UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

New York Independent System Operator, Inc.	**)** **)** **)**	**Docket No. ER21-502-000**

PROTEST AND SUPPORTING COMMENTS OF
INDEPENDENT POWER PRODUCERS OF NEW YORK, INC.

On November 30, 2020, the New York Independent System Operator, Inc. ("NYISO") filed, pursuant to Section 205 of the Federal Power Act, proposed tariff revisions to its Market Administration and Control Area Services Tariff ("Services Tariff"), which define new installed capacity ("ICAP") Demand Curves applicable for the 2021/2022 Capability Year and proposed the inputs and parameters for conducting the annual updates to determine the ICAP Demand Curves for the 2022/2023, 2023/2024, and 2024/2025 Capability Years, with the Federal Energy Regulatory Commission ("Commission") in the above-captioned docket.[1] Pursuant to Rule 211 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.211, and the Commission's Combined Notice of Filings #1, issued on November 30, 2020, Independent Power Producers of New York, Inc. ("IPPNY")[2] hereby protests, and comments on, the NYISO Filing.

I. BACKGROUND AND EXECUTIVE SUMMARY

On May 20, 2003, the Commission first approved ICAP Demand Curves for the NYISO ICAP market to replace a critically flawed capacity market structure that had led to severely

[1] Docket No. ER21-502-000, *New York Independent System Operator, Inc*., 2021-2025 ICAP Demand Curve Reset Proposal (Nov. 30, 2020) ("NYISO Filing").

[2] IPPNY is a not-for-profit trade association representing the independent power industry in New York State. Its members include companies involved in the development and operation of electric generating facilities and the marketing and sale of electric power in New York. IPPNY's members include suppliers and marketers that participate in the NYISO's energy and capacity markets. IPPNY filed a doc-less motion to intervene in this docket on December 10, 2020.

depressed ICAP market clearing prices.[3] As the Commission has explained in previous orders addressing the NYISO's ICAP Demand Curves, the Demand Curves are derived by calculating the cost of new peaking generation—*i.e.*, the cost of new entry or "CONE"—and netting from this cost the projected net revenues the generator is expected to earn in the energy and ancillary services ("EAS") market at the defined level of excess ("LOE") above the minimum reserve requirement, resulting in the "Net CONE."[4] More specifically, Net CONE is derived from an estimate of the annual capital and fixed operation and maintenance costs, including a return of and on investment, to construct a typical new peaking unit (*i.e.*, a simple cycle gas turbine plant), less projected EAS revenues, net of variable operating costs, that a new peaking unit could expect to earn specific to each zone.

In stark contrast to the boom/bust nature of the vertical curve then in place, the Commission found that the Demand Curves would improve reliability in the New York Control Area ("NYCA") by providing transparent, accurate, and stable price signals to investors to construct new generation and retain needed existing generation, facilitating the formation of long-term bilateral transactions and reducing incentives to withhold capacity.[5] As required by the Services Tariff, the Demand Curves are reviewed every four years pursuant to an independent analysis and stakeholder comment process and are reset for a four-year period, referred to as the ICAP Demand Curve reset ("DCR").[6]

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[3] *See N.Y. Indep. Sys. Operator, Inc*., 103 FERC ¶ 61,201 (2003).

[4] *See N.Y. Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,064 at P 22 (2008) ("The peaking unit chosen for the development of an ICAP Demand Curve is critical because the cost of the unit is the single largest fixed-cost component used to set ICAP demand curves."); *N.Y. Indep. Sys. Operator, Inc*., 125 FERC ¶ 61,299 at P 38 (2008).

[5] *N.Y. Indep. Sys. Operator, Inc.*, 103 FERC ¶ 61,201 at PP 31, 36 (2003).

[6] *See* NYISO Services Tariff § 5.14.1.2.2.

The choice of peaking technology has long been identified as one of the most significant issues affecting the DCR process. The Commission has ruled that in selecting a proxy generating unit, "only reasonably large scale, standard generating facilities that could be practically constructed in a particular location should be considered."[7] The Services Tariff requires the NYISO to base the Net CONE estimate on a proxy peaking unit with "the lowest fixed cost and highest variable cost among all other units' technology that are economically viable."[8]

As highlighted in the NYISO Filing, "[t]he Commission has established that economic viability demonstrations are a matter of judgment that is informed by the consideration of multiple factors," which include, *inter alia*, "existence of sufficient operating experience to demonstrate that the technology is proven and reliable" and "the ability to achieve compliance with applicable environmental requirements and regulations."[9] Thus, to be economically viable, the technology in question must be a proven technology and must be capable of being replicated to meet the reliability needs in each capacity zone over the long term.[10]

The current DCR process commenced in the summer of 2019 when the NYISO retained the Analysis Group, Inc. ("AGI"), and Burns & McDonnell Engineering Company, Inc. ("BMCD") as AGI's subcontractor (collectively the "Consultants"), to conduct an independent and comprehensive analysis and provide recommendations on the various parameters used to establish the ICAP Demand Curves for New York City ("NYC"), Long Island ("LI"), the G-J

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[7] *N.Y. Indep. Sys. Operator, Inc*., 134 FERC ¶ 61,058 at P 14 (2011).

[8] NYISO Services Tariff § 5.14.1.2.2.

[9] NYISO Filing at P 7.

[10] *See, e.g., N.Y. Indep. Sys. Operator, Inc.*, 122 FERC ¶ 61,064 at P 23 (2008); *see also* NYISO Filing at 8 (establishing that, to achieve the fundamental objectives of the ICAP Demand Curves, the proxy unit must be reliably constructed and operated in multiple instances).

Locality, and the NYCA for the DCR period.[11] Numerous stakeholder working group meetings were held among NYISO Staff, the Consultants and market participants over a 12-month period.[12] At these meetings, the parties actively debated the inputs to the Consultants' model that would be used to determine the Demand Curves for each zone.

The Consultants issued their draft report on June 5, 2020 and an interim version of their final report on August 5, 2020.[13] In accordance with the requirements of the Services Tariff, the Consultants updated the interim final report on September 9, 2020 to reflect final values for the ICAP Demand Curves for the 2021/2022 Capability Year using the tariff-prescribed three-year historical data period from September 1, 2017 through August 31, 2020 for determining net EAS revenue estimates.[14] In their draft and final reports, the Consultants recommended the F class frame turbine, which the Commission had accepted for the last DCR reset covering the 2017/2018 through 2020/2021 Capability Years, be replaced with the H class frame turbine as the peaking unit technology for each of the ICAP Demand Curves.[15] Consistent with the approach approved by the Commission in the last two DCRs, the Consultants recommended that the peaking plants continue to include dual fuel capability and selective catalytic reduction ("SCR") emissions control technology to ensure compliance with applicable environmental

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[11] NYISO Filing at P 3.

[12] *Id.*

[13] Paul Hibbard *et al.*, *Independent Consultant Study to Establish New York ICAP Demand Curve Parameters for the 2021/2022 through 2024/2025 Capability Years – Initial Draft Report*, AG & BMCD (June 4, 2020), https://www.nyiso.com/documents/20142/13248786/Analysis-Group-2019-2020-DCR-Draft-Report.pdf. ("Consultants' Draft Report"). The Consultant's interim final report is available at: https://www.nyiso.com/documents/20142/14404876/Analysis%20Group%20Interim%20Final%20Demand%20Curve%20Reset%20Report.pdf.

