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NYS Senator Velmanette Montgomery

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NYS Senator Brad Hoylman

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NYS Senator Jose M. Serrano

Brian A. Benjamin

NYS Senator Brian Benjamin

Mand Wenter NYS Senator Marisol Alcantara

NYS Senator Gustavo Rivera

De 74

NYS Assembly Member Andrew Hevesi

NYS Assembly Member Clyde Vanel

Cartini nolan

NYS Assembly Member Catherine Nolan

Trolye Prefect

NYS Assembly Member Rodneyse Bichotte

NYS Assembly Member Robert C. Carroll

Steven Gubrowitz

NYS Assembly Member Steven Cymbrowitz

NYS Assembly Member Pamela Harris

Couph R. Lentol

NYS Assembly Member Joseph R. Lentol

NYS Assembly Member N. Nick Perry

Jair Will

NYS Assembly Member Jaime R. Williams

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NYS Assembly Member Michael Cusick

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NYS Assembly Member Carmen N. De La Rosa

NYS Assembly Member Dan Quart

Madel A. Blake

NYS Assembly Member Michael Blake

My

NYS Assembly Member Mark Gjonaj

NYS Assembly Member Victor M. Pichardo

Jui R. Sepilada

NYS Assembly Member Luis R. Sepúlveda



City Council Majority Leader Jimmy Van Bramer



Council Member Margaret S. Chin

Janel R. Soule

Council Member Daniel R. Garodnick

Ben Kallos Council Member Ben Kallos







Council Member Helen Rosenthal

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Council Member Ydanis Rodriguez

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Council Member Andrew Cohen

Jan Vacca

Council Member James Vacca

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Council Member Fernando Cabrera

Ritchie Im

Council Member Ritchie J. Torres

Vanessa d. Hisson

Council Member Vanessa L. Gibson

ALL J.

Council Member Rafael Salamanca Jr.

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Council Member Anabel Palma

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Council Member Paul Vallone

Council Member Peter Koo

Council Member Costa Constantinides

Bang A. Gwlenchil

Council Member Barry Grodenchik

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Council Member I. Daneek Miller

Karen Koslowit

Council Member Karen Koslowitz

E Group

Council Member Elizabeth S. Crowley

Stephen 1. Lemi

Council Member Stephen T. Levin

Council Member Antonio Reynoso

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Council Member Robert E. Cornegy Jr.

Helfan frant.

Council Member Mathieu Eugene

Cencent J. Sentile

Council Member Vincent Gentile

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Council Member Jumaane D. Williams

Chain Deutsch

Council Member Chaim M. Deutsh

Sebrah Pose

Council Member Deborah Rose

QB/

Council Member Joseph C. Borell





October 13, 2017

Jeff Bezos President, Chief Executive Officer, and Chairman of the Board Amazon.com 410 Terry Avenue North Seattle, WA 98109-5210

Dear Mr. Bezos:

As elected officials who represent the Midtown West area of Manhattan at the state and local levels, we write to express our support for the City of New York's proposal that Amazon locate its proposed HQ2 in this district that sits at the very heart of New York City.

The Midtown West district extends approximately from Sixth Avenue to the Hudson River, from 31<sup>st</sup> Street to 37<sup>th</sup> Street — 36 blocks covering more than 200 acres. Across its primary sub districts — Penn Plaza and Hudson Yards — Midtown West contains a multitude of existing buildings and development sites that would meet Amazon's near-term and long-term space requirements in new high-rise glass and steel towers, century-old buildings featuring limestone and granite, and everything in between.

In choosing to locate in Midtown West, Amazon would find itself at the center of the strongest transportation network in the region, and in the entire nation. The greater New York City metropolitan area has almost 20 million people, many of whom can rely on direct mass transit access to the district via Penn Station, subways, buses and ferries. Midtown West also is at the core of Amtrak's Northeast Corridor service with additional direct rail links to the region's major airports allowing unmatched access to talent, markets and partners.

Once in Midtown West, Amazon's employees would find a neighborhood rich in amenities: dramatic open spaces such as the Hudson River Park and the High Line; Madison Square Garden, Broadway, Carnegie Hall, Lincoln Center and museums; and of course the vibrant street life of Manhattan. We trust you and your colleagues are well aware of the many attractions of this area, given that Amazon already has signed leases totaling some 800,000 square feet in two buildings along the greater 34<sup>th</sup> Street corridor.

We are confident that New York City can suggest multiple suitable neighborhoods for Amazon's HQ2 but we would be delighted to welcome your continued expansion in this area.

Very truly yours,

Gale Brewer

Manhattan Borough President

Brod Hoylman
State Senator

Richard N. Gottfried Assembly Member

-114- - New York City-



\_\_\_\_\_ -New York City

-115-

October 13, 2017

Jeff Bezos President, Chief Executive Officer, and Chairman of the Board Amazon 410 Terry Avenue North Seattle, WA 98109-5210

Dear Mr. Bezos:

We are the elected officials representing Long Island City, Queens, and we write to express our strong support for Long Island City as home for Amazon's second corporate headquarters. As outlined in the proposal from the City and State, Long Island City offers a unique combination of existing buildings, ground-up, shovel-ready development sites, and longer-term expansion opportunities—all in one of the most culturally vibrant, well-connected, and fastest growing neighborhoods in the USA. We are confident that what the neighborhood has to offer well exceeds Amazon's requirements.

We write to you today because we know that Long Island City would be the perfect location for Amazon. The area's incredible access to transit, including subways, commuter rail, buses, bike sharing, and ferries, as well as its very close proximity to New York City's two major airports, position it as a true regional hub, with superb connections to local and regional housing markets and the unmatched talent base that lives in it. Long Island City is also already a truly mixed-use neighborhood, combining commercial, residential, tech, industrial, cultural and educational uses. Together, all of these assets make Long Island City among the most sought after communities in New York City and one of the most desirable in the United States.

We are very proud that our neighborhood is, in a world of increasing homogenization, one that is truly mixed-use and diverse, offering a vibrant business sector with leading companies across a range of industries, beautiful parks, amazing restaurants, spectacular views and robust cultural assets. Others claim it, but our residents actually do come from every walk of life, with our home borough, Queens, recognized as the most diverse county in the nation. Additionally, we are surrounded by some of the world's leading institutions of higher education, including, literally a stone's throw away, the beautiful new Cornell-Tech campus on Roosevelt Island, home to Cornell's world-class engineering school and Israel's renowned Technion University.

As we hope our signatures on this letter will show, Long Island City also benefits from an uncommonly strong collaboration among varied stakeholders—elected officials, residents, property owners, artists, educators and researchers, and real estate developers. Together, we are aligned and clear: Amazon HQ2 belongs in Long Island City! In our neighborhood, Amazon will be able to select from an almost limitless array of real estate options (high-rise, low-rise, brand-new buildings, adaptive reuse projects, privately owned, publicly owned, etc.). Our neighborhood further offers more than enough available space to allow Amazon to create an entire campus on a scale similar to its Seattle campus, either on the iconic East River waterfront or in the transit-rich downtown area or both—all within an easy and pleasant 15-minute walking radius.

It is our opinion that one of the great strengths of Long Island City is that we think boldly and creatively. We welcome the opportunity to further strengthen the area as a regional commercial hub, and invite

Amazon to join us as we continue to grow our neighborhood. We are anxious to welcome Amazon to a community that is, at once, fully-formed and continuing its evolution, thereby offering Amazon the opportunity to help shape its future.

We look forward to working together with you, the City, the State, and local stakeholders in the coming months to bring Amazon HQ2 to Long Island City, Queens.

Thank you for your consideration.

Sincerely,

Joseph Crowley

Member of Congress, NY-14

**United States House of Representatives** 

mital Grangins

Michael Gianaris

New York State Senator

12<sup>th</sup> District

Melinda Katz

President

Borough of Queens

Carolyn B. Maloney

Member of Congress, NY-12

Carolyn B. Malore

**United States House of Representatives** 

Catherine Nolan

**New York State Assembly** 

37<sup>th</sup> District

Jimmy Van Bramer

Majority Leader, Chair of Cultural Affairs & Libraries

The Council of the City of New York

26<sup>th</sup> District

-New York City -New York City- 🍱 -117--116-



### Congress of the United States Washington, DC 20515

October 13, 2017

Mr. Jeffrey Bezos Chief Executive Officer President and Chair, Board of Directors Amazon.com, Inc. 410 Terry Avenue North Seattle, WA 98109

Dear Mr. Bezos,

We are excited that Amazon is seeking a second headquarters in North America and believe that Brooklyn is the only location that makes sense for Amazon HQ2. Brooklyn's diverse and highly-skilled workforce, as well as its established cultural scene, are beyond compare.

Brooklyn's population of nearly 2.7 million represents a breadth of diversity and talent that is truly unique. We speak more than 90 languages and represent over 130 countries. As a result, reinvention and innovation are at the core of our being. Whether by bike share, bus, subway, ferry, rail or plane we have the physical infrastructure and mass transit to easily move Amazon's employees to and from work and to connect to our region and the world.

Open space, stunning waterfront views and astonishing greenspaces abound throughout the borough. We have more than 100,000 university students in Brooklyn who choose to be here because of the accessibility to jobs and the excellence of our institutions of higher learning.

Our quality of life is second-to-none, with world-class arts and culture, unbeatable culinary variety and excellence, healthy workplace initiatives, and unparalleled transit access to all of the natural beauty our region has to offer. Brooklyn is the living embodiment of the United Nations and hosts 13 million visitors annually from across the country and around the world, and this number grows every year.

The diverse talent that Amazon needs to continue to thrive is right here in Brooklyn, USA. We welcome Amazon with open arms!

Sincerely.

HAKEEM JEFFRIES

Member of Congress

NYDIA VELAZQUE Member of Congress DANIEL M. DONOVAN, JR

Member of Congress

YVETTE D. CLARKE Member of Congress



October 13, 2017

Mr. Jeffrey Bezos Chief Executive Officer President and Chair, Board of Directors Amazon.com, Inc. 410 Terry Avenue North Seattle, WA 98109

#### **Brooklyn – A Prime Location for Amazon HQ2**

Dear President Bezos,

We are excited that Amazon is seeking a second headquarters in North America and believe that Brooklyn is the only location that makes sense for Amazon HQ2. Brooklyn's diverse and highly skilled workforce, as well as its established cultural scene, are beyond compare.

Brooklyn's population of nearly 2.7 million represents a breadth of diversity and talent that is truly unique. We speak more than 90 languages and represent over 130 countries. As a result, reinvention and innovation are at the core of our being. Whether by bike share, bus, subway, ferry, rail or plane we have the physical infrastructure and mass transit to easily move Amazon's employees to and from work, into Manhattan and connect to our region and the world.

Open space, stunning waterfront views and astonishing greenspaces abound throughout the borough. We have more than 100,000 university students in Brooklyn who choose to be here because of the accessibility to jobs and the excellence of our institutions of higher learning.

Our quality of life is second-to-none, with world-class arts and culture, unbeatable culinary variety and excellence, healthy workplace initiatives, and unparalleled transit access to all of the natural beauty our region has to offer. Brooklyn is the living embodiment of the United Nations and hosts 13 million visitors annually from across the country and around the world, and this number grows every year. The diverse talent that Amazon needs to continue to thrive is right here in Brooklyn, USA.

