

Building a Vibrant Manufacturing Sector

A Blueprint for New York City

Summary:

A new consensus has emerged that a vibrant manufacturing sector is critical to our nation's efforts to strengthen and expand the middle class and to maintain our economic competitiveness. The national agenda, however, actually depends on cities to provide the space, invest in the infrastructure and educate the workforce needed for the manufacturing sector to thrive and create quality jobs. In New York City, any comprehensive strategy to diversify the city's economic base and create manufacturing jobs must both capitalize on the city's competitive advantages and address the challenges that manufacturers face in not only starting up but in growing their businesses here. Contained within are recommendations for how the City of New York can enact policies to accomplish this.

Background:

Cities across the country, big and small, low-cost and high-cost, have increased their efforts to expand their manufacturing sector in recognition of the importance of the sector's economic, environmental and social benefits. A healthy, vibrant manufacturing sector is critical to the economic wellbeing of New York City and a comprehensive strategy is needed to support one.

High-cost cities such as San Francisco, Los Angeles and Chicago, are now engaged in developing new tools to support their manufacturing sectors and to capitalize on both the federal interest in manufacturing and shifts in global economics that are leading companies to expand domestic production. In such places, a common strategy is to focus on high value-added products that create high-wage jobs; such products capitalize on the wealth of engineering and design talent that is concentrated in cities and the sophistication of both consumer and business markets.

These high tech/high touch strategies recognize that manufacturing has evolved dramatically over the past two decades - that much of today's manufacturing is actually part of the "knowledge economy." Manufacturers still produce a physical product so they still have certain building, transportation and land use requirements, but many produce their products using technologies that barely existed just a decade ago.

While economists regularly report on the demise of manufacturing in New York City, and at the same time trumpet the growth of tech, design, entertainment and media, and arts and culture, the fact is that many of the companies in these sectors are doing some manufacturing. Lines between sectors are rapidly blurring, driven by technological advances that shrink the size of manufacturing equipment and make that equipment easier to use. 3-D printers, other additive equipment, and Computer Numerical Control (CNC) machines are making small batch and niche manufacturing ever more affordable and accessible.

No city in the United States approaches the depth and breadth of New York's market or its creative assets. These vast resources include existing clusters in food, fashion, furnishing, film, entertainment, the arts and construction as well as nationally renowned educational institutions such as FIT, Parsons, Pratt Institute, Cooper Union, NYU Poly, Columbia, SVA, and soon, the Cornell/Techion Innovation Institute and NYC Center for Urban Science and Progress. The Bloomberg Administration has devoted considerable attention to helping emerging entrepreneurs launch new business ventures by supporting business incubators, mentorship and entrepreneurial training programs (often accompanied by small grants for the most business-worthy graduates) and a public relations campaign that promotes the entrepreneurial talent and energy of New York City.

While New York is in many ways a great business incubator, to realize its potential to create quality jobs that allow for social mobility, the city must also establish itself as a great place not only for starting but for growing a manufacturing business. Capitalizing on these resources and growing our manufacturing sector requires three things: 1) Space for production; 2) Economic development services that strengthen the relationships between manufacturers, markets, and the financial and intellectual resources that generate new products, as well as residents who need employment opportunities; and 3) A 21st Century infrastructure that facilitates the environmentally sustainable distribution and production of goods.

1. Land-use and Zoning For Jobs

Land use policies play a critical role in sustaining and expanding manufacturing jobs. Land-use stability provides manufacturers with the security they need to reinvest in new equipment and job training and to undertake energy efficiency upgrades and other sustainable practices. It also enables firms to build relationships with neighboring residential communities to better provide local employment opportunities. Real estate speculation both drives up costs and deters investment, triggering a downward spiral of disinvestment and disengagement.

The current mayoral administration has used zoning and other land-use and financing tools to stimulate the creation of affordable housing. These tools were made more effective because the non-profit housing development sector, which grew out of the affordable housing movement and developed over decades, had the capacity and mission to capitalize on these opportunities. That capacity includes experience in developing and managing affordable housing, and the ability to form partnerships with market-rate developers. The next administration can build on this collaborative model by strengthening the capacity of non-profits in economic and community development to build and manage affordable commercial and light industrial space to support the city's burgeoning innovation economy.

Superstorm Sandy added a special urgency to this challenge. Much of today's most desirable manufacturing space is concentrated along the waterfront and is therefore vulnerable to storm surges. Both business and building owners in those areas need to make investment decisions about whether or not to rebuild or to relocate. Uncertainty about future rezonings inhibits those investments and leads to "planners' blight" where landowners delay needed investment in hope of a zoning change. In addition, because of limited affordable in-city alternatives, once a company begins to explore its relocation options, the risk that it will leave New York City is high.