[14] Paul Hibbard *et al.*, *Independent Consultant Study to Establish New York ICAP Demand Curve Parameters for the 2021/2022 through 2024/2025 Capability Years – Final Report*, AG & BMCD (Sept. 9, 2020) ("Consultants' Final Report"). The Final Consultants' Report is included as Exhibit E of the *Affidavit of Paul J. Hibbard, Dr. Todd Schatzki, Charles Wu, and Christopher Llop* attached to the NYISO Filing as Attachment III ("AG Affidavit").

[15] *See* Consultants' Draft Report at P 7; Consultants' Final Report at P 7.

requirements and permit projects to be sited in the NYC, LI, and G-J Locality ICAP Demand Curves.[16]

In developing its draft recommendations, the NYISO considered the feedback from stakeholders throughout the process, as well as the analysis and recommendations of the Consultants.[17] IPPNY and other market participants submitted detailed written comments on certain aspects of the Consultants' reports to the NYISO Staff. The NYISO Staff issued its draft and final recommendations for the 2021/2022 ICAP Demand Curves and the methodologies and inputs to be used in conducting annual updates for the 2022/2023 through 2024/2025 Capability Years on August 5, 2020 and September 9, 2020, respectively.[18]

After receiving feedback from both stakeholders and the NYISO's independent Market Monitoring Unit ("MMU"), the NYISO Staff largely adopted the recommendations in the Consultants' Final Report. NYISO Staff's changes from the Consultants' Final Report included: (1) modifying certain logic related to the use of gas price data contained in the model that calculates the net EAS revenue offset values for the peaking plants; (2) the proposed gas hub for the peaking plant located in Load Zone C; and (3) enhancements to the translation of the annual peaking plant gross cost values to monthly values used in establishing the maximum clearing price value for each ICAP Demand Curve.[19] The NYISO Staff appropriately concurred with the Consultants' recommendations that the NYC, LI, and G-J peaking units include dual fuel and

[16] Consultants' Final Report at P 7.

[17] NYISO Filing at P 5.

[18] *Proposed NYISO Installed Capacity Demand Curves for the 2021-2022 Capability Year and Annual Update Methodology and Inputs for the 2022-2023, 2023-2024, 2024-2025 Capability Years*, NYISO (Aug. 2020), https://www.nyiso.com/documents/20142/13248786/NYISO-Staff-Draft-DCR-Recommendations-Final.pdf. NYISO Staff's final recommendations ("NYISO Staff Final Recommendations") are included as Exhibit A of the *Affidavit of Zachary T. Smith* attached to the NYISO Filing as Attachment V.

[19] NYISO Filing at P 5.

SCR technologies.[20] After written comments and oral argument from stakeholders to the NYISO Board of Directors ("Board"), the Board adopted the NYISO Staff's final Demand Curve recommendations in their entirety and directed NYISO Staff to file them with the Commission.

As discussed below, there are a number of flaws in the NYISO's modeling of the Demand Curves which produce proposed reference values that do not adequately reflect the Net CONE of the proxy peaking plants. Compared to the 2020-2021 Demand Curve reference point prices, the NYISO Filing proposes reference point prices for 2021-2022 that are as much as 20% lower in certain load zones.[21] This dramatic year-to-year drop in reference point price is not solely attributable to the change in proxy peaking technology from the F class to the H class frame turbine. Much of the decrease in reference point price is attributable to: (i) theoretical economic models and assumptions that low ball the cost of investment while discounting evidence provided by IPPNY and its members of actual investment costs; and (ii) significantly underestimating the adverse impact of existing laws, regulations, out of market contracts, and New York's unique political and regulatory climate on merchant investment. Critically, reliability analyses issued by both the NYISO and Consolidated Edison Company of New York, Inc. ("Con Edison") demonstrate that New York State's public policy initiatives will drive retirements which result in significant reliability needs on the New York system by 2023, *i.e.*, during *this* DCR period.[22]

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[20] *Id.* at P 6.

[21] *See DCR Results 2020-2021*, ICAP Monthly Reference Point Price ($/kW-Month), NYISO, https://www.nyiso.com/documents/20142/8478044/DCR-Results-2020-2021.pdf/f9aaf751-a887-5dc9-f78a-b63578025b56.

[22] *See* Laura Popa & Keith Burrell, *2020 RNA Preliminary ("1st Pass") Reliability Needs*, NYISO (June 19, 2020), https://www.nyiso.com/documents/20142/13200831/02%202020RNA_1stPassRN.pdf/8a0de336-bd24-1260-dc4b-5df58cdb049f; *see also* Con Edison, 2020 RNA Con Edison Preliminary Findings (June 19, 2020), https://www.nyiso.com/documents/20142/13200831/03%202020%20RNAConEd%20Local%20System%20Base%20Case%20Assessments%20Results.pdf/17424cd7-3cef-3637-2388-5a27654af266.

Reference point prices must be adequate for the system to attract sufficient new, and retain sufficient existing, resources in the short term to address these needs and ensure that New York maintains the necessary resource adequacy for a reliable system over the long term. The need for dispatchable resources to ensure resource adequacy has become even more acute since the last DCR process was completed given the aggressive advancement of the State's Clean Energy Standard ("CES"), whose renewable energy goals were significantly expanded by the State's enactment in 2019 of the Climate Leadership and Community Protection Act (the "Climate Act").[23]

There are several aspects of the NYISO Filing that do *not* account for real world information, rest on flawed assumptions and are materially deficient, and thus, the NYISO has failed to meet its burden of demonstrating aspects of its Filing are just and reasonable because they do not produce the price signals needed to support adequate investment to maintain the long-term reliability of the system. IPPNY thus urges the Commission to direct the NYISO to correct these errors. Specifically, the Commission should require the NYISO to:

- Reduce the amortization period in all capacity zones from 17 years to 15 years;
- Increase the Return on Equity ("ROE");
- Reflect the cost of required hedging arrangements and realistic development costs in the cost of building the proxy unit;

[23] Climate Leadership and Community Protection Act, 2019 N.Y. Sess. Laws Ch. 106 (McKinney). Pursuant to the Climate Act, jurisdictional load serving entities must secure adequate amounts of renewable energy resources to serve at least 70% of load in 2030 (referred to as the "70 by 30 Target"). The Climate Act also specifically requires the entry of 3,000 MW of energy storage resources by 2030, 6,000 MW of photovoltaic solar generation by 2025, and 9,000 MW of offshore wind generation by 2035. Additionally, the Climate Act mandates a zero-emitting power sector by 2040.

- Increase pipeline construction and NYC site leasing costs to be commensurate with real world costs incurred by New York developers in recent years;[24] and
- Continue to designate Iroquois Zone 2 as the natural gas hub for the Zone G-Rockland proxy peaking plant in its Demand Curve model or, should it find the TETCO M3 designation may stand, at a minimum, correct the gas availability and transportation cost assumptions embedded in its Demand Curve model.