-119-

We welcome Amazon with open arms!

Sincerely,



Ehi I Adam Chain Peutsch

**Brooklyn Borough President** 

Eric L. Adams

Stephen T. Levin NYC Council, 33rd District

Laurie A. Cumbo NYC Council, 35<sup>th</sup> District



Robert E. Cornegy Jr. NYC Council, 36<sup>th</sup> District



Alan N. Maisel NYC Council, 46<sup>th</sup> District



Mark Treyger NYC Council, 47<sup>th</sup> District

Chaim M. Deutsch NYC Council, 48<sup>th</sup> District



**William Colton** NYS Assembly, 47<sup>th</sup> District

Peter J. Abbate, Jr.



Helene E. Weinstein NYS Assembly, 41st District



**Rodneyse Bichotte** NYS Assembly, 42<sup>nd</sup> District



NYS Assembly, 49<sup>th</sup> District

Joseph R. Lentol NYS Assembly, 50th District



**Robert C. Carroll** NYS Assembly, 44<sup>th</sup> District



Félix W. Ortiz NYS Assembly, 51st District



**Steven Cymbrowitz** NYS Assembly, 45<sup>th</sup> District



Walter T. Mosley NYS Assembly, 57<sup>th</sup> District



N. Nick Perry NYS Assembly, 58th District

Jaime R. Williams NYS Assembly, 59<sup>th</sup> District



Martin Malavé Dilan NYS Senate, 18th District



Jo Anne Simon NYS Assembly, 52<sup>nd</sup> District

Rosamflersand

Roxanne J. Persaud Martin J. Golden NYS Senate, 19<sup>th</sup> District NYS Senate, 22<sup>nd</sup> District



**Velmanette Montgomery** NYS Senate, 25<sup>th</sup> District

-New York City-

DISTRICT OFFICE: 165 PARK ROW, SUITE 11 NEW YORK, NY 10038 212-587-3159 FAX: (212) 587-3158

CITY HALL OFFICE: 250 BROADWAY, SUITE 1882 NEW YORK, NY 10007 (212) 788-7259

chin@council.nvc.gov



CHAIR AGING

COMMITTEES EDUCATION RECOVERY AND RESILIENCY RULES, PRIVILEGES, AND ELECTIONS

TRANSPORTATION YOUTH SERVICES

MARGARET S. CHIN COUNCIL MEMBER,  $1^{\pi}$  DISTRICT, MANHATTAN

Oct. 16, 2017

Jeff Bezos Chairman & CEO Amazon 410 Terry Avenue North Seattle, WA 98109-5210

Dear Mr. Bezos:

I write today as an elected official representing Lower Manhattan to urge Amazon to locate its 2<sup>nd</sup> corporate headquarters in our dynamic, diverse and thriving community. While I would be happy to see Amazon locate anywhere in New York City, I strongly believe that Lower Manhattan's unparalleled transportation and easy access to one of the largest pools of talented knowledge economy workers in the country make it the best choice for your global company.

A walk down any of our streets Downtown would reveal Lower Manhattan's transformation from a mostly commercial district into the thriving multi-use community it is today. With over 1,200 shops, bars and restaurants, as well as 83 acres of open space, Lower Manhattan is now one of the most sought-after locations for companies in the creative and technology sector.

For employees in creative industries who can work from anywhere, Lower Manhattan is quickly becoming the neighborhood of choice. By locating here, Amazon would join an increasingly well-established tech and creative community that includes Condé Nast and Spotify.

Amazon and its thousands of employees and visitors would also be the beneficiary of billions of dollars in public investment in Lower Manhattan's infrastructure and public spaces. And with our waterfront location, Amazon would be blocks away from ferry service to Midtown, Brooklyn and an increasing number of amenities on Governors Island.

With 50,000 jobs and up to \$5 billion in investment, Amazon's presence in Lower Manhattan could complete the World Trade Center campus and would be a ringing endorsement of this iconic City neighborhood's renaissance.

It is my hope that Amazon will recognize and seize this opportunity to be at the center of global commerce, culture and community by choosing Lower Manhattan as its newest base of operations.

Sincerely,

Margaret Chin

Margaret Chin Council Member, District 1 New York City Council

cc: Alicia Glen, Deputy Mayor for Housing and Economic Development James Patchett, President, New York City Economic Development Corporation Jessica Lappin, President, Downtown Alliance

-New York City-— New York City--123--122-



# LONG ISLAND



#### **COUNTY OF SUFFOLK**



#### OFFICE OF THE COUNTY EXECUTIVE

## Steven Bellone SUFFOLK COUNTY EXECUTIVE

Theresa Ward
Deputy County Executive and Commissioner

Department of Economic Development and Planning

October 16, 2017

Mr. Steven Gold Empire State Development 633 Third Avenue, 37th Floor New York, NY 10017

Dear Mr. Gold:

Please accept the attached Local Incentive information for the Islip Heartland portion of the Long Island Regional Proposal.

Given the unique nature and size of Amazon's HQ2, Suffolk County will work with Amazon and New York State to develop a custom program to reduce the cost of locating in the County. The programs that will be utilized include: Industrial Development Authority benefits that include reduced property taxes, sales tax exemption, and mortgage recording tax abatements, where applicable, and the possibility of training grants, housing assistance and assistance in obtaining NYS energy reduction and employment tax abatements.

Very truly yours,

Theresa Ward

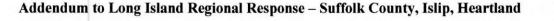
Deputy County Executive and Commissioner

Sheresa Wand

Suffolk County Department of Economic Development and Planning

Attachment included

-126- -Long Isl



Below is a sample PILOT for 500,000 SF Office Building in Heartland, Town fo Islip. Please note, while based on actual taxes, the PILOT schedule and sales tax exemptions listed below are purely for illustrative purposes only and do not constitute a commitment. This would also assume a lease that is net of property taxes and/or savings are passed from owner to tenant.

Heartland	AMAZON HQ2	Note
Town of Islip		2017/2018 taxes \$1,445,258 or approx. \$2.89 per sq. ft. for approx. 500,000 sq. ft. bldg.
		Assume lease of 42,000 sf by Project Horizon and no tax increases for illustration purposes
		Brentwood School District

Year	Tax Year	Taxes	% Abatement	Savings	Sav	ings/SF	Pay	% to be paid
1	Dec 2018 - 2019	1,445,258	The second secon	1,445,258	\$	34.41	-	0%
2	Dec 2019 - 2020	1,445,258	95%	1,372,995	\$	32.69	72,263	5%
3	Dec 2020 - 2021	1,445,258	90%	1,300,732	\$	30.97	144,526	10%
4	Dec 2021 - 2022	1,445,258	85%	1,228,469	\$	29.25	216,789	15%
5	Dec 2022 - 2023	1,445,258	80%	1,156,206	\$	27.53	289,052	20%
6	Dec 2023 - 2024	1,445,258	75%	1,083,944	\$	25.81	361,315	25%
7	Dec 2024 - 2025	1,445,258	70%	1,011,681	\$	24.09	433,577	30%
8	Dec 2025 - 2026	1,445,258	65%	939,418	\$	22.37	505,840	35%
9	Dec 2025 - 2026	1,445,258	60%	867,155	\$	20.65	578,103	40%
10	Dec 2025 - 2026	1,445,258	55%	794,892	\$	18.93	650,366	45%
11	Dec 2025 - 2026	1,445,258	50%	722,629	\$	17.21	722,629	50%
12	Dec 2025 - 2026	1,445,258	45%	650,366	\$	15.48	794,892	55%
13	Dec 2025 - 2026	1,445,258	40%	578,103	\$	13.76	867,155	60%
14	Dec 2025 - 2026	1,445,258	35%	505,840	\$	12.04	939,418	65%
15	Dec 2025 - 2026	1,445,258	30%	433,577	\$	10.32	1,011,681	70%
16	Dec 2025 - 2026	1,445,258	25%	361,315	\$	8.60	1,083,944	75%
17	Dec 2025 - 2026	1,445,258	20%	289,052	\$	6.88	1,156,206	80%
18	Dec 2025 - 2026	1,445,258	15%	216,789	\$	5.16	1,228,469	85%
19	Dec 2026 - 2027	1,445,258	10%	144,526	\$	3.44	1,300,732	90%
20	Dec 2027 - 2028	1,445,258	5%	72,263	\$	1.72	1,372,995	95%
		28,905,160		15,175,209			13,729,951	

\$	25,875,000	Est'd Capital Investment of \$300 Million x 8.625% sales tax rate *
Мо	rtgage Record	ding Tax
\$	1,575,000	(\$300M x 70% est'd mrtgage amt = \$210M x .75% mortgage recording tax exemption
Esti	mate of Bene	efits
\$	25,875,000	Sales Tax
	1,575,000	Mortgage Recording Tax
	15,175,209	Property Tax
\$	42,625,209	GRAND TOTAL

Composition Compos



1 EXECUTIVE DRIVE, EDGEWOOD, NEW YORK 11717 (631) 242-6300 • Fax: (631) 242-2820

September 27, 2017

Dear Amazon,

I would like to thank you for giving us the opportunity to introduce you to Heartland Town Square, our new smart growth community planned for Islip, in Suffolk County, New York.

Heartland Town Square is a 452 acre, already approved smart growth development. We believe that the old sprawl mentality of suburbia just doesn't work in the modern world. We know that a live, work and play environment where people can walk or bike to their office, stores and home is the lifestyle that is desired. Heartland Town Square with the ability to build over 15 million square feet, with 3 million square feet of office, 1 million square feet of retail and 9,000 apartments can achieve this all important balance. For a visual representation, please visit Heartland Town Square on YouTube.

Heartland Town Square is ideally located in the "heart" of Long Island, adjacent to the Long Island Expressway and Sagtikos Parkway, forty-two miles to Manhattan and the same distance to the Hamptons. It is adjacent to the Edgewood Preserve with 813 acres of open space, walking and biking trails. (For reference, the famous New York City Central Park is 843 acres.) It is also just minutes from Long Island's famous beaches. Heartland is also a transit oriented development. On site is the Deer Park station of the Long Island Railroad (LIRR) which can get you into the heart of Manhattan in under an hour.

I have over 50 years of extensive development experience both in New York City and Long Island. Heartland Town Square is adjacent to the 400 acre Heartland Business Center, an executive park I developed, with top ranked national and international companies. Also, it is just south of the 1,000 acre Hauppauge Industrial Park where I was one of its first developers and built over 5 million square feet of executive space.

Due to its tremendous size, and because of our 50 plus years of development experience in the region (we have built and manage over 10 million square feet), myself, my son David, and Heartland's team can accommodate anything Amazon wants. Heartland Town Square offers you, Amazon, the ability to grow with us and fulfill the company's desires to have an all encompassing business and lifestyle experience.