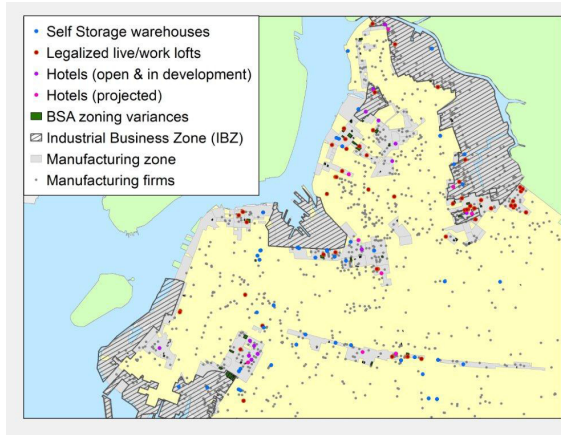
The City can promote the real estate stability that leads to business growth and job creation in a variety of ways, depending on the particular conditions in a neighborhood and the needs of the manufacturers. There is no single land-use strategy to create jobs because of the extraordinary diversity of both the sector and the city. The sector's needs for space range from areas as small as 400 or 500 square feet, to contiguous areas of 50,000 to 100,000 square feet. They also vary in their zoning needs. Some uses are best located in homogeneously industrial areas where manufacturing operations are insulated from conflicts with residents and/or other incompatible uses, while others need mixed-use districts where the synergy stimulates creativity and growth. The City needs a full land-use toolbox, not just the blunt and ineffective tool of our 1961 zoning. The most critical new land-use tools should include:

1.1 Industrial Employment Districts to stabilize areas with the densest concentrations of manufacturing jobs and to encourage investment and job creation

Currently many non-industrial uses such as hotels, offices, nightlife and adult entertainment uses, self-storage and big box stores are permitted as-of-right in the City's manufacturing zones. Their presence triggers much of the real estate speculation which undermines business growth and job creation. The City should create

Industrial Employment Districts in areas that are overwhelmingly industrial such as the current Industrial Business Zones. In an Industrial Employment District, non-industrial uses would either be completely excluded or be allowed by special permit (approved by the City Planning Commission and appealable to the City Council) that would require a demonstration that the use would not displace industrial jobs or trigger additional conversion pressures. In addition, a manufacturing business-appropriate regulatory framework policy (discussed below) should apply to these districts to reduce the burden of unnecessary regulations which do not protect health and safety but often undermine the City's economic development efforts. Finally, real estate pressure that leads to displacement is intensified by City policy to base real estate tax assessments on an assumption of "highest and best use" in industrial areas; i.e. assessments that impute a higher value to the property based on a hypothetical retail or office use when in fact the property is used for manufacturing. At least in the Industrial Employment Districts, if not in all manufacturing zones, a credit or rebate should be offered to owners of property that is actually used for industry that would lower their effective rate to a level reflecting their property's value for manufacturing rather than other commercial use.

Encroaching Uses On or Near M - Zoned Land, North Brooklyn



NYC Dept. of City Planning (zoning, charter schools), Board of Standards and Appeals (variance data retrieved July 2012), Google Earth (self-storage data retrieved July 2012), NYC Loft Board (data retrieved July 2012), Pratt Center (hotel data retrieved 2011), RefUSA (firm data retrieved September 2012; excludes Brooklyn Navy Yard firms)

1.2 Mixed-Use Innovation Districts to Maintain a Balance of Residential, Commercial and Manufacturing Spaces

While many manufacturers may seek large spaces in a lower-cost, more homogenous environment like an Industrial Employment District, many others may prefer to be close to their customers, work with different types of businesses, and have the amenities of a residential/commercial neighborhood. For certain manufacturing sectors, a diversity of uses and spaces often stimulates innovation, and the development of new products and markets. The current "MX" zoning designation technically accommodates a mix of uses, but because it permits as-of-right conversion from manufacturing to other uses, it often leads to rapid residential conversion. A stable, mixed-use Innovation District would require that a percentage of the space in each building or the district as a whole be dedicated to manufacturing. But enforcing such provisions can be challenging because of the scarcity of building inspectors, hesitation to evict illegal residential tenants, difficulty gaining access to private spaces in order to perform an inspection, inadequate financial penalties to deter illegal conversions, and complicated property ownership structures which prevent collection of penalties. A potential mechanism for ensuring compliance with the balance of uses would be to create an incentive to transfer ownership of the dedicated manufacturing space in such a district to a non-profit organization committed to industrial job creation which might own or manage the space. Mission-driven non-profit ownership and/or management would also serve additional policy goals discussed below. A flexible mechanism for ensuring the balance of uses would allow building owners to satisfy their obligation to dedicate manufacturing space either in their own buildings or through a development rights transfer. This mechanism would allow another building in the district to dedicate more than its required manufacturing space in exchange for a payment from the owner who has an insufficient amount of manufacturing space.