The NYISO Filing also included determinations that are critical if the proposed reference values are to accurately reflect the Net CONE of the proxy peaking plants. Some market participants in the stakeholder process requested modifications to Staff's Final Report which would unreasonably drive down reference prices even further. The NYISO has rightfully rejected some of these requests. On these matters, the Commission should accept the NYISO's proposals that:

- There must not be "one-time adjustments" to omit EAS prices for the months affected by COVID-19;
- Dual fuel and SCR emissions control technologies must be included in the assumed Net CONE of the Zone G Dutchess County proxy peaking unit; and
- A dual TGP Z4 (200L)/Niagara gas hub approach must be used in the non-winter and winter months, respectively, for purposes of calculating Net EAS revenues for the Zone C proxy peaking unit.

[24] While IPPNY agrees that the costs of individual projects may vary, it is not just and reasonable to proposes costs at levels that do not fall within a reasonable range of those being incurred by real world projects.

II. PROTEST

A. The Commission Should Direct the NYISO to Reduce the Amortization Period in All Capacity Zones From 17-years to 15-years.

Pursuant to the Services Tariff, the DCR determines "the current localized levelized embedded cost of a peaking plant" for each ICAP Demand Curve, which requires that the estimated up-front capital investment costs for each peaking plant, including property tax and insurance, be translated into an annualized level.[25] Among other factors, this translation requires defining the term in years over which the developer is assumed to recover its up-front investment costs, *i.e*. the "amortization period." The assumed amortization period at the LOE point must yield revenues that will induce new entry for the Demand Curves to serve their fundamental purpose of inducing new entry when needed to meet the minimum capacity requirements.

The NYISO's proposal to reduce the amortization period currently used in the 2017-2021 DCR from 20 to 17 years[26] is right in principle but ultimately wrong as applied. Pursuant to the Climate Act, the electric power sector must be zero carbon emitting by 2040, which means the proposed H class frame turbine peaking unit technology will not be permitted to operate in 2040 and beyond. Thus, the Climate Act has a direct impact on the useful operating life of the reference unit. It is therefore reasonable to assume that the useful operating life of the selected proxy peaking unit will end in 2040. Publicly available information demonstrates that the NYISO's proposed 17-year amortization period is an unreasonable approximation of the number of years during which a new peaking unit could reasonably be expected to recover its capital costs.

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[25] NYISO Services Tariff § 5.14.1.2.2.

[26] NYISO Filing at P 51.

A 15-year amortization period is the only reasonable approximation of the amount of time the developer of a new peaking unit responding to the reference point prices for the 2021-2025 Demand Curves can expect to recover its capital costs. The proposed 17-year amortization period wholly ignores that no new fossil peaking plant similar to the proxy unit is under construction at this time, nor could any proxy unit be expected to enter the NYISO's interconnection queue upon approval of the new Demand Curves and reach commercial operation before the second half of the DCR period (2023-2025).

The NYISO's interconnection queue confirms the proposed 17-year amortization period is untenable. There are three fossil-fuel based projects in Class Year 2019 ("CY19")—the Danskammer project (#791), the Liberty Generating Alternative project (#668), and the Gowanus Gas Turbine Facility Repowering project (#778).[27] The projects have estimated Commercial Operation Dates ("CODs") of March 2023, February 2024, and February 2022, respectively.[28] As is common with developers' COD estimates, these dates are likely optimistic, particularly given current public and government sentiment towards fossil-fuel based investment in New York State. CY19, which commenced on August 1, 2019, has not concluded and will not conclude before January 2021 as indicated by the NYISO's recent Notice of Initial Decision Period.[29] Notably, the developer of the Gowanus Gas Turbine Repowering project rejected its

[27] *See NYISO Interconnection Queue 11/19/2020*, NYISO (Nov. 19, 2020), https://www.nyiso.com/documents/20142/1407078/NYISO-Interconnection-Queue.xlsx/b5d2d932-225a-10e6-5b45-075acb4fb4a9.

[28] *See Id*.

[29] *See* Notice of Initial Decision Period, NYISO (Dec. 15, 2020), available at https://www.nyiso.com/documents/20142/1396587/CY2019-Notice-of-Initial-Decision-Period-Results.pdf/0a74e4a4-a04f-754b-c131-a32412ff338c ("Notice of Initial Decision Period"). The Notice of Initial Decision Period indicates that the NYISO will issue a revised CY19 Study report, including Revised Project Cost Allocations, by December 28, 2020, in accordance with Attachment S of the NYISO Open Access Transmission Tariff. *Id.* CY19 Project Developers will have seven (7) calendar days from the issuance of the updated report to accept or reject their respective cost allocation. Therefore, CY19 can conclude no earlier than January 2021.

cost allocation and has dropped out of CY19, making its February 2022 COD unachievable.[30] Given that each Class Year study since 2008 has taken, on average, at least two years for the various study components to be completed, it is likely that the upcoming Class Year commencing in 2021 will not conclude before sometime in 2022 or 2023.[31]

Assuming, *arguendo*, that the two remaining gas-fired facilities in CY19 achieve their current COD estimates,[32] under what are likely the best-case scenarios and consistent with AGI's methodology of proposing a static operating life across the entire four-year DCR period (calculated as the average of the facility's remaining operating life in each year), the average operating life of the two facilities in CY19 is only 16 years.[33] Importantly, this 16-year period also presumes estimated CODs will hold in the face of siting, permitting, construction and other delays that are common for all electric generating projects in New York, but especially fossil fuel plants; for its part, the Danskammer project has not received its Certificate of Environmental Compatibility and Public Need pursuant to Article 10 of the New York Public Service Law[34] and is facing opposition from certain local and environmental groups.[35] Moreover, any developer of a fossil-fueled project subsequently entering a future CY in response to the new reference prices

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[30] IPPNY has been authorized by Eastern Generation, LLC, the developer of the Gowanus Gas Turbine Repowering project, to make this statement.

[31] *See Class Year Study: Lessons Learned and Discussion Regarding Potential Process Improvements/Redesign*, NYISO (March 6, 2019), available at https://www.nyiso.com/documents/20142/5326027/07_Class%20Year%20Lessons%20Learned_030619%20TPAS_Final.pdf/6ed30de4-4717-a9de-e80c-0710be5c653f.

[32] Notably, out of the two remaining projects (the Danskammer project and Liberty Generating Alternative project), only the developer of the Danskammer project has accepted its cost allocation to date. *See* Notice of Initial Decision Period at PP 3-5.

[33] The commercial operating life was calculated by counting the number of years between May 1 of the Capability Year the unit reaches COD and January 1, 2040, consistent with Consultants calculations used to recommend a 17-year amortization period. Consultants' Final Report at P 62.

[34] *See* New York Public Service Commission Case 18-F-0325, *Application of Danskammer Energy, LLC for a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10*.

[35] *See* Leonard Sparks, *State: Power Plant Project Needs Juice*, The Highlands Current (Sept. 26, 2020), https://highlandscurrent.org/2020/09/26/state-power-plant-project-needs-juice/.

established in this DCR will be required to complete the next Class Year and likely will have a COD no earlier than 2023 and very likely closer to 2025, making the currently recommended 17-year amortization period even less tenable for investors seeking to recoup their costs before 2040.