Sincerely,

Jerry Wolkoff

**EXHIBIT 4** 

158 State Street 10<sup>th</sup> Floor Albany, NY 12207 Tel (518-396-1086 verizon√

David Lamendola
Director
State Government Affairs – NY & CT

October 13, 2017

Ms. Alison Bates
Director of Finance and Structuring
Broadband Program Office
Empire State Development
625 Broadway
Albany, New York 12245

Dear Alison:

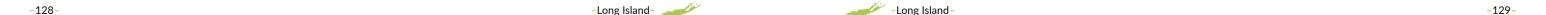
Thank you for reaching out to discuss broadband service availability at the locations you identified below.

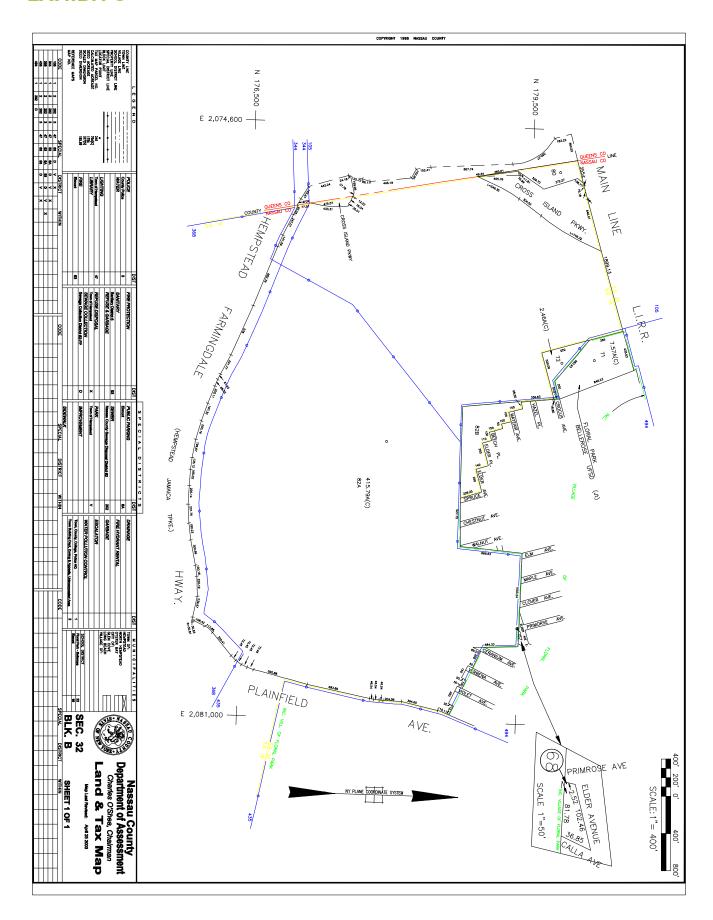
- 2150 Hempstead Tumpike, Elmont, NY
- Crooked Hill Rd., Brentwood, NY 11717 (Heartland Town Square)
- Downtown New Rochelle, NY
- 401 N. Middletown Road, Pearl River, NY 10965
- 294 Route 100, Somers, NY 10536
- 2875 Route 35, Katonah, NY 10536

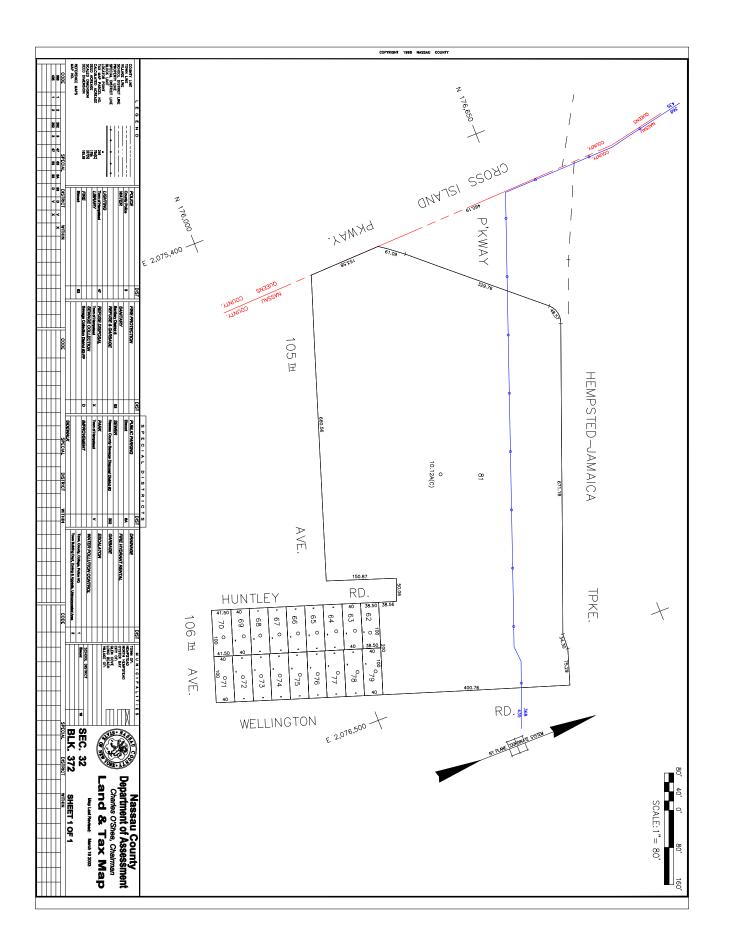
Verizon can deliver any speed at these locations. For example, Verizon's Central Office is less than a mile from the Pearl River site, so we could easily scale service based on expanded needs of a firm selecting this location.

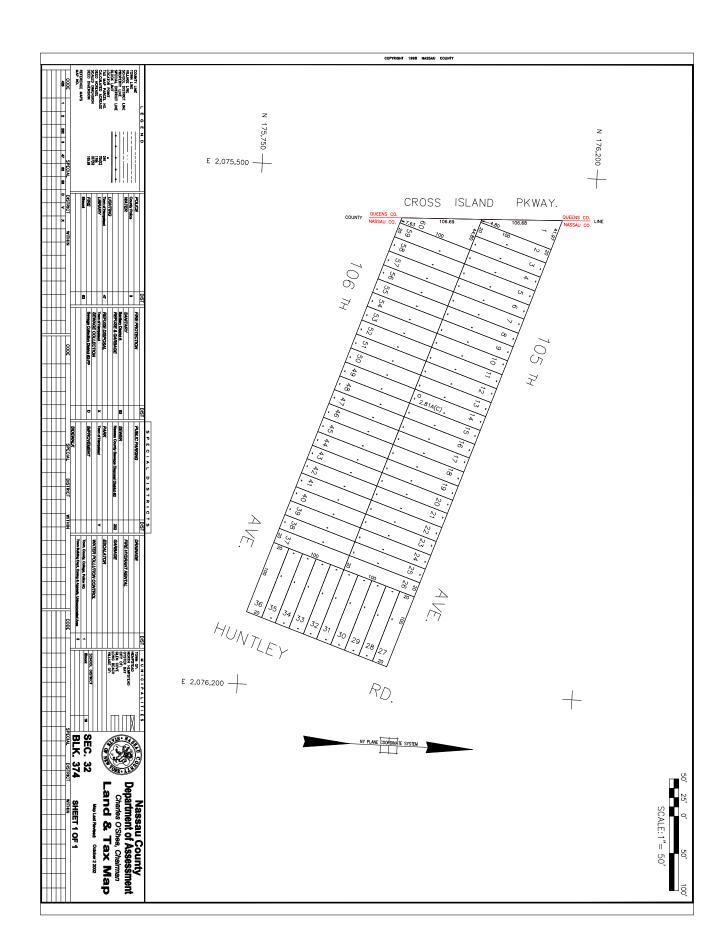
Ultimately, should a large firm require broadband services requiring fiber optic facilities they would need to engage Verizon's engineering and sales group prior to a move. Both teams will work with the firm to design and price a network to help with their expanded broadband needs. Please keep in mind that this will likely require engineering, design and construction charges.

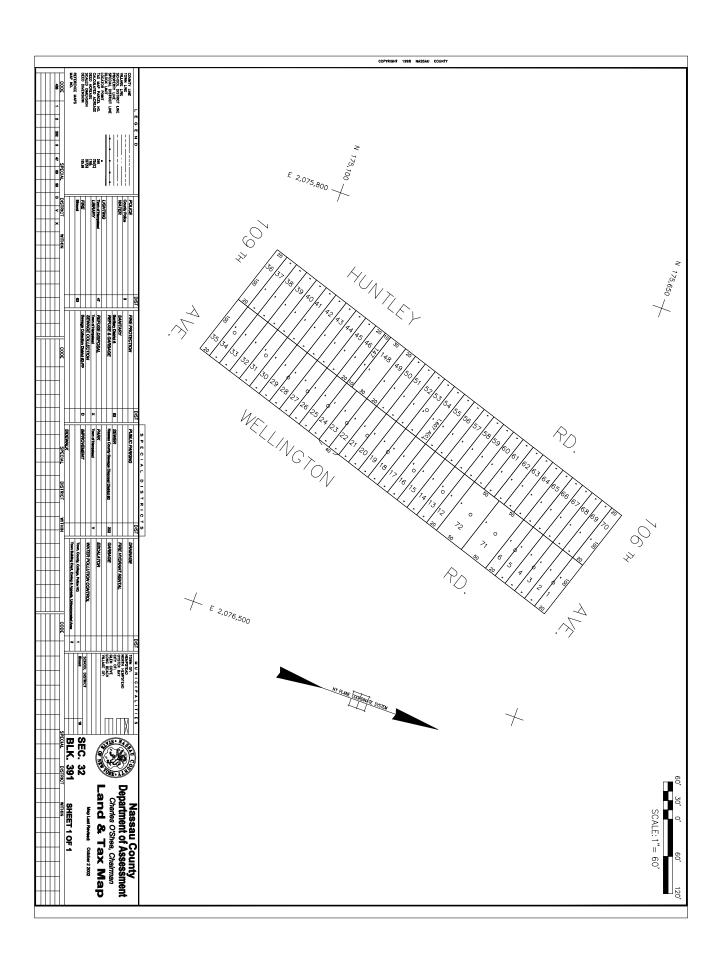
Sincerely yours.