The Industrial Business Zone designation sounds like zoning but is not. An IBZ is an area for which the current administration has said it will not initiate a residential zoning change. It does not add any legal protection for manufacturers and even the administration's commitment could be changed without public review.

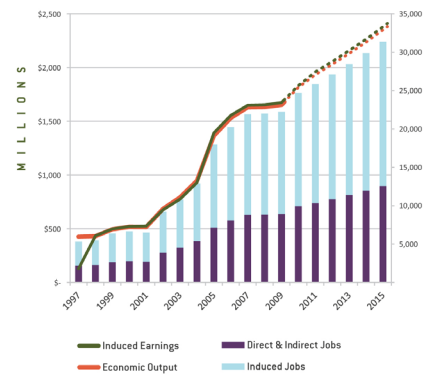
1.3 Industrial Retention and Relocation Fund to support replacement space and help displaced companies

Such a Fund would recapture some of the windfall that is created for landowners when a manufacturing area is rezoned to residential and would use the revenue to mitigate the negative impacts of that rezoning. Costs for relocating, and for developing and rehabilitating industrial space would be eligible to be subsidized through the Fund. In an earlier version of the Zoning Resolution, New York City has an historical precedent for contributions derived from a formula based on the amount square footage converted. Contributions were collected for nearly two decades and used to assist almost 130 companies. The original conduit for contributions, the Business Relocation Assistance Corporation (BRAC), still operates and could easily be the structure for disbursement.

1.4 Non-profit industrial development initiative to ensure high quality affordable space

The success of the Greenpoint Manufacturing and Design Center (GMDC) and the Brooklyn Navy Yard Development Corporation (BNY) demonstrate the potential for non-profit organizations to address a critical component in the City's economic growth strategy. Both GMDC and BNY have a triple bottom line mission that guides investment, leasing, and programmatic decisions such that they achieve fiscal responsibility while creating jobs and increasing the environmental sustainability of their operations. A recent study of the Brooklyn Navy Yard found that the number of jobs generated by the Yard and its economic impact on the City increased by approximately 400% over a ten year period. The study found that BNY's success derived from pursuing its mission-based commitment through providing stable affordable space, investing in green infrastructure, accessing City and State incentives and including job creation potential in tenant selection. Other organizations such as the East Williamsburg Valley Industrial Development Corporation (EWIDCO) are moving to replicate the non-profit management model but are challenged by their lack of equity or risk capital to finance their initiatives.

Annual (Ongoing) Economic Impact of the Brooklyn Navy Yard



The City can build on this success of BNY and GMDC by:

A. Giving non-profit organizations committed to industrial development a preference in the sale or lease of City-owned space. The non-profit might partner with a for-profit developer to help build equity and experience or might be an independent bidder.

B. Creating a not-for-profit Industrial Development Fund to provide recoverable grants to non-profits for pre-development costs. Initial funding might come from city capital funding and the proceeds from conversion fees held in the Industrial Retention and Relocation Fund. The US Economic Development Administration has also expressed an interest in this initiative.

C. Exploring whether additional City-owned industrial space from the Brooklyn Army Terminal, Bush Terminal and elsewhere should be managed by independent non-profit organizations.

This would not only improve management of the industrial properties, but allow for a more strategic and comprehensive development strategy that fosters particular industrial clusters, targets areas for specific market segments, and increases the leverage of private funds for industrial development by dedicating rent

revenues so that they can be bonded out to finance capital improvements.

1.5 Reform The Board Of Standards And Appeals

Lenient interpretation of the required findings for a Board of Standards and Appeals (BSA) variance has essentially allowed real estate owners to skirt zoning, avoid community consultation and insulate themselves from poor business decisions such as the purchase of property at inflated, speculative prices. Numerous studies have pointed to the need for reform to tighten the interpretations to prevent owners from claiming financial hardships for recently purchased properties or claiming physical hardship based on zoning or physical conditions that existed at the time of purchase. While a more rigorous standard has recently been applied, under the next administration that reform could be reversed if more formal interpretative guidelines are not adopted. The BSA, Law Department, Economic Development Corporation and Department of City Planning should assess the current standards and practice and develop new guidelines for BSA decisions.