Even under these best-case circumstances, the proposed 17-year amortization period is insufficient for project developers to recover the capital costs of their projects. To be clear, IPPNY is not basing this position on what any one generator may or may not do. The amortization period should be durable throughout the reset period. Thus, considering probable construction timelines based on any proposed projects that could actually be developed during this DCR period and taking into account risk to in-service dates, a reasonable amortization period for the fossil-fueled peaking plant can be no longer than 15 years.

The MMU and a number of other stakeholders suggested in their comments in the stakeholder process that the NYISO should not deviate from the historically assumed 20-year amortization period. They suggested that the owner of the proxy peaking plant will likely be able to retrofit the facility to run on alternative fuels, such as hydrogen or renewable natural gas, that are presumed will comply with the Climate Act's emissions free mandates, thereby retaining the value of the plant post-2040.[36] These assertions put the cart before the horse. The MMU justified its assertion by citing to studies conducted by AGI and the Brattle Group which concluded that prohibitively large amounts of renewable and battery resources would be needed to replace fossil fuel-fired generation after 2040, and, therefore, there is no reasonable basis for

[36] Even now, environmental groups including the New York City Environmental Justice Alliance have expressed skepticism as to the "emissions free" nature of hydrogen combustion, citing to increased emissions of NOx that results. *See Hydrogen Hype in the Air*, https://www.cleanegroup.org/hydrogen-hype-in-the-air/; *see also* PEAK Coalition, "Tweet Message," (Dec. 15, 2020), https://twitter.com/PeakCoalition/status/1338843653062717440.

assuming that all existing dispatchable resources will retire.[37] While it appears likely there will be a need for dispatchable generation on the system in 2040 based on what is known about technological advances at this time, there is simply no way of knowing which resources or technologies will be feasible, economically viable, or permitted by the State to meet the goals of the Climate Act, or whether the proxy peaking unit in each of the areas would ultimately be one of those dispatchable resources that continue to operate. Nor, equally importantly, can any cost for such retrofits reasonably be estimated at this time as AGI repeatedly established during the stakeholder meetings. No party provided evidence to the contrary.

The MMU further cited to a statement by the developer of the proposed Danskammer gas-fired repowering project that the facility can transition to zero-emission hydrogen power "when the technology is available to transport and store hydrogen."[38] The MMU and other stakeholders' assertions that a developer of the fossil fuel-fired proxy peaking plant will be able to retrofit the facility to run on an alternative fuel source are completely subjective and not based on evidence. Conversion is likely to have significant costs, which are unknown at this time because this technology is not available, none of the entities proposing longer amortization periods have included a reasonable quantification of those future costs in their proposals, and these costs would need to be accounted for in this DCR if the project were assumed to continue operating beyond 2040.

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[37] David Patton and Pallas LeeVanSchaick, *MMU Comments on Independent Consultant Initial Draft ICAP Demand Curve Reset Report and the forthcoming draft of NYISO Staff DCR Recommendations* (Aug. 5, 2020) ("MMU DCR Comments"), https://www.nyiso.com/documents/20142/13609298/MMU-2020-DCR-Draft-Report-Comments.pdf/d31ba142-5af8-4b04-af51-1a275682a962 at P 6, n.5–6

[38] *See* David Patton and Pallas LeeVanSchaick, *MMU Comments on Independent Consultant Interim Final Draft ICAP Demand Curve Reset Report and NYISO Staff DCR Recommendations* (August 24, 2020) at 6, note 3, https://www.nyiso.com/documents/20142/14871137/MMU-2020-DCR-Draft-Report-Comments-08-24-2020.pdf/ea79ce65-63ab-dee3-ca5f-73b6c1f41bce.

Investors will not finance projects today based on the expected revenues that would come from continuing to run a retrofitted with technology that does not currently exist and the costs for which cannot be known. Nor will an investor consider revenues that rely upon a fuel source that does not exist in the quantities, and at the prices, that would be necessary to reliably operate a peaking facility. To the contrary, investors are seeking to recoup their capital prior to 2040, the very basis for IPPNY's proposed 15-year amortization period.

B. The Commission Should Direct the NYISO to Increase the Proposed Return on Equity.

The NYISO's proposed financial parameters used to calculate the Weighted Average Cost of Capital ("WACC") to a developer of the proxy peaking unit are flawed. They are too heavily benchmarked against corporate debt when the evidence of project development in New York demonstrates that investments have been, and are continuing to be, made utilizing project finance debt. In addition, the proposed WACC does not adequately reflect the risk of fossil-fuel based investment in New York and ignores evidence that IPPNY and its members provided to the Consultants and the NYISO demonstrating that lenders require developers to incur the upfront capital cost or ongoing financial carrying costs of energy margin hedges.

As reflected in the Consultants' Final Report, AGI determined the WACC inputs, in part, based on publicly available information from publicly traded independent power producers ("IPPs") (NRG Energy ("NRG"), Vistra Energy ("Vistra"), Calpine, and Talen Energy) and independent assessments.[39] Specifically, AGI first evaluated the estimated ROE for two of these publicly traded IPPs (NRG and Vistra), which has averaged between 7.79% and 9.13%—while acknowledging that, because these companies' business activities and portfolios of assets extend

[39] Consultants' Final Report at PP 63-64.

outside of merchant power generation, their ROE is "not necessarily comparable to the required [ROE] for a new peaking plant project in New York."[40] AGI next relied on the previous two Net CONE studies of PJM Interconnection, L.L.C. ("PJM") and ISO New England Inc. ("ISO-NE"), which had ROEs that ranged from 12.8% to 13.8%.[41] Lastly, AGI considered estimates of the ROE for stand-alone project finance developments from several independent sources, which ranged as high as 20%.[42] Based on all of this information, AGI recommended an ROE of 13%, which it claimed is a balance between the lower IPP value and higher project finance values.[43]

The recommended ROE of 13% is too low. AGI based its ROE recommendation too heavily on the average estimated ROE of publicly traded IPPs, which primarily invest in new projects utilizing balance sheet financing. AGI disregarded 20 years of evidence demonstrating that all new gas-fired power generation projects in New York have been financed utilizing non-recourse financing, not balance sheet financing.[44] There are any number of reasons why developers have chosen to finance their projects utilizing non-recourse financing over balance sheet financing in New York, but the fact remains that equally weighting the expected ROE of publicly traded IPPs and private-equity backers is an unreasonable balance given actual historic investments. Even in the case of corporate investment, the corporate cost of capital is the average for the corporation. AGI acknowledged that the companies it reviewed have a

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[40] *Id.* at P 68.

[41] *Id.*

[42] *Id*.

[43] *Id*.

[44] IPPNY utilized the IJGlobal Project Finance & Infrastructure Journal transactional database. The following gas-fired generators have been project financed since January 1, 2000: Cricket Valley Energy Center; CPV Valley; Bayonne Peaker Energy Center; Astoria Energy Phase I & Phase II; Rensselaer Combined Cycle Power Plant; and Caithness Long Island Power Plant. Projects that were balance sheet financed were limited to acquisitions and additions to existing facilities.

combination of merchant projects and projects backed by contracts.[45] If a publicly traded company were to use balance sheet financing for a merchant facility, they would require a higher return than their corporate rate because the investment is riskier than their corporate portfolio.