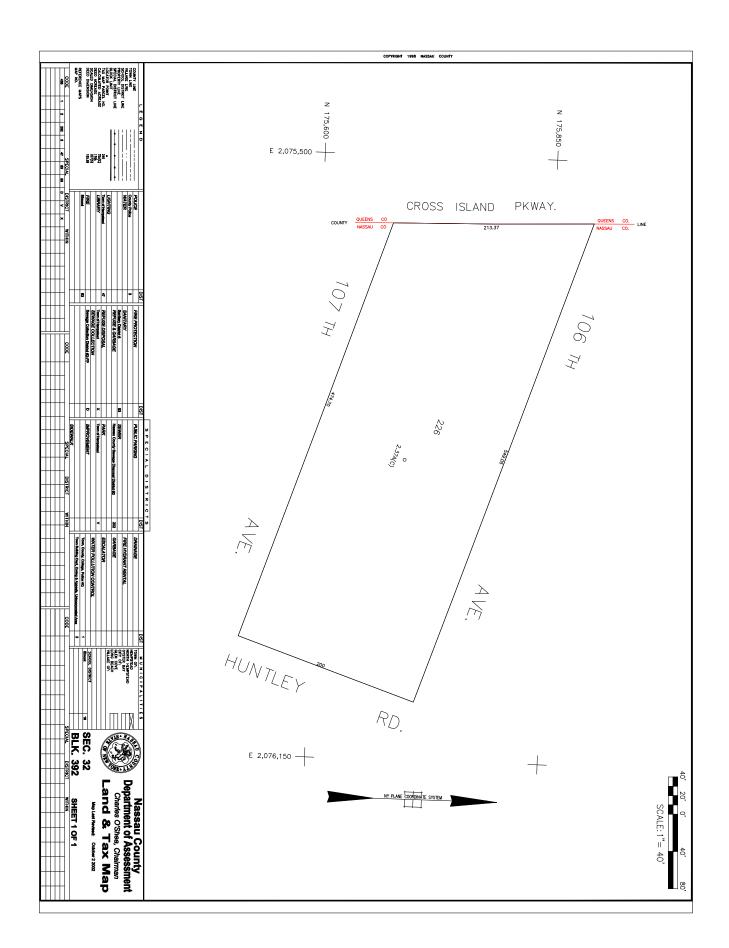


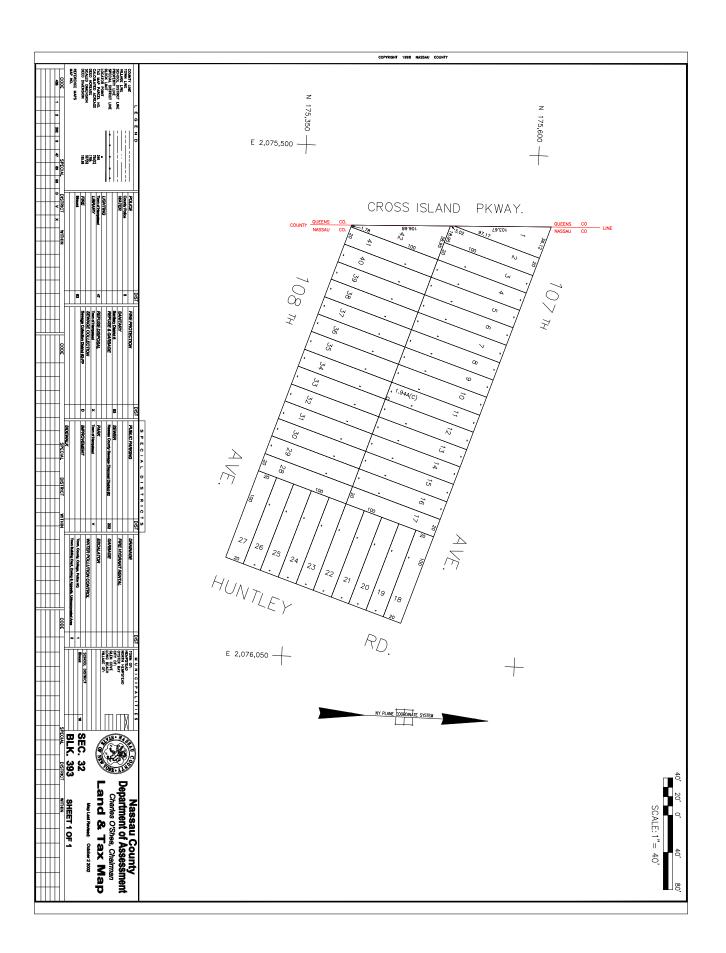




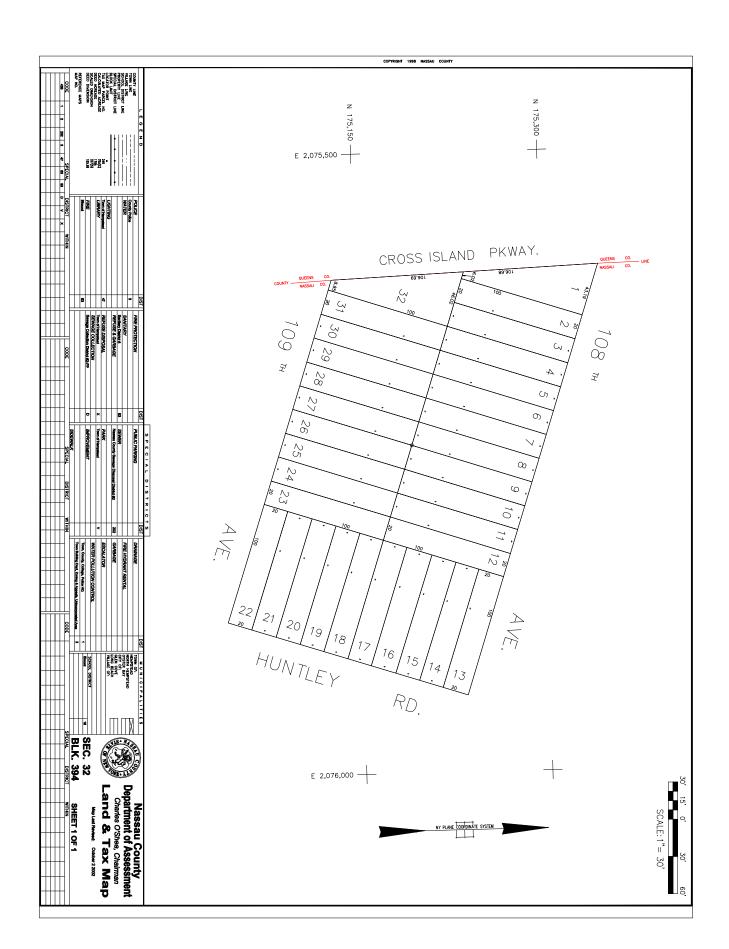


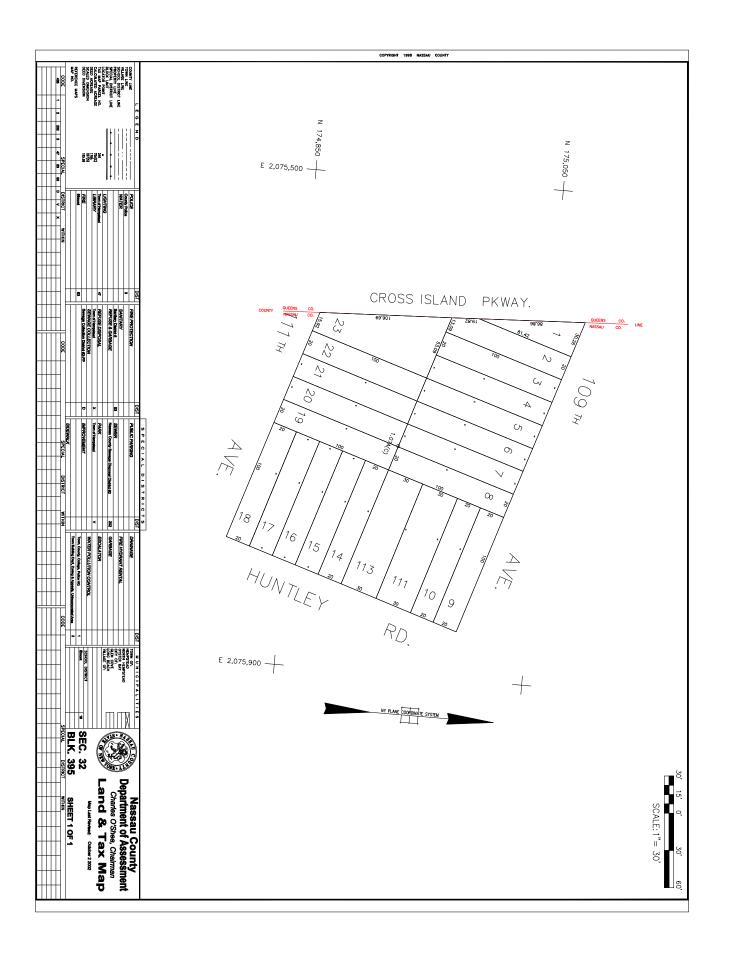




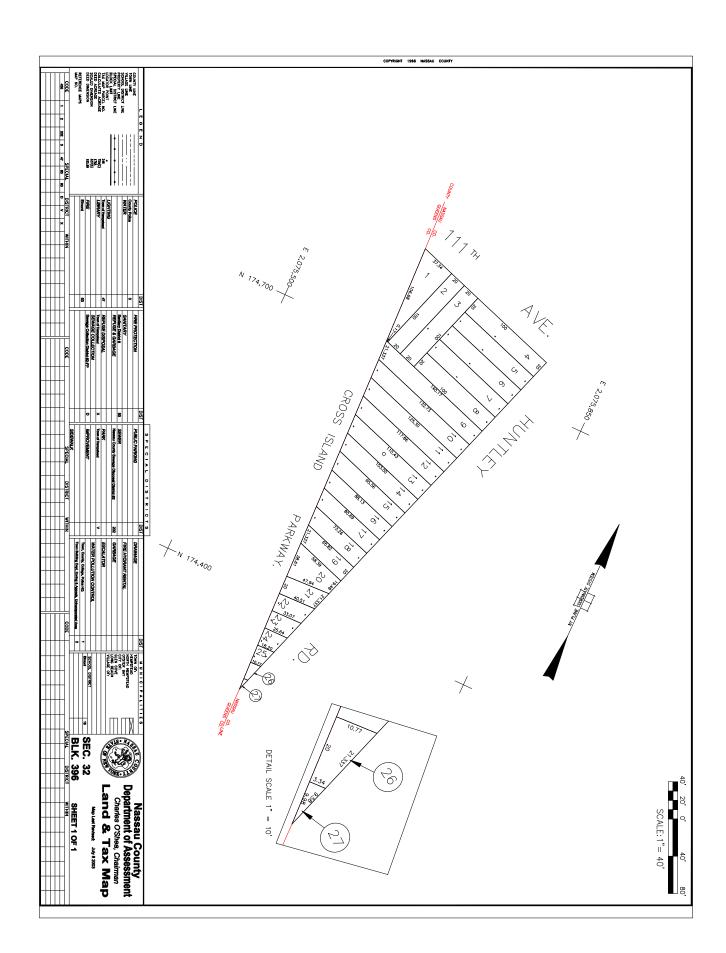


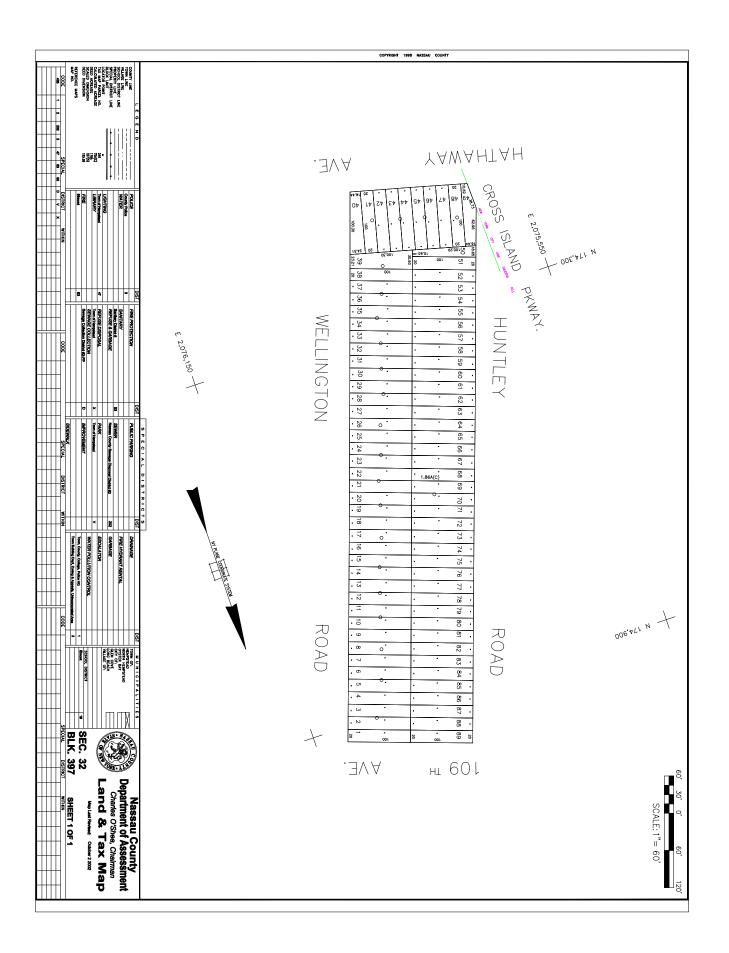
-134- -Long Island- -Long Island- -135-





-136- -Long Island- -Long Island- -Long Island- -137-





#### **EXHIBIT 6**

## EDWARD P. MANGANO COUNTY EXECUTIVE



# JOSEPH J. KEARNEY EXECUTIVE DIRECTOR

#### NASSAU COUNTY INDUSTRIAL DEVELOPMENT AGENCY THEODORE ROOSEVELT COUNTY EXECUTIVE & LEGISLATIVE BLDG. 1550 FRANKLIN AVENUE, SUITE 235 MINEOLA, NY 11501 TELEPHONE (516) 571-1945 FAX (516) 571-1076 www.nassauida.org

October 17, 2017

Mr. Steven Gold Empire State Development 633 Third Avenue, 37<sup>th</sup> Floor New York, New York

Dear Mr. Gold:

Nassau County is prepared to support an incentive package for Amazon having an estimated value in excess of **§2 Billion** for the construction of HQ2 at the Belmont Park site.

The Nassau County Industrial Development Agency (NCIDA) would be Amazon's local economic development partner. NCIDA has the ability to exempt and abate certain taxes in exchange for job creation and economic development.

The following tax exemptions would apply to HQ2:

- 1. NCIDA exempts state and local sales and use tax on all furniture, fixtures, equipment, and material related to the construction, installation and equipping of an eligible economic development project. The sales tax rate in Nassau County is 8.625%. The Amazon RFP estimates that the capital investment to construct HQ2 could be up to \$5 billion. Based on our prior history of successfully retaining and attracting large corporate clients, we typically estimate that 50% of the capital invested is for labor and 50% is for building material, furniture, fixtures and equipment. Using that ratio, if NCIDA exempted \$2.5 billion of capital investment for materials necessary to construct HQ2 at the 8.625% rate, Amazon would save over \$215 million.
- 2. NCIDA exempts a portion of the local mortgage recording tax levied on the principal amount mortgaged in connection with an economic development project. NCIDA is able to exempt .75% of the mortgage recording tax. Based on previous transactions, NCIDA estimates that 70% of the capital investment would be financed. Therefore, NCIDA would exempt .75% of the mortgage recording tax of the \$3.5 billion amount financed saving Amazon approximately \$26 million.
- 3. NCIDA exempts and/or abates ad valorem property taxes and assessments on parcel(s) of land and all improvements thereon for eligible economic development projects. Typically, NCIDA and the project applicant negotiate a payment in lieu of tax (PILOT)

agreement pursuant to which the project applicant agrees to pay contractual PILOT payments in lieu of the property taxes. The PILOT provides a term – typically between 10 and 30 years, and controls for the assessed value of the property and improvements and the tax rate by providing for fixed PILOT payments. NCIDA historically freezes taxes at the current tax rate and assessed value and phases in new assessed value over a period of years. Normally, NCIDA is not in the practice of cutting real property taxes.

However, as New York State-owned property, we understand that Belmont Park is exempt from real property taxes. NCIDA would be prepared to consider a PILOT for Amazon that would allow for the development and operation of HQ2 to remain exempt from ad valorem real property taxes for a period of up to 50 years. Property taxes in Nassau County for "Class A" office space have an estimated value of \$5 per foot. Constructing eight million square feet of office space would yield, without PILOT protection, approximately \$40 million annual in property taxes. Over a 50-year period, the savings could be in excess of \$2 billion.

In addition to direct incentives, NCIDA would work with all partner agencies, including but not limited to PSEG, National Grid, New York State and the United States Small Business Administration to maximize all available credits and incentives.

#### **Total Estimated Savings:**

Sales-Use Tax Exemptions: \$215,625,000

Mortgage Recording Tax Exemption: \$26,250,000

Property Tax Exemption: \$2,000,000,000

Total: \$2,241,875,000

NCIDA is governed by a Board of Members appointed by the Nassau County Executive and confirmed by the Nassau County Legislature. All tax exemptions granted by NCIDA are thoroughly reviewed and voted on by the Board of Members. As such, this letter does not constitute a commitment by NCIDA but represents a good faith estimate of the package of benefits that could be provided by NCIDA if Amazon chooses to locate HQ2 in Nassau County.

Respectfully,

Joseph J. Kearney

Executive Director

-140- - Long Island- - Long Island- - Long Island- - 141-



Canon U.S.A., Inc.
One Canon Park
Melville, NY 11747
Office of the Chairman

-Long Island-

October 3, 2017

To: Amazon HQ2 via NYS ESD

As the Chairman and CEO of Canon U.S.A. Inc., located in Melville on Long Island, New York, I am writing to encourage Amazon to strongly consider locating its second corporate headquarters on Long Island, New York. We chose to locate our Americas headquarters here because the region possesses all the assets necessary for our business and employees to thrive.

Canon U.S.A., which opened its new headquarters in February 2013 and continues to realize growth, oversees the company's operations in North, Central and South America.

This capped a long journey for Canon U.S.A., which for many years had been searching for a place on Long Island that would be a suitable location to establish a new home. Remaining on Long Island was always a top priority for the company to help retain the highly skilled and dedicated workforce, which now is nearly 1,700.