2. Improving Business Services for Manufacturers

The network of Local Development Corporations (LDCs) which provides services in manufacturing areas plays a vital role in the city's growth and job creation strategy, and presents an opportunity to further improve the competitiveness of the city's manufacturers. Funding for the LDCs should be increased in order to allow them to expand their functions to include industrial real estate development (discussed above) and to capitalize on unique opportunities in their communities to foster growth by supporting sustainable business practices.

The LDCs currently help companies to address issues that arise in their daily operations and as they seek to grow. Their functions include helping companies to find space and to access City and State benefits, connecting local residents to industrial employment opportunities, and troubleshooting problems and educating businesses about municipal services. However, the City's commitment to fund these services ebbs and flows, and is especially vulnerable to the volatility of the annual budget process. Originally excluded from the FY 2014 budget entirely, after an aggressive advocacy campaign, funding was allocated in the amount of \$1.1 million, an austere level compared to the original \$3.8 million of just a few years ago. This financial uncertainty not only distracts LDCs from their mission to provide core services, it undermines their ability to launch new initiatives and capitalize on the particular competitive advantages of their neighborhoods. For example, Sunset Park will be the site of a new recycling transfer facility which could create materials for new products and give rise to a green industry. But without adequate funding, the potential synergy may very well not be realized. Nor do the LDCs have the capacity to develop collaborative projects such as the Navy Yard's recent pilot to aggregate the waste of all the small tenants in one building and bid out the waste hauling and recycling contracts together. Innovative projects like this result in both reduced costs for the companies and reduced truck traffic for the neighborhood.

New York City government touches virtually every manufacturing business in countless ways, from traffic and sanitation tickets to fire and building inspections to the award of government procurement contracts and financing the acquisition of real estate and equipment. Parts of this regulatory framework are essential to protect health and safety, but others are unnecessary and ill-suited for the particular nature of manufacturing businesses. The latter type increase the cost of doing business in an already expensive environment and send a message that manufacturing is not welcome in New York City. The need to incorporate this business perspective across the spectrum of services and regulations cannot be overstated.

To improve the delivery of City services, the City should:

2.1 Reinstitute the Mayor's Office of Industrial And Manufacturing Businesses. Manufacturers need a powerful advocate focused on their unique needs. This advocate needs to directly participate in City Hall policy discussions and be a direct report to the Deputy Mayor of Economic Development. S/he should be able to coordinate the vast array of municipal services that impact on manufacturers' operations, from planning of truck routes and land-use to enforcement by the Departments of Sanitation, Fire, Consumer Affairs and Buildings.

2.2 Provide sufficient core financial support necessary to maintain adequate levels of ombudsmen services. The City should develop a formula to approximate the level of need in an area based on factors such as the amount of built industrial space, number of companies, acreage, etc. Given the history of fluctuating annual support, the formula would be used to suggest funding levels.

2.3 Explore restructuring of the Industrial Business Improvement District program to include greater tenant participation in decision-making and create an additional funding source. While a BID-like mechanism can be an important vehicle for creating dedicated revenues and enhancing services in an industrial area, the existing BID program would need to be modified in at least two important ways. First, the current BID governance configuration results in property owners dominating BID boards, which can lead to conflicting goals with industrial tenants. The City should support industrial BIDs with alternative governance structures that ensure that the BIDs' missions further industrial development and job creation. Second, BIDs are meant to augment City services but are not intended or legally allowed to replace them. Yet as presently structured, industrial BIDs seem to be an effort to relieve the City of its current obligation to provide economic development services and to generate private, self-supporting revenue streams to perform a public service. There should be some maintenance of effort requirements incorporated into the Industrial BID program.

2.4 Generate a regulatory framework in the IBZs and other dense industrial areas that is protective of health and safety and appropriate for manufacturing and industrial Businesses. Much of the regulatory framework in which industrial businesses must operate was designed for more residential areas or for different types of commercial activities. Without jeopardizing the health and safety of workers or nearby residents, different standards for certain activities could apply in industrial areas. Examples include allowing businesses to put out their garbage for collection earlier in the day because the businesses tend to close earlier, allowing sidewalk sheds, and allowing trucks parked in loading docks to jut out across the sidewalk if a pedestrian right of way is maintained on the opposite side of the street. The generation of this framework would be an opportunity to better assess manufacturers' needs and would reduce the negative impact of inappropriate ticketing and regulations. It could also create an opportunity for businesses and residents in adjacent communities to better understand and accommodate each others' needs and identify win/win solutions. This is especially important where industrial areas abut Environmental Justice communities, and residents are exposed to multiple burdens from other infrastructure and land uses such as highways and power plants.