Staff's recommended ROE also is too low because it underweights the level of risk faced by developers of fossil generation in New York. Notably, neither PJM nor ISO-NE operates a market where a single state's public policies so directly increase the risk of investment in the region. While the multi-state nature of PJM and ISO-NE allows developers to locate supply within jurisdictions that present the least regulatory risk, a developer within the NYISO footprint cannot avail itself of similar risk mitigation tactics. New legislation and regulations already enacted in New York, such as the Climate Act, the Accelerated Renewable Energy Growth and Community Benefit Act,[46] which expedites the siting or renewable resources, and a newly promulgated New York Department of Environmental Conservation's ("DEC") rule, known as the Peaker Rule,[47] to substantially restrict emissions from peaking units by 2023 and 2025, require a higher ROE to account for the additional risk faced by fossil investments in New York.

The DEC has also proposed regulations for public comment to reduce greenhouse gas emissions statewide to 60% of 1990 levels by 2030 and to 15% by 2050 in compliance with the mandates of the Climate Act.[48] The Commission should therefore direct the NYISO to more heavily weight the expected ROE for project financed projects by increasing the ROE to between 15% and 17%, which is squarely within the range of the expected ROE for private lenders and

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[45] Consultants' Final Report at P 64.

[46] Accelerated Renewable Energy Growth and Community Benefit Act, 2020 N.Y. Sess. Laws Ch. 58, Part JJJ (McKinney).

[47] 6 NYCRR Subpart 227-3.

[48] *See Adopted Part 496, Statewide Greenhouse Gas Emission Limits*, New York State DEC, https://www.dec.ny.gov/regulations/121052.html#:~:text=DEC%20has%20adopted%206%20NYCRR,Leadership%20and%20Community%20Protection%20Act.

consistent with the ROE that would be expected of even publicly traded companies due to the outsized risk of investing in fossil-fuel infrastructure in New York.

C. The Commission Should Direct the NYISO to Reflect the Cost of Financial Hedging and Realistic Development Costs in the Cost of Building the Proxy Unit.

Since the 2016 DCR process, it has been the experience of IPPNY members that lenders have routinely required, in PJM, ISO-NE, and NYISO, energy margin hedging for all new merchant natural gas facilities through revenue puts which represent a considerable upfront funding requirement coinciding with the financial closing of the facility. As demonstrated in the attached affidavit of Mr. Damon Anderson, the Vice President-Commercial for Advanced Power Services (NA) Inc., which is the part owner and asset manager for the recently constructed 1,100 MW gas-fired combined cycle generation facility owned by Cricket Valley Energy Center, LLC ("CVEC"), revenue puts establish a floor amount of energy related revenue every month during the term of the financing, the cost of which can only be reflected in the upfront premium payment for the put option at financial close.[49] Financial hedges are akin to an insurance policy that guarantees the lender it will receive a certain amount of revenue if market revenues are insufficient to cover a borrower's debt payments.[50] Lenders will not make capital available to a developer without a financial hedge, especially in New York where the absence of a forward capacity market significantly increases revenue uncertainty.[51] As ISO-NE and PJM have forward capacity markets, this is a further reason why partial reliance on the financial parameters assumed in these markets for purposes of determining accurate financial parameters in NYISO is misguided.

[49] Affidavit of Damon Anderson, attached hereto as Exhibit 1, at ¶ 6.

[50] *Id.*

[51] *Id*. at ¶ 8.

As Mr. Anderson demonstrates, the cost of a revenue put to obtain construction financing for the CVEC facility accounted for almost 5% of the $1.5 billion cost of the facility.[52] Mr. Anderson provided the cost of its revenue put to the NYISO during the stakeholder process, yet the NYISO's proposed Demand Curves do not reflect hedge costs of this magnitude.[53]

The methods by which different technologies are financed in the power sector are fluid. What was an acceptable balance of considerations in a previous DCR does not guarantee that same balance is just and reasonable in the current or next DCR. Indeed, the periodic review process was incorporated in the Demand Curve structure from the outset to ensure technology advancement, system conditions, market factors and any other relevant changes were captured in each reset process. The NYISO has inexplicably ignored the significant costs of required hedging arrangements notwithstanding clear evidence demonstrating they are now a necessary precondition to secure financing of a merchant project in New York. The Commission should require the NYISO to reflect in the capital costs of the proxy peaking unit the cost of an RP or similar hedge to provide a margin floor equal to 3 to 5% of the total cost of the peaking unit.[54]

Mr. Anderson also provided information to the NYISO demonstrating that it significantly underestimated the development costs and permitting fees associated with development of a gas-fired generation facility in New York. The NYISO assumed for the proxy unit in the NYISO Zone G – Dutchess only $370,000 for Owner's Project Development and $1,000,000 for Owners Permitting and Licensing Fees.[55] As Mr. Anderson demonstrates in his affidavit, the development and permitting fees incurred for CVEC's facility were $37,200,000, approximately

[52] *Id.* at ¶ 7.

[53] *Id*. at ¶ 9.

[54] *Id.* at ¶ 10.

[55] *Id.* at ¶ 11.

10 times the development costs estimated by the NYISO, due to the rigorous, costly, lengthy and difficult New York permitting process.[56]

Thus, the Commission should direct the NYISO to revise the Demand Curves by reflecting the actual hedging and development costs in the Demand Curve assumptions.

D. The Commission Should Require the NYISO to Increase Pipeline Construction and NYC Site Leasing Costs to Reflect the Actual Costs Incurred by New York Developers in Recent Years.

For all locations other than NYC, the NYISO assumed an average gas lateral cost of $250,000 per inch diameter per mile as part of the estimated gas interconnection costs for the proxy unit.[57] In response to IPPNY's comments in the stakeholder process, BMCD had increased the proposed gas pipeline interconnection cost from $180,000 to $250,000 per inch diameter per mile. However, the $250,000 per inch diameter per mile recommendation is a mere 38% increase to the costs that IPPNY demonstrated had recently been incurred to construct a gas lateral pipeline to interconnect the recently built 680 MW gas-fired CPV Valley Energy Center ("CPV Valley") generating facility located in Rockland County, New York, Zone G. These costs were roughly $522,000 per inch diameter per mile, more than 200% higher than BMCD's initial recommendation. To recommend a gas interconnection cost that is so clearly below actual costs incurred by a developer that responded to currently applicable siting requirements, such as a requirement to trench the entire length of the pipeline, is unreasonable.

In addition to evaluating the costs of the CPV Valley interconnection, the BMCD cost recommendation is calculated based on the estimated average costs of five other pipelines in or around New York: the National Fuel Gas Northern Access, the Constitution Pipeline, the

[56] *Id.* at ¶ 13.

[57] NYISO Filing at P 24.