Measuring more than 500 feet long and nearly 300 feet wide and about 700,000 square feet, the building reflects Canon's strong commitment to environmental sustainability. "One Canon Park" has been awarded LEED® Gold certification, a recognition for the design, construction, operations and maintenance of high-performance green buildings. The facility stands as a model for environmental stewardship and innovation, and is the largest commercial property on Long Island to achieve this level of LEED.

The grounds have an open, campus-like feel with plenty of green space, a walking trail and two retention ponds. Within the five-story building (plus lower level), employees enjoy a state-of-the-art learning center, cafeteria, fitness center and other amenities.

Canon is committed to growing on Long Island. Canon aims to be a good corporate citizen within the community and will continue fostering relationships in the surrounding area.

Like Canon U.S.A., Amazon will benefit from Long Island's first-rate business climate. The legacy of innovation and community-wide insistence on excellent schools has resulted in a superbly qualified workforce. Investments in re-imagined suburban living have provided more housing and transportation choices. There are extraordinary cultural and recreational events locally, and easy access to New York City rounds out this location as ideal.

Canon U.S.A. would welcome a call or visit from the Amazon HQ2 team.

Sincerely,

Joe Adachi Chairman and CEO Canon U.S.A., Inc.



Broadridge Financial Solutions, Inc. 5 Dakota Drive, Suite 300, Lake Success, NY 11042 516 472 5454 Phone

Richard J. Daly Chief Executive Officer richdaly@broadridge.com

September 27, 2017

A Message for All Technology Employers Considering Establishing Operations in The Heartland Industrial Park, Town of Islip, Suffolk County, New York

As the Founder and CEO of Broadridge Financial Solutions, Inc., I can state without question that the Wolkoff family, the Town of Islip, Suffolk County and New York State have all acted like a true business partner in helping me build Broadridge from an extra bedroom in my East Northport NY home to a \$9.5 billion NYSE market cap technology company. From the day we moved into the Town of Islip in 1992, we were in a growth mode.

The Wolkoff family and the Town of Islip both cut through all of the red tape and enabled us to consistently expand our facilities and meet the growing demand that without their support, we would have otherwise not been able to satisfy. Going from 140,000 square feet to just under 1 million square feet in a 15 year period, often with only months to complete the expansions, is rarely achievable. Suffolk County – led by County Executive Steve Bellone – worked tirelessly and engaged New York State Governor, Andrew Cuomo to ensure we were able to remain on Long Island by creating a competitive tax benefits package without which we would have been forced to leave.

Long Island's high quality of life enables us to recruit and retain the technology associates that continue to drive our growth who like me love the easy-access to beaches and parks – that everyone on Long Island gets to enjoy.

Heartland is an unusual place; every conversation with the Wolkoff family begins with 'what do you need' versus 'how much will it cost and how long will it take'. I'd welcome the opportunity to discuss this further and share more details as to why doing business in Heartland is better than any of the other 50 locations Broadridge operates out of around the globe.

Very truly



Rihard / Daly

## OFFICE of the SUPERVISOR



## ANGIE M. CARPENTER Supervisor

September 28, 2017

## To whom it may concern:

Please accept this letter of support for the Amazon HQ2 project at Heartland Town Square, in Edgewood NY. As the chief elected official of the Town of Islip, I feel I can speak for the entire Town Board in welcoming the prospect of having Amazon's second headquarters within our borders. I can also state that you will not find a more business-friendly group of elected and appointed officials, ready to transform your concept of an innovative, sustainable, creative community into reality.

Heartland Town Square is an exciting, 452-acre planned life style community located only 40 miles from New York City, the financial capital of the world. It is connected to New York City by Interstate 495 on the northern border of the property, the Long Island Railroad on the southern border, and within less than a 10-minute drive to Islip's Long Island MacArthur Airport. Best of all, it is an approved, shovelready site, just waiting for Amazon to break ground. Recently approved for this site on 132 acres, is Phase I of a transit-oriented development including 3504 apartments, and nearly 1.2 million square feet of commercial/retail space... a mini city.

As is evidenced by the formal response to your RFP, Islip Town and Suffolk County are an ideal match for Amazon. Our local economy is robust; we have a great history of innovation and entrepreneurialism; and our educated and talented workforce out produce every other region in the country. Suffolk County is also home to many world-class research institutions. After all, we can literally boast that Long Islanders "put all of the men on the moon."

We are confident that you will give serious consideration to Heartland Town Square for your second headquarters location. I can guarantee that you will be impressed with all that what we have to offer.

> signe Carpenter Islip Town Supervisor

TOWN OF ISLIP 655 MAIN STREET ISLIP, NEW YORK 11751 (631) 224-5500







Phone: (516) 571-6203 Fax: (516) 571-6732 E-Mail(s): csolages@nassaucountyny.gov mphillips@nassaucountyny.gov dyngstrom@nassaucountyny.gov

Mineola, New York 11501-4895

September 27, 2017

Jeff Bezos, CEO Amazon 410 Terry Avenue North Seattle, WA 98109

Dear Mr. Bezos,

I am writing regarding the possibility of Amazon opening their new North American Headquarters at Belmont Park, Elmont.