2.5 Revise and Expand the Department of Small Business Services' Avenue NYC program to fund LDCs seeking to encourage creative, neighborhood-specific projects that reduce costs, expand markets and otherwise improve the competitiveness of manufacturing firms.

2.6 Launch a Design Extension Services program to link local designers with local manufacturers to capitalize on the city's extraordinary wealth of design talent and to improve the environmental performance of firms and their products. Preliminary Pratt studies have found that manufacturing firms which adopt sustainable business strategies are more likely to show increased sales than manufacturers who do not. The proposed

extension services would promote local sourcing, encourage the use of recycled materials and reduce the use of hazardous materials and wasteful packaging.

2.7 Support the Made In NYC local branding campaign. Consumers increasingly want to purchase from local manufacturers to support their local economies, to try to reduce their carbon footprint and to express regional aesthetics. Cities across the country are developing local branding campaigns to capitalize on this shift. Locally, the Made In NYC campaign now includes more than 1,000 local manufacturers from every sector and borough and merits mayoral financial support. The City has aggressively supported its film industry through the Made In NY initiative which includes a marketing campaign, tax credits and an ombudsmen office at the Mayoral level to expedite City permits and coordinate City services. Now being expanded to serve other media businesses, there is no reason why Made In NYC could not receive a similar level of support.

2.8 Increase procurement from Locally Based Enterprise (LBE) manufacturers. The City should increase its use of locally made products, particularly in construction projects, by expanding the eligibility and scope of the LBE program which currently caps project and company size.

2.9 Increase resident employment through workforce development and expanded placement services. Creating well-paying jobs and increasing resident employment are two of the highest priorities of the policy recommendations put forward by this document; as such the ability of a project to accomplish these priorities should be a litmus test for virtually every economic development effort. This Administration has already taken some steps to better integrate economic development and resident employment through initiatives including HireNYC and to better align the City's high school and college preparation with the needs of growing economic sectors. This should continue. The manufacturing sector poses some particular challenges because of its diversity, its composition of overwhelmingly small firms, and a strong preference by business owners to do their own vocational training. Brooklyn Workforce Initiative (BWI), a non-profit workforce development organization, has been particularly successful in working with this sector by building strong relationships with owners, and should be replicated. In addition, the City should explore with New York State how to create "on the job" training programs that will allow the type of idiosyncratic training that owners prefer.

3. Building A Robust and Resilient 21st Century Infrastructure

Infrastructure that meets the needs of today's manufacturing sector is essential to sustain and increase the city's competitiveness. Merely maintaining the City's existing infrastructure which was designed before the internet, and before energy costs began to rise, is not adequate to support growth and resiliency. To be competitive, the City should:

3.1 Preserve a working waterfront with maritime infrastructure in order to support necessary industrial uses, environmentally sound transport of goods, transit and manufacturing jobs. Much of the City's rezoning of manufacturing lands has been along the waterfront, limiting locations for essential waterfront infrastructure. Existing infrastructure such as docks, bulkheads, and facilities for ship repair should be preserved and invested in. Construction materials, fuel oil and other necessities continue to be moved most effectively by water from both a cost and an environmental perspective. Growing demand for ferry service and cruise ships as well as basic maintenance of the bridges, highways and existing waterfront uses necessitates a working waterfront to support that infrastructure.

While Made In NYC (for manufactured products) sounds similar to Made In NY (for media) the campaigns have very different audiences, different visuals and graphics, and ultimately different missions, and should be kept distinct though coordinated.