PennEast Pipeline, the National Fuel Gas FM100, and the Bayonne Lateral Delivery projects.[58] Of these projects, the Constitution Pipeline has been cancelled, the FM 100 is unconstructed, and the Northern Access and PennEast pipelines are both stalled 100+ mile long interstate pipelines with preliminary cost estimates that cannot be relied upon and, even if they could be, benefit from economies of scale and efficiencies that a lateral pipeline a fraction of the size would be unlikely to achieve.[59] The only pipeline evaluated by the Consultants that has actually been constructed and that shares characteristics similar to that of the proxy peaking unit lateral being evaluated is the Bayonne Lateral Delivery project, and that project was completed in 2012 before the current level of hostility towards fossil fuel infrastructure existed in New York.

As demonstrated in the protest of CPV Power Holdings, LP, which is the owner of CPV Valley, filed in this docket on this date, an analysis of completed gas lateral pipelines in the Northeast that more closely resemble the characteristics of the proxy peaking unit lateral, *i.e.*, are closer in length, indicates costs closer to $950,000 per inch diameter per mile, nearly quadruple the recommendation in the Consultants' Final Report.[60] Therefore, the Commission should direct the NYISO to revise its CONE estimate to reflect an estimate based on the cost to construct power plant gas laterals and to rely on data for actual projects that have been completed or are under construction.

Another considerable discrepancy between the NYISO's assumptions and real-world evidence is the Site Leasing Cost Assumptions for Zone J. In its comments submitted in the stakeholder process, IPPNY demonstrated that the Consultants' $270,000/acre-year site leasing

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[58] *Id*. at 25 n.144.

[59] *See U.S. Natural Gas Pipeline Projects*, Energy Information Administration (Accessed Oct. 10, 2020), https://www.eia.gov/naturalgas/pipelines/EIA-NaturalGasPipelineProjects.xlsx.

[60] Docket No. ER21-502-000, *supra,* Motion to Intervene and Protest of CPV Power Holdings, LP (Dec. 21, 2020) at P 11.

cost assumption was based on stale-data which was developed in the 2010 DCR and simply escalated for inflation in each DCR period since then.[61] Given such data is stale, IPPNY cited to recent appraisals provided by Eastern Generation, LLC ("Eastern") to BMCD which indicated that the value of land that is suitable for proxy peaking plant development in Queens and Brooklyn is roughly *double* the $270,000/acre-year cost.[62]

As demonstrated in the affidavit of Mr. Liam Baker, Vice President, Regulatory Affairs for Eastern Generation, LLC, Eastern received three independent appraisals of land in NYC.[63] It is important to appreciate not only the sources of the appraisals, but also their uses. Two of the appraisals were for the purpose of establishing the payment Eastern must make for an easement granted by the New York State Department of State over real property upon which Eastern's Narrows Generating Station is located in Sunset Park, Brooklyn.[64] The independent appraisers appraised the real property at $13,070,000 per acre and $12,593,103 per acre, which equates to $718,850/acre-year and $692,620/acre-year.[65] The original easement granted in 1999 cost $425,000 for a term of 25 years.[66]

Eastern also obtained an independent appraisal of land owned by the New York Power Authority ("NYPA") adjacent to its Astoria Generating Station in Astoria, Queens.[67] Eastern

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[61] Matthew Schwall, *Comments of Independent Power Producers of New York, Inc. on Proposed NYISO Installed Capacity Demand Curves for 2021-2025 and Request for Oral Argument*, IPPNY (Oct. 9, 2020) ("IPPNY Stakeholder Comments") at 21, https://www.ippny.org/vs-uploads/filings/1594053675_7.1.2020%20IPPNY%20Comments%20on%20DCR%20Initial%20Draft%20Report.pdf.

[62] *See id.* at P 24 n.56.

[63] Affidavit of Liam Baker, attached hereto as Exhibit 2.

[64] *Id.* at ¶¶ 6, 7.

[65] *Id*. at ¶ 8, 9.

[66] *Id*. at ¶ 7.

[67] *Id*. at ¶ 10.

needed the appraisal to develop its response to a Request for Proposals ("RFP") conducted by NYPA.[68] The RFP invited bidders to express interest in leasing the land to build a new, utility scale energy storage facility if the respondent is awarded a long-term power purchase agreement for the output of the energy storage facility.[69] NYPA accepted the offer contingent on Eastern being selected to construct the energy storage facility.[70] The lease offer was $522,000/acre-year or almost exactly double the $270,000/acre-year proposed by the Consultants.[71] Again, the $522,000/acre-year (which would have been inflated over time) represents the amount Eastern *would have been willing to pay* to *construct a new generating facility in NYC*. This is exactly the data point which is germane to the exercise of calculating the costs of new entry in NYC.

The Consultants claimed to have considered market transactions, property tax values, stakeholder-provided feedback, and quoted values obtained through discussion with various property owners concerning the potential acquisition of land for similar use, and determined that the $270,000/acre-year recommendation was within the observed range of values.[72] Importantly, however, BMCD did not provide any details nor was BMCD able to confirm that the other properties they considered were in reasonable proximity to the necessary gas and electric interconnections to support a proxy peaking plant.

In its comments in the stakeholder process, IPPNY requested that additional information be provided on the range of values that were observed by BMCD, as the only value known to stakeholders during the stakeholder process was the value of land that Eastern had offered and

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[68] *Id*. at ¶ 11.

[69] *Id*.

[70] *Id*. at ¶ 12.

[71] *Id*. at ¶ 11.

[72] Consultants' Final Report at P 49.

provided to the Consultants and NYISO, which, again, was more than 100% higher than BMCD's recommendation.[73] In the BMCD affidavit submitted with the NYISO's Filing, BMCD states that among the range of values that were identified were those for nine sites adjacent to existing power plants within Zone J.[74] BMCD states that the average annual land lease cost for these nine adjacent sites is $160,712/acre-year, but does not state whether such land is sited in an industrial zone or is suitable for power plant construction.[75] As demonstrated in Mr. Baker's affidavit, the land appraised for Eastern by independent consultants was zoned and suitable for the express purpose of constructing a new power generation facility.

Even assuming that all nine of the adjacent sites evaluated by BMCD are suitable for power plant construction, the $270,000/acre-year site leasing cost recommendation is unreasonably low. BMCD acknowledges that "property values and associated leasing cost for property within New York City have a wide range of potential values and are highly dependent on-site specific factors and conditions."[76] Without knowing the site-specific factors for the nine adjacent sites examined, it is impossible to know whether the cost assumptions for those sites are representative of sites suitable for the proxy peaking plant, and yet BMCD recommends a site leasing cost assumption that is simply escalated from data that is known to be stale and that is not even the average value of the average costs for the nine adjacent sites versus the costs provided by stakeholders, which would equal $403,111/acre-year. Therefore, the Commission should direct the NYISO to revise its Site Leasing Cost Assumptions substantially upwards based on the independent appraisals provided by Eastern.

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[73] IPPNY Stakeholder Comments at PP 21–23.

[74] Affidavit of Matthew E. Lind and Kieran McInerney at ¶ 39, attached as Attachment IV to NYISO Filing ("BCMD Affidavit).

[75] *Id*. at ¶ 39.

[76] *Id*. at ¶ 40.

E. The Commission Should Direct the NYISO to Retain Iroquois Zone 2 as the Natural Gas Hub for the Zone G-Rockland Proxy Peaking Plant in its Demand Curve Model or Correct the Gas Availability and Transportation Cost Assumptions Embedded in its Demand Curve Model for TETCO M3.