New York State is currently receiving bids for development of up to 43 Acres at Belmont Park. Belmont Park is located on the border of Nassau County and New York City, in close proximity to the newly announced Manhattan office, 2 major airports, highways and public transportation. I have been working with state officials to upgrade the Belmont Long Island Rail Road Station, to have it run all year round, and believe these upgrades will begin soon. This location would provide the Amazon Headquarters with everything it would need geographically to thrive.

Apart from geography, the Belmont Park location offers a strong base of young workers with technical skills. Long Island has some of the top K-12 schools in the country, as well as colleges, that yearly produces top talent, that often has to leave the local area for better jobs. The creation of Amazon's Headquarters would allow this young talent the opportunity to stay and work, improving the community and Amazon.

Therefore, I respectfully request that Amazon strongly consider Belmont Park, Elmont, as a location for your new North American Headquarters.

Thank you for your anticipated courtesy and cooperation. Please keep me advised as to the status of this request.

Nassau County Legislator, 3rd Distric

Howard Zemsky, Ex-Officio Director, Empire State Development

-144--Long Island--Long Island -145



## a long island production

October 12, 2017

Mr. Nick Terzulli Nassau County IDA 1550 Franklin Avenue Mineola, NY 11501

Dear Mr. Terzulli:

-146

I have had the privilege to call Nassau County my home since birth and now as a professional, I have the privilege to grow my business here. Gold Coast Studios, a family run operation, is a 160,000 sq. ft. production facility located in Bethpage, NY. GCS is comprised of 6 sound stages, ranging in size form 9,000 sq. ft. with 26 ft. ceilings, up to 38,000 sq. ft. with 50 ft. ceilings, all columns free. Over the past 3 years we have made millions of dollars' worth of investments to our facility to turn it into a high class, state of the art movie production environment. Some of these renovations include removing the four columns that were located in our largest Stage and building a bridge over the roof to hold the ceiling once the columns were removed, updating our electric, adding air-conditioning, building hair and make-up, creating production offices, cam locks, sound proofing, lights and bells and much more.

After seeing the increase of the production of film and content in New York, we wanted to provide the industry with state of the art facility to meet their needs in Nassau County. Our studios offer an affordable and convenient alternative to the studios in New York City and around the world. Located just off of Exit 41 on Long Island Expressway and under an hour from the heart New York City, Gold Coast Studios supports every aspect of production with a friendly and personal touch. Our facility offers unbeatable prices plus you qualify for the 30% NY State tax credit. We pride ourselves on our flexibility and easy going relationships with our clients.

We have filmed some of the largest film ever done in New York state right here in Nassau County. These projects include The Amazing Spider Man for Sony Pictures, Oceans 8 for Warner Brothers, Sisters for NBC Universal, Red Oaks and Good Girls Revolt for Amazon, The Normal Heart for HBO, Kevin Can Wait for Columbia Pictures and many more.

999 S. Oyster Bay Road • Suite 200 • Bethpage, NY 11714 • Telephone 516-465-0000 • Facsimile 516-576-3170

Mr. Nick Terzulli October 12, 2017 Page 2

Filming in Nassau County certainly has its advantages. Being located in Nassau County allows us to benefit from the film tax incentives. We also have acres of land surrounding our studios which allows for productions to park freely, shoot outdoors and house trailers for both actors and equipment. Land like this is something that simply does not exist within the boroughs. Perhaps most importantly, is the effect the film industry has had on local businesses here in Nassau County. From hotels, to pizzerias, to local bagel stores-everyone profits from the production's presence. We are excited to see how far the film industry can grow here on the island and specifically in Nassau County, our home.

Sincerely

Lyndsey Laverty

Principa

LL:mb

3. Oyster Bay Road • Suite 200 • Bethpage, NY 11714 • Telephone 516-465-0000 • Facsimile 516-576-3170

-Long Island- -147-



DIRECT LINE: 631-843-5903 GENERAL BUSINESS: 631-843-5500 FAX: 631-843-5665

OFFICE OF THE CEO

October 3, 2017

To the Amazon team,

In 1994, Henry Schein, Inc. made one of the best decisions we ever made. In that year, we opened our new worldwide corporate headquarters in Melville, in Suffolk County, where we employ almost 2,000 Team Schein Members, and our success since then reflects the enormous wealth of talent on Long Island and in the New York metropolitan area.

Henry Schein is now the world's largest provider of products and services to office-based dental, animal health, and medical practitioners, with sales last year of \$11.6 billion and more than 21,000 Team Schein Members in 32 countries. As the Chairman of the Board and CEO of Henry Schein, I join with the business and government leaders of Long Island to encourage Amazon to locate its second corporate headquarters here.

On Long Island, you will find easy access to an exceptional talent pool (Nassau and Suffolk is in the top 10% of counties in the U.S. for adults with a bachelor degree or higher), a wealth of cultural and recreational activities (some of the world's finest beaches), and proximity to the world's greatest city – New York.

You will also find all levels of government ready, willing and able to work with business. Henry Schein maintains excellent relationships with Long Island's government leaders, who understand the business community and actively work to create incentives to recruit and retain business.

In summary, Long Island is a great place for business. We have a long history of social and technological innovation, a great work ethic, and a great quality of life.

We look forward to welcoming the Amazon team to Long Island.

Best regards,

Michael S Ettinger Senior Vice President

Corporate & Legal Affairs and

Chief of Staff

Henry Schein, Inc., 135 Duryea Road, Melville, NY 11747

-148- - Long Island - Long Isl

## LOWER HUDSON VALLEY



158 State Street 10th Floor Albany, NY 12207 Tel (518-396-1086

## verizon/

David Lamendola Director State Government Affairs - NY & CT

October 13, 2017

Ms. Alison Bates Director of Finance and Structuring **Broadband Program Office Empire State Development** 625 Broadway Albany, New York 12245

Dear Alison:

Thank you for reaching out to discuss broadband service availability at the locations you identified below.

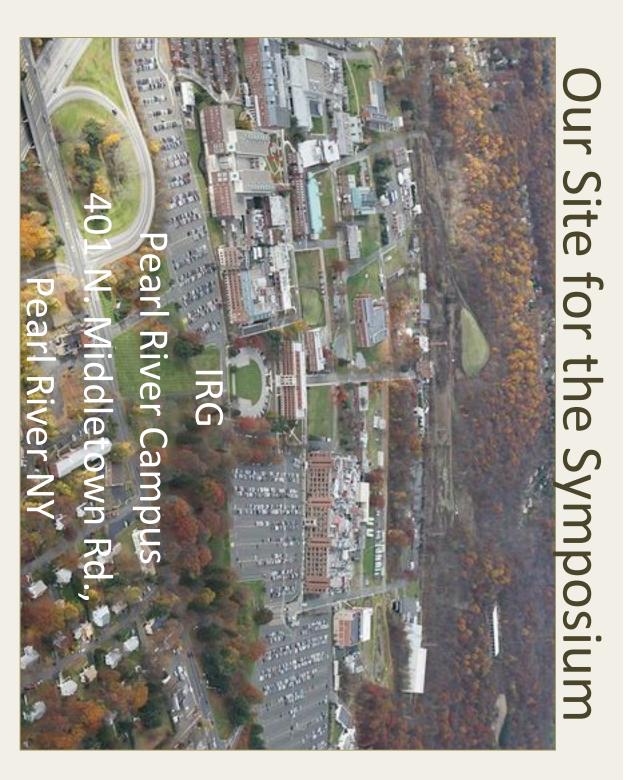
- 2150 Hempstead Turnpike, Elmont, NY
- Crooked Hill Rd., Brentwood, NY 11717 (Heartland Town Square)
- Downtown New Rochelle, NY
- 401 N. Middletown Road, Pearl River, NY 10965
- 294 Route 100, Somers, NY 10536
- 2875 Route 35, Katonah, NY 10536

Verizon can deliver any speed at these locations. For example, Verizon's Central Office is less than a mile from the Pearl River site, so we could easily scale service based on expanded needs of a firm selecting this location.

Ultimately, should a large firm require broadband services requiring fiber optic facilities they would need to engage Verizon's engineering and sales group prior to a move. Both teams will work with the firm to design and price a network to help with their expanded broadband needs. Please keep in mind that this will likely require engineering, design and construction charges.

Sincerely yours,







## Pfizer: Pharmaceutical manufacturer, research & development group

land along with 15 buildings for reuse sell off 207 acres of their 550 acres of November 2015 announced plan to

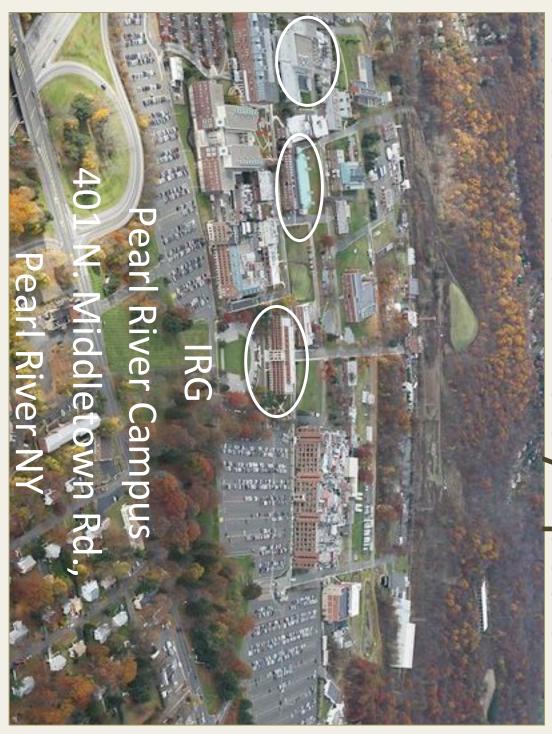


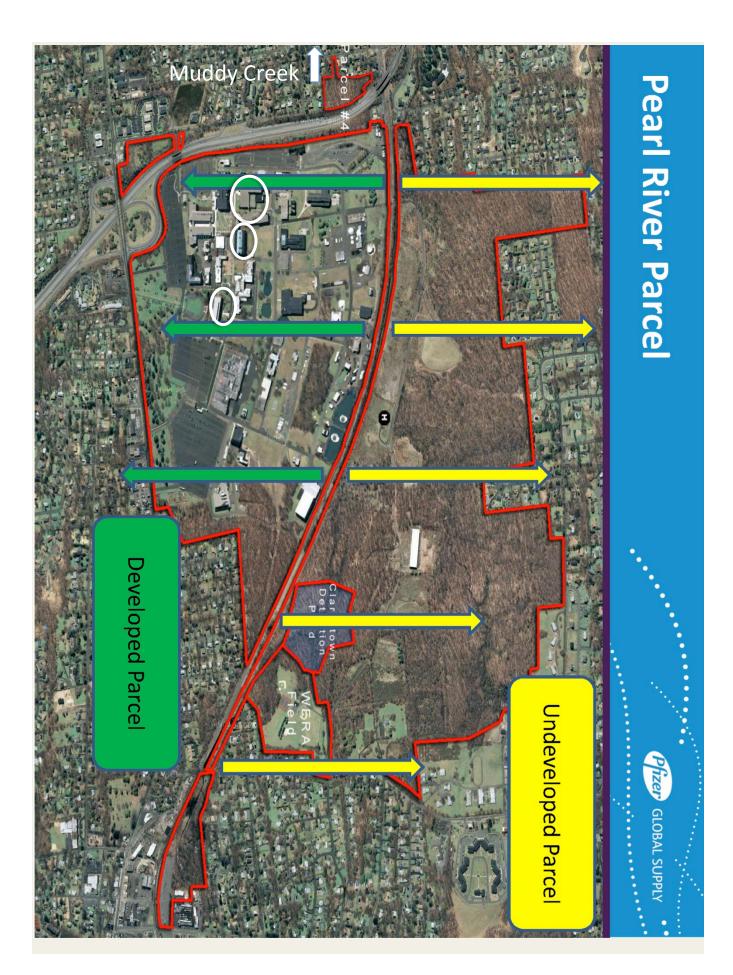
Investment & development group, is handling California based IRG, a National Real Estate the transitional pieces of the