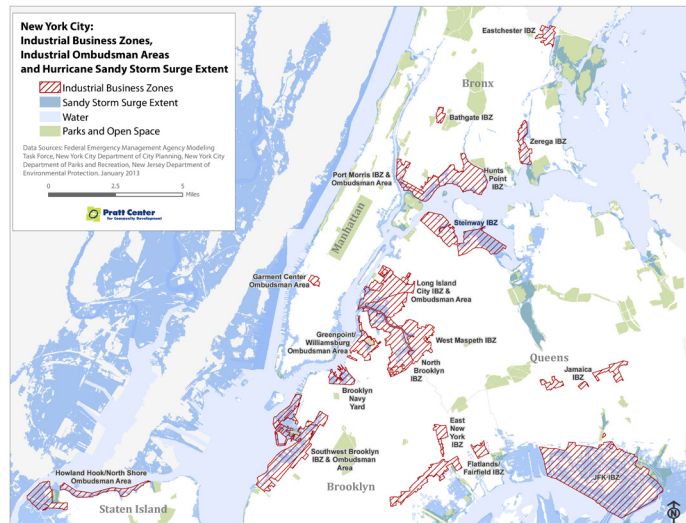
3.2 Prioritize resiliency for waterfront industrial areas to ensure their long-term viability and protect surrounding communities.

New York City's Waterfront Revitalization Program designates six Significant Maritime Industrial Areas (SMIAs) where water-dependent industries and maritime infrastructure have historically been concentrated. All six SMIAs are located in surge zones; Superstorm Sandy demonstrated the increasing vulnerability of many of these areas to storm surge and sea level rise resulting from climate change. Manufacturers on the East River waterfronts of Brooklyn and Queens were particularly hard hit. Damage to equipment and inventory

cost many of these firms millions of dollars and months of lost production. In addition, hazardous materials from ongoing operations, and soil contamination from past uses, pose a threat to workers and nearby residents during floods, an issue raised and documented by the [New York City Environmental Justice Alliance's Waterfront Justice Project](#) as the most recent revision to the Waterfront Revitalization Program was being drafted.

We need to address hazards posed by ongoing open industrial uses as well as legacy contamination on brownfield sites, and to incentivize manufacturers to undertake resiliency measures to protect their plants and their workers as well as neighboring communities. These may include elevating critical equipment and buildings, and eliminating the use of toxic materials from production processes.

Superstorm Sandy Surge and Industrial Business Zones



3.3 Invest in cross harbor goods movement infrastructure that provides an alternative to truck transport. With cross harbor freight demand projected to grow 70% by 2030, the region simply cannot accommodate the growing market with its current at-capacity roadway system. Economic growth and environmental sustainability demand greater cross harbor barge and freight rail capacity. This infrastructure also supports jobs in warehousing and value-added manufacturing that arise from land-use synergies.

3.4 Assure digital connectivity. Modern manufacturing, particularly the high-value added, design-oriented production that is most likely to grow and to pay well, depends on connectivity and the ability to move large amounts of data from design concept to production. Internet speed and reliability in many of the city's manufacturing areas is poor. The City should use its franchising and regulatory authority over telecommunications providers to assure connectivity in its industrial areas as it does in other residential and business districts.

3.5 Improve transit access to the city's outlying employment centers and reduce commute times. The difficulty of reaching many industrial areas by public transit, particularly for workers who have to commute between boroughs, limits opportunity for potential workers and hiring options for employers. Bus Rapid Transit is a transit mode well-suited to connecting dispersed residential communities and remotely located industrial areas and is the most cost-effective, flexible and easiest to implement approach to increasing this access. The City should accelerate the planning and implementation of a citywide Select Bus Service network, and prioritize new routes connecting underserved job destinations.

3.6 Undertake planning studies for the infrastructure of the industrial areas and implement improvements. Much of the roadway, the sewer, and utility infrastructure in the industrial areas has long passed its original

intended useful life, and needs to be replaced. These studies should be combined with the resiliency planning that the impacts of Superstorm Sandy have shown to be urgently needed and devote special attention to reduce or eliminate the risk of hazardous materials being released into the environment.

Conclusion:

Tremendous forces are reshaping the global economy. Rising labor costs abroad, increasing transportation costs worldwide, the commercialization of new technologies which make “small batch” manufacturing more feasible, the growth of knowledge-based manufacturing and the concomitant demand for a more highly educated industrial workforce, and shifting consumer preferences are all changing the economics of how businesses make locational decisions. These changes bode well for cities as the cradles of our country’s 21st century manufacturing renaissance.

New York City has the opportunity to leverage its wealth of design talent, the size of its market and the entrepreneurial energy of its extraordinarily diverse population to catalyze growth in its manufacturing sector. This must start with recognition that while today’s manufacturing is part of the ‘knowledge’ economy, it has unique qualities that distinguish it from its counterparts, and that land-use, economic development services and infrastructure policies must accommodate those differences. If government policies recognize these differences and build on the city’s advantages, then the manufacturing sector can help create the jobs and wealth that will sustain our city into the 21st Century.