To calculate net EAS revenues, the NYISO must accurately quantify a proxy peaking plants' variable costs to effectively identify the periods in which it will be operated and the revenues it will earn. It has long been established that natural gas costs are one of the single biggest cost drivers and, thus, designation of a viable natural gas hub to obtain representative gas pricing for each zone is essential. To determine the natural gas hub for each zone that best represents the expected long-run equilibrium between gas and electricity markets, the Consultants have applied the same four-factor analysis in this DCR process and in the prior DCR process: (1) market dynamics – the correlation of the gas hub to a zone's locational based marginal prices ("LBMPs") and whether the hub price reflects long term prices and not simply short term arbitrage opportunities in the zone; (2) liquidity – the depth of historical data at that gas hub which reflects sufficient trading volumes over time; (3) precedent/continuity – the use of the gas hub for similar purposes in previous NYISO planning and market studies; and (4) geography – the geographic relationship to potential peaking plant locations and whether there is a logical nexus at relevant delivery points.[77]

In the last DCR process, the NYISO selected a single hub for both Zone G proxy peaking plants, Iroquois Zone 2. In the current DCR process, AGI reversed its recommended Iroquois Zone 2 as the single gas hub for this zone and instead recommended separate gas hubs for Zone G-Dutchess and Zone G-Rockland. AGI and the MMU recommended, and the NYISO selected, TETCO M3, a delivery point on the Texas Eastern Pipeline ("TETCO"), plus a $0.27/MMBtu

[77] NYISO Filing at PP 34–35; Consultants' Final Report at PP 90–92; AG Affidavit at ¶ 59–60.

transportation adder for the Zone G-Rockland proxy peaking plant natural gas hub because the TETCO pipeline ends in New Jersey so the Zone G-Rockland proxy peaking plant must be able to secure adequate transportation service at the price proposed by the NYISO.

AGI, the MMU and the NYISO collectively have failed to consider all relevant gas system data. Nor have any of them quantified the significant premiums that attach to transportation service taken on secondary basis during peak operating conditions on the gas system. The NYISO has not met its burden of demonstrating that designating TETCO M3 as the gas hub for the Zone G-Rockland County proxy peaking unit is just and reasonable. Neither AGI nor the NYISO provided any independently developed analyses to support their recommendation. Evidence provided in the affidavit of Anthony Scott, Managing Director of Analytics & Consulting Services for BTU Analytics, LLC, submitted in support of, and attached to, the protest of GenOn Bowline, LLC and GenOn Energy Management, LLC (collectively, "GenOn"), demonstrates that the proxy peaking plant in Rockland County cannot reasonably expect to secure gas on the TETCO M3 during peak winter periods at the price designated from any source and, thus, its selection was erroneous.[78] Mr. Scott further demonstrates that Iroquois Zone 2 continues to satisfy the four criteria established by the Analysis Group and it is better correlated with Zone G LBMPs than TETCO M3.[79] Therefore, the Commission should reject the NYISO's selection of TETCO M3 as the gas hub for the Zone G-Rockland proxy peaking plant and direct the NYISO to designate Iroquois Zone 2 as the gas hub.

During the 2016 DCR process, AGI determined that a single gas hub should be chosen for both Zone G proxy peaking plants because it "reflect[ed] a balance of considerations,

[78] Docket No. ER21-502-000, *supra*, Limited Protest of GenOn Bowline, LLC and GenOn Energy Management, LLC (Dec. 21, 2020), Attachment 1, Affidavit of Anthony Scott ("Scott Affidavit").

[79] Scott Affidavit at ¶¶ 95-101.

including an assessment of a reasonable expectation of the long-run equilibrium between gas and electricity markets."[80] Expressly finding that NYISO's Zone G determination, in particular, was just and reasonable, the Commission determined the NYISO had reasonably weighed the options and agreed with the NYISO's assessment of the importance of the correlation of natural gas prices at the selected hubs with LBMPs for the relevant load zone and its emphasis on trading history and activity.[81]

AGI's departure from the Commission-approved Iroquois Zone 2 for Zone G-Rockland in this DCR process, and its selection of TETCO M3 instead, is flawed. As Mr. Scott demonstrates, there is generally no interruptible transportation service on the Algonquin pipeline to deliver TETCO M3 gas to the proxy peaking unit during the peak summer and winter periods.[82] Instead, gas flows to New England local distribution companies and utilities under firm transportation contracts that include no notice service requirements that Algonquin must honor under its FERC-approved tariff by reserving capacity on its system, leaving no capacity available for interruptible transportation service even in instances where service otherwise appears to be available.[83]

It is entirely unclear what, if any data, AGI relied on to reach its recommendation. For their part, the MMU and the NYISO erroneously relied on data that seems to indicate there is interruptible transportation capacity on Algonquin available during the gas day at issue when there is definitively not because they omitted Algonquin-generated interruptible transportation flag data that accounts for its no notice service tariff obligations. For the Demand Curves to

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[80] *See* Paul J. Hubbard et al., *Study to Establish New York Electricity Market ICAP Demand Curve Parameters*, AG & Lummus Consultants International, Inc. (Sept. 13, 2016), at PP 77-78.

[81] *N.Y. Indep. Sys. Operator, Inc.*, 156 FERC ¶ 61,039 (2016) at PP 80-81.

[82] Scott Affidavit at ¶¶ 40-86.

[83] *Id.* at ¶¶ 26-29.

provide sufficient revenues, the data inputs used must be both accurate and designed for the purpose identified. Compiling this data, Mr. Scott effectively demonstrates that, since the CPV Valley plant began operations in late 2018, there has been essentially no interruptible transportation service available on the Algonquin pipeline.[84] Indeed, in the peak winter months of December, January and February in the 2019/2020 winter, there were zero hours of availability across all three months.[85]

While the proxy peaking unit's role is to provide reliability under stressed system conditions, it is exactly during these periods when TETCO M3 gas is the least likely to be available for the peaking plant's operations. Indeed, it is these very same strained system conditions that also render the NYISO's new-found reliance on secondary service meritless. As the MMU itself acknowledges, entities holding secondary service will price it based on their opportunity costs.[86] As Mr. Scott demonstrates in his affidavit, during peak operating conditions, system availability will be scarce thereby permitting marketers to command a premium at the Algonquin Citygate price to sell this capacity to the Zone G-Rockland proxy peaking plant. By providing a snapshot of daily prices for a week in December, 2019, Mr. Scott demonstrates that, while AGT Citygate pricing will vary day to day, pricing across *all* days substantially exceeds the $0.27/MMBtu transportation adder.[87] Thus, even if the NYISO is correct that secondary service is an option conceptually, it is most assuredly not an option in practice during peak operating conditions at the prices they have proposed. Thus, the NYISO has not demonstrated that its natural gas designation for the G-J Zone is just and reasonable.

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[84] *Id.* at ¶¶ 51-54.

[85] *Id*. at ¶ 74.

[86] NYISO Filing, Attachment VI, Affidavit of Pallas LeeVanSchaick, at ¶ 28.

[87] Scott Affidavit at ¶¶ 20, 45-50, 90-93.