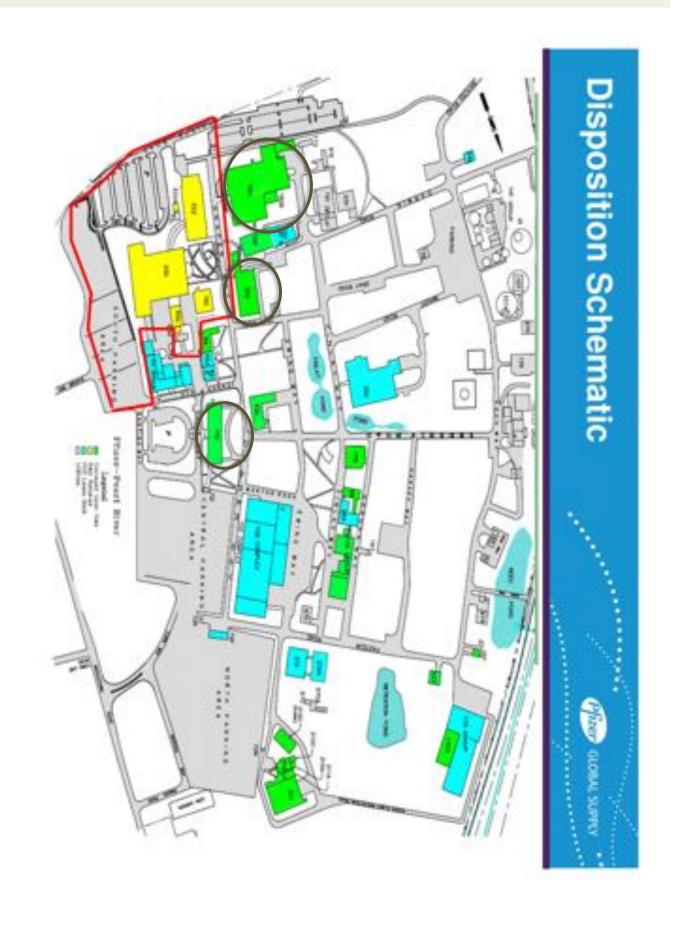
Their focus: Adaptive Reuse – industrial & commercial retail, office,

# Our Site for the Symposium

-Lower Hudson Valley-







-Lower Hudson Valley-

## **Building 180**

168,825 SF/1981





## **Building 205**

125,.652 SF/1991





-Lower Hudson Valley-

-158-

## Great facility for research, experience internships & workplace

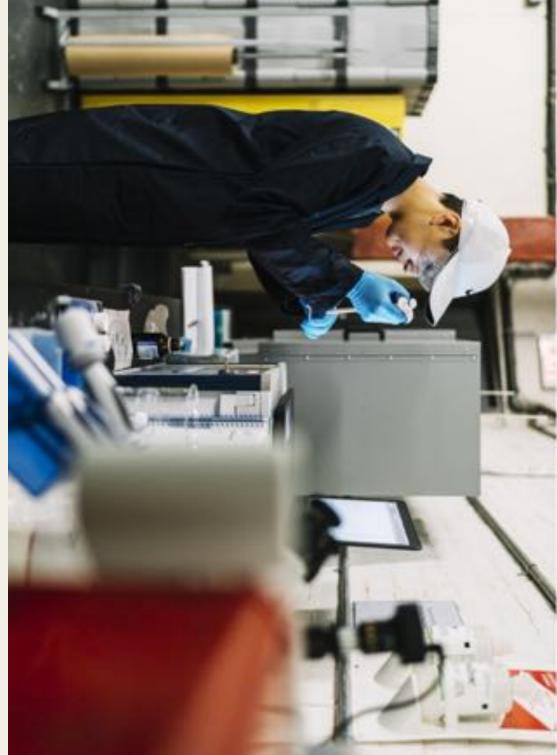


Image from Urban Electric Power



-160-

Pfizer GLOBAL SUPPL

Building

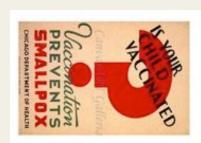
-Lower Hudson Valley-

# Pharmaceutical Accomplishments

-163-

- 1906 Diphtheria antitoxins
- 1915 Smallpox (1 million doses/week)
- $\omega$ 1941 — Typhoid Vaccine
- 4 1941-45 — Largest blood plasma plant in the world
- 5 First broad spectrum antibiotic – Aureomycin
- 6. 1954 – Polio vaccine
- head, and neck & arthritis - Methotrexate to treat cancer of the blood, bone, lung, breast,
- $\infty$ 1961 – TB Tine – tubercular skin test
- 9. 1971 – Minocin - antibiotic
- 10. 1978 Centrum - vitamin
- 11. 2000 -Prevnar 7, 13 and Mylotarg vaccines to prevent children under 5 yrs. the leading cause of vaccine preventable death worldwide in pneumococcal bacteria which leads to pneumococcal disease,
- 12. 2006 Tygacil antibiotic





## Building on site legacy

<u>--</u> diphtheria in the late 19th century and used this new location in Health Commissioner. During his tenure he curtailed the spread of Rockland to produce diphtheria antitoxins and other formulas for Chief Chemist of the NYC Department of Health, and twice NY 1906 - Ernest Lederle established the Lederle Antitoxin both humans animal use. Laboratories on 99 acres in Pearl River. Ernest Lederle was the

**Ernest Lederle** 

- 2 1930 became just Lederle Laboratories a division of the American manufacturing of antitoxins, vaccines, antibiotics, vitamins. Cyanamid Company, and became a leader of research, testing and
- $\dot{\omega}$ World War II was a major supplier of blood plasma
- 4 1994 became American Home Products (AHP) ~3000 employees
- 5 2002 AHP becomes Wyeth, who called it Wyeth-Lederle, then Wyeth-Ayerst.
- 9 2009 sold to Pfizer









-162





-Lower Hudson Valley

## **EXHIBIT 10**



October 16, 2017

Mr. Jeffrey Bezos Chairman, President & CEO Amazon 1200 12<sup>th</sup> Avenue South, Suite 1200 Seattle, WA 98144-2734

Dear Mr. Bezos:

As you have often noted, you built Amazon on three fundamental ideas, "Put the customer first. Invent. And, be patient." That is exactly the way we have grown the incredible business ecosystem here in the Hudson Valley, and why we believe this region is the perfect location for your second headquarters.

Located a short drive away from New York City, the Hudson Valley incorporates Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester counties. The region offers one of America's most vibrant business climates. From IBM to PepsiCo and from MasterCard to Regeneron, the Hudson Valley is the US and world headquarters' epicenter for numerous Fortune 500 companies – many of whom you have already established collaborative relationships with as part of your growing business. Imagine being only steps away from these companies, and evolving this mutually beneficial relationship? We sure can.

Additionally, the Hudson Valley harnesses a high concentration of colleges and universities, which graduate more than 20,000 skilled job seekers every year into an already existing pool of 1.2 million highly educated workers. The combination of better living and a vibrant economy makes the Hudson Valley a great place for many to call home, and Amazon will only enhance the many benefits of living, working and playing in this region.

On behalf of the millions of area residents, business owners, academicians and government officials we represent, HVEDC looks forward to welcoming you to the Hudson Valley.

Sincerely,

Laurence P. Gottlieb President & CEO



Lower Hudson Valley













10 Matthews Street • Goshen, NY 10924 • phone: 845.220.2244 • fax: 845.220.2247 • hvedc.com 📑 💟





 $\omega$ 

educational venues.

There are existing & commitments from businesses

on this site

at

retain. Potential new uses of shopping, dining, meeting spaces,

imagined with a focus on science, technology,

the

moment including:

**Protein Sciences** 

developing safer &

4

RCC

**Innovation Center** 

മ

combination technology incubator,

Business

applications. Safe, low cost

alternative to Lead-Acid

20

stationary energy storage

Lithium-ion batteries.

manganese dioxide batteries

Urban Electric Power - Manufactures rechargeable zinc

Anellotech –researching sustainable

bio-sourced chemicals

more effective vaccines

Start-Up NY campus, Super 3D Printing SMARTT lab

Innovation Mall with a group information

desk.

and

7

IRG

has purchased the

balance of the site which will be re

education and

undeveloped land.

development work on the site

will continue pharmaceutical manufacturing, research and

and will hold

onto

some

Pfizer will continue to own 25 acres,

3 buildings and 600 jobs.

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**Points** 

## **EXHIBIT 11**



**Dr. Marsha Gordon** President & CEO

800 Westchester Avenue Suite S-310 Rye Brook, NY 10573 p: 914.948.2110 f: 914.948.0122

October 16, 2017

Mr. George Oros
Director, Office of Economic Development
County of Westchester
148 Martine Avenue
White Plains, NY 10601

Dear Mr. Oros:

The Business Council of Westchester (BCW) the County largest business membership organization was proud to stand with County Executive Astorino to support Westchester County's proposal to select the future second headquarters of Amazon in Westchester. Our County is well suited to respond to Amazon's requirements which include multiple locations; an existing and future pipeline of talented workers, accessibility to New York City, Boston and other major areas along the northeast corridor.

The BCW's Board of Directors and our members stand ready and willing to provide expertise and support to the County and Amazon as this process continue. The BCW is laser focused on continuing to promote the strength and vitality of our great county. Urging Amazon to build their new headquarters in Westchester will be one of our top priorities.

The BCW wholeheartedly supports the county's efforts in making the case that Amazon should build their new headquarters in Westchester County. We readily join with our partners in government, education, business, and the civic community to work together with the County, the Empire State Development Corporation to bring Amazon to Westchester County.

Sincerely,

Marsha Gordon President/CEO



October 16, 2017

Mr. George Oros Director Economic Development County of Westchester 148 Martine Avenue White Plains, New York 10601

Dear Mr. Oros:

Please accept this letter as the Hudson Valley Gateway Chamber's full endorsement and support of Westchester County's proposal to make the future second headquarters of Amazon here in Westchester. Our county is well suited to respond to Amazon's requirements among them multiple locations; an existing and future pipeline of talented workers; accessibility to New York City, Boston and other areas along the northeast corridor.

Serving over 500 businesses and organizations in the Hudson Valley Gateway region, our Board and membership stand ready and willing to provide expertise and support to the county and Amazon.

The Hudson Valley is one of the country's top ten tourist destinations. Residents from all over Westchester County come here to enjoy boating, fishing, kayaking and other water sports on the historic Hudson River. Our region also is home to internationally known hiking and biking trails.

Our residents enjoy a quality of life, second to none. Top schools; affordable home prices; proximity to NYC; abundance of transportation options; shopping; dining; art and entertainment are why so many millennials from NYC have chosen to make this region their home.

Westchester County is the ideal location for Amazon's second headquarters and the Hudson Valley Gateway Chamber of Commerce wholeheartedly supports the County's efforts to attract Amazon here. We readily join with our partners in government, education, business and the civic community to work together with the County, Empire State Development Corporation and the State to bring Amazon to Westchester.

Sincerely,

Deborah Milone Executive Director

Hudson Valley Gateway Chamber of Commerce • One South Division Street • Peekskill, New York 10566 • 914-737-3600 • www.hvgatewaychamber.com

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WILLIAM M. MOONEY, JR. President

ACCESS. ADVOCACY. Westchester County Association ACTION.

October 16, 2017

Mr. George Oros Director Economic Development County of Westchester 148 Martine Avenue White Plains, New York 10601

Dear Mr. Oros:

Please accept this letter as the Westchester County Association full endorsement and support of Westchester County's proposal to make the future second headquarters of Amazon here in Westchester. Our county is well suited to respond to Amazon's requirements among them multiple locations; an existing and future pipeline of talented workers; accessibility to New York City, Boston and other areas along the northeast corridor.

As the region's preeminent economic development and business membership organization, our Board and membership stand ready and willing to provide expertise and support to the county and Amazon. We can offer to Amazon a vast array of economic development programs, such as customized training and a robust talent pipeline as well as access to key business leaders and officials.

Westchester County is the ideal location for Amazon's second headquarters and the Westchester County Association wholeheartedly supports the County's efforts to attract Amazon here. We readily join with our partners in government, education, business and the civic community to work together with the County, Empire State Development Corporation and the State to bring Amazon to Westchester.

Sincerely,

-168-

Wale Williamy

1133 Westchester Avenue | Suite S-217 | White Plains, NY 10604 | www.westchester.org | 914.948.3671 tel | 914.948.6913 fax





State University of New York

Dr. Belinda S. Miles, President

October 6, 2017

Mr. George Oros
Director of Economic Development
148 Martine Avenue
White Plains, New York 10601

Dear Mr. Oros:

Please accept this letter as Westchester Community College's full endorsement of Westchester County's proposal as the future home of Amazon's second corporate headquarters. Our county is very well suited to respond to Amazon's requirements, among them, multiple locations from which to choose; an existing and future pipeline of talented workforce; ease of accessibility, and; a vibrant quality of life.

As part of the State University of New York (SUNY) system and the largest higher education provider in the region, Westchester Community College is well positioned to support the training and education needs of current and future Amazon employees and their families. Our main campus in Valhalla, along with our five extension centers located in Peekskill, Ossining, White Plains, Mount Vernon and Yonkers make education accessible to all county residents.

Westchester Community College offers degree programs and workforce training that prepare students with twenty-first century skills. These are the skills that high-tech, high-performing organizations need. Examples of our certificate and degree programs that prepare students for the employment opportunities referenced in Amazon's Request for Proposal include:

- Accounting
- Business Management
- Computer Information Systems
- Computer Science
- Cybersecurity
- Engineering Science and Technologies
- Office Technology

75 Grasslands Road, Valhalla, NY 10595

phone 914-606-6707 email belinda.miles@sunywcc.edu

Westchester Community College is sponsored by the County of Westchester; affiliated with the State University of New York



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Mr. George Oros Director of Economic Development October 6, 2017 Page 2

- Paralegal Studies
- Web Development

Students seeking four year and graduate degrees get a strong start in any one of over 200 transfer pathways that guarantee junior status at colleges and universities in the region.

Moreover, Westchester Community College has a strong record of accomplishment supporting the business needs of employers throughout the county. Our Professional Development Center provides a wide range of customized employee training and training-related services on our campus or at the work site. Past and current clients include a biotechnology firm, healthcare groups and major hospital centers, as well as library systems and other nonprofits.

The College is well represented by the President and Cabinet members on boards and committees of the Westchester Putnam Workforce Development Board, the Business Council of Westchester and the Westchester County Association. As such, we contribute to industry specific training initiatives that drive the economic vitality of the county and its residents. As a member of the Hudson Valley Education Consortium (HVEC), along with five other SUNY community colleges we have the capacity to respond quickly and effectively to the everchanging demands of our region's business community with programs that support middle skill career opportunities as well as pre-professional academic pathways.

Westchester County is an ideal location for Amazon's second corporate headquarters. Westchester Community College stands ready to join our partners in government, education, business and the community to contribute to an environment of growth and innovation - the continued success of Amazon and of our county.

Varm regards,

Belinda S. Miles, Ed.D.

President

:tw

75 Grasslands Road, Valhalla, NY 10595 phone 914-606-6707 fax 914-606-6780 cmail belinda.miles@sunywcc.edu

Westchester Community College is sponsored by the County of Westchester; affiliated with the State University of New York

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## Building & Realty Institute of Westchester & The Mid-Hudson Region (BRI)\*

80 Business Park Drive • Suite 309 • Armonk, NY 10504 • Tel: (914) 273-0730 • Fax: (914) 273-7 www.buildingandrealtyinstitute.org

October 16, 2017

The Honorable Robert P. Astorino Westchester County Executive

Mr. George Oros Director Economic Development County of Westchester

900 Michaelian Office Building 148 Martine Avenue White Plains, New York 10601

Honorable Gentlemen:

The Building & Realty Institute of Westchester (BRI) expresses its full and unconditional support for-- and endorsement of -- your proposal to make the future second headquarters of Amazon here in Westchester.

The Builders Institute is the largest construction and realty industry association in the county. We count among our membership many of the largest Commercial / Office Building Owners and Developers in Westchester. We can offer you, as the official Economic Development representative of our County Government, a number of experts—on a pro-bono basis—in land use planning, zoning, and commercial construction, among others. These are services that might be useful as part of a comprehensive presentation to Amazon.

In this and other ways, The BRI stands ready to help with our partners in government, education, business and the civic community to work together with you, the Empire State Development Corporation and the State to bring Amazon to Westchester. Amazon and Westchester, a perfect combination!

Sincerely,

Albert A. Annungiata
Albert A. Annunziata
Executive Director



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<sup>\*</sup> Also known and operating as The Builders Institute, Inc.



October 16, 2017

Mr. George Oros Director Economic Development County of Westchester 148 Martine Avenue White Plains, New York 10601

Dear Mr. Oros:

Pace University fully supports Westchester County's proposal to make the future second headquarters of Amazon here in Westchester County. Westchester County is the ideal location for Amazon's second headquarters and Pace University wholeheartedly supports the County's efforts to attract Amazon here. We enthusiastically join with our partners in government, education, business and the civic community in this endeavor.

Our county is well-suited to respond to Amazon's requirements, among them a future pipeline of talented workers supported by Westchester's strong ecosystem of institutions of higher education. Pace University is proud of our students, many of whom are first in their family to go to college, who are pursuing bachelor's, master's, and doctoral, and law degrees at Pace University's campuses in the Village of Pleasantville and in the City of White Plains. We stand willing and able to work collaboratively with the Westchester County Office of Economic Development, and Amazon, to ensure that Pace University's curriculum will meet Amazon's future and continued need.

Sincerely,

Vanessa J. Herman Assistant Vice President Pace University

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October 16, 2017

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

Dear Site Manager Golden:

There is no better place than Rockland County, New York for Amazon's second global headquarters. The Rockland Business Association (RBA) totally supports the County's proposal for Amazon to set up shop here. Favorably located along the stunning Hudson River within 30 minutes of NYC between Hartford and Philadelphia, Rockland is positioned perfectly to welcome what will undoubtedly be in the vanguard of corporate campuses.

The RBA, this year, is celebrating 50 years of service to the community in the areas of public policy, advocacy and economic development. We are responsible for the creation of the County Executive form of government and the Industrial Development Agency. Also, we are responsible for Exit 14B of the NYS Thruway and ours was the leading voice for the replacement of the failing Tappan Zee Bridge. Personally, I am privileged to serve as Governor Andrew Cuomo's Rockland appointee on the Mid-Hudson Regional Economic Development Council.

With a committed resource team, nationally recognized colleges and educational institutions, and innovating medical centers, Rockland County presents a unified front for business by collaborating with them alongside local, regional, state and federal agency partners in order to provide an array of seamless and progressive services.

A talented, diverse workforce comprising half of Rockland's 327,000 population; a sophisticated logistical infrastructure as home to several data centers; and unparalleled natural and cultural attractions complete the picture as to how Rockland can meet the most demanding personal and professional needs.

One Blue Hill Plaza / P.O. Box 1567 Pearl River, NY 10965 tel: 845.735.2100 / fax: 845.735.2482 www.rocklandbusiness.org

ROCKLAND/BUSINESS/ASSOCIATION/INC



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-2-

Whether corporate, entrepreneurial, social and/or cultural, everyone can find their niche in Rockland, and that includes Amazon with a capital "A."



One Blue Hill Plaza P.O. Box 1575 Pearl River, NY 10965 Ph: 845.735.7040 www.redc.org

Hon. Edwin J. Day \* **Rockland County Executive** & Chief Economic Officer

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James B. Tully Vice Chair/Secretary

Steven M. Yassky Vice Chair

Quinton C. Van Wynen, Jr.

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October 16, 2017

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

Dear Site Manager Golden:

There is no better place than Rockland County, New York for Amazon's second global headquarters. Rockland Economic Development Corporation (REDC) totally supports Rockland County's proposal for Amazon to set up shop in Rockland. Favorably located along the stunning Hudson River within 30 minutes of NYC between Hartford and Philadelphia, Rockland is positioned perfectly to welcome what will undoubtedly be in the vanguard of corporate campuses.

REDC, as the coordinating catalyst for economic development in the county, has assisted hundreds of companies and non-profits over the past 30 years with successful relocation and expansion efforts so they could "Make it in Rockland."

With a committed resource team, nationally recognized colleges and educational institutions, and innovating medical centers, Rockland County presents a unified front for business by collaborating with them alongside local, regional, state and federal agency partners in order to provide an array of seamless and progressive services.

A robust workforce comprising half of Rockland's 327,000 population; a sophisticated logistical infrastructure as home to several data centers; and unparalleled natural and cultural attractions complete the picture as to how Rockland can meet the most demanding personal and professional needs.

Whether corporate, entrepreneurial, social and/or cultural, everyone can find their niche in Rockland, and that includes Amazon with a capital "A."

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## APPENDIX



NEW YORK METRO AREA AMAZON HQ2 RFP RESPONSE

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