On the other hand, available information produced in this process demonstrates that Iroquois Zone 2 remains a reasonable gas hub selection consistent with the determinations made in the last reset process. It is well-correlated with LBMPs, it accounts for the geography criterion through backhaul service available on the Algonquin pipeline traveling in the much less constrained east to west direction, provides adequate trading history and activity and, because it was chosen in the last DCR and was used in the NYISO's most recent economic planning study to calculate a blended rate for this region, satisfies the precedent criterion. The Iroquois Zone 2 gas hub thus remains a just and reasonable option that should be endorsed.

Because the NYISO's currently recommended gas hub will jeopardize reliability and the NYISO has not – indeed, could not – demonstrate it is a just and reasonable designation for the Zone G-Rockland proxy peaking plant, the Commission should direct the NYISO to maintain the current gas hub in this DCR or, in the alternative, correct the gas availability and transportation cost assumptions embedded in its Demand Curve model, rerun the Demand Curve model for the Zone G-Rockland proxy peaking plant, recalculate the 2021-2022 ICAP Demand Curve for the G-J Zone accordingly and file it expeditiously with the Commission.

III. COMMENTS

A. The Commission Should Accept the NYISO's Recommendation That There Must Not Be "One-Time Adjustments" to Omit EAS Prices for the Months Affected by COVID-19.

IPPNY strongly supports the NYISO's recommendation that there be no "one-time adjustment" to the historic Net EAS revenues used for purposes of setting the reference point prices as part of this DCR process.[88] Certain stakeholders have requested that a "one-time adjustment" be made to exclude any EAS market prices for the period September 1, 2019

[88] NYISO Filing at P 46.

through August 31, 2020 as a result of the COVID-19 pandemic. The request, if granted, would suppress the resulting higher reference point prices that appropriately balance the loss of EAS revenues that occurred during the period in question. This balancing was an intentional design element of the Annual Update process as accepted as just and reasonable by the Commission in its 2016 order accepting revisions to the DCR process. Specifically, the Commission determined that annually updating the DCR process would "reduce the potential for significant changes in the values of the ICAP demand curves from one reset to the next, a benefit that will promote greater stability and predictability of future capacity market outcomes to the benefit of all market participants and potential developers."[89]

Updating the Demand Curves using the most recent historic conditions is also necessary to assure that the Demand Curves are designed to provide the missing money that suppliers are unable to derive from EAS revenues. Likewise, the historic three-year approach was lauded as a far more transparent and predictable mechanism that would permit stakeholders to tabulate Net EAS revenues.[90] Throwing out years where those revenues are suppressed by market conditions on a one-off basis overrides the Demand Curve's ability to provide the missing money. In addition, it would stymie the very transparency this enhancement was designed to foster, leaving stakeholders to face the same "black box" as in the past, just under a different name. Such action would thus indisputably result in Demand Curves that are not just and reasonable.

Suppliers have been, and continue to be, harmed by low EAS revenues in this COVID-19 period and depend on just and reasonable determinations of ICAP market revenues to weather these periods of low EAS prices so that they may continue to contribute to resource adequacy

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[89] *N.Y. Indep. Sys. Operator, Inc.*, 156 FERC ¶ 61,039 (2016) at P 27.

[90] *Id*. at P 29.

requirements over the long term. When the 2016-2017 winter Polar Vortex resulted in historically high EAS prices, those market conditions were appropriately reflected without adjustment in the Annual Update process for the 2017-2021 Demand Curves, resulting in lower reference point prices for a portion of this first four-year DCR period under this new structure. No exception to the NYISO's tariff was made at that time to omit those high EAS prices as a one-off anomaly, and it would be unjust and unreasonable to do so now for a period with low EAS revenues. The Commission should reject any requests that the NYISO implement a "one-time adjustment" to the Annual Update process.

B. The Commission Should Accept the NYISO's Recommendation That the Zone G Dutchess County Proxy Peaking Unit Include Dual Fuel and SCR Emissions Control Technology.

IPPNY strongly supports the Board's concurrence with the recommendations of the NYISO Staff, MMU, and the Consultants that the determinations reached in the last DCR process to include dual fuel capability for the proxy peaking unit in the G-J Locality remains just and reasonable, and, thus, the proxy peaking units should continue to be configured with dual fuel capability in this zone. As the NYISO notes, the G-J Locality ICAP Demand Curve has used a dual fuel peaking plant since its inception and the Commission has rejected arguments that the peaking plant in the Locality be gas only in the last two DCRs.[91] The need for siting flexibility in this part of the system, which continues to be highly constrained, and reliance on natural gas as the predominant fuel remain key considerations supporting the need for dual fuel capable proxy units in the G-J Locality. Indeed, as reflected in the NYISO Filing, dual fuel capability in this area of the State has only become more pronounced in the intervening three years since the last reset process due to the anticipated loss of 1,800 MW of peaking facilities

[91] NYISO Filing at PP 17-18.

resulting from the New York State DEC's Peaker Rule and the increasing constraints in the natural gas system as evidenced by certain local gas distribution corporations imposing restrictions on service to new gas customers in 2019.[92]

IPPNY also strongly supports the Board's concurrence with the recommendations of the NYISO Staff, MMU, and the Consultants that the Zone G Dutchess County proxy peaking unit include SCR emissions control technology for the purpose of setting Net CONE. As the NYISO correctly acknowledges, a dual-fuel plant design has not been proposed without SCR emissions controls in any prior reset, and run-time emissions limitations for the proxy peaking unit (GE 7HA.02) when burning oil would limit annual operation to as little as 312 hours in Zone G Dutchess County.[93] The NYISO's determination that such a severe limitation is not practical for a resource needed to maintain reliability is sound. It would be unreasonable to suggest that the proxy peaking unit should be designed to *limit* its run hours in lieu of installing SCR emissions control technology to comply with existing environmental regulations at the same time that NYISO studies recognize the heightened need for more flexible dispatchable resources to balance the higher penetration of intermittent resources mandated by the State on the system in the future. The NYISO is actively developing market products to value increased flexibility in operation of dispatchable resources to meet State public policy goals and there is every indication that additional emission restrictions may well be implemented before the State reaches its carbon-free end state in 2040.

Moreover, the Consultants and the MMU rightfully acknowledge that the decision to install SCR emissions controls goes beyond simple economic considerations. It is very likely

[92] *Id.* at PP 18-19.

[93] NYISO Filing at P 16.

that equipping a facility with the most state of the art emissions controls will be a prerequisite for any developer seeking local and State permits. As the MMU suggests, recent Article 10 siting processes suggest that a new plant in Zone G can expect intense local opposition and may regard proposing SCR technology as a necessity.[94] A key purpose of the Demand Curves is to provide market resources with the price signals needed to meet reliability requirements. Therefore, it is critical that the proxy unit include all costs that a developer would likely face. If the developer is highly unlikely to be able to build without including SCR emissions controls on the proxy peaking unit, the proxy peaking unit must include those assumptions because there is no alternative where SCR is not included. For the foregoing reasons, the Commission should accept the NYISO's proposal to include SCR emission control technology on the Zone G Dutchess County proxy peaking unit.

C. The Commission Should Accept the NYISO's Recommendation That a Dual TGP Z4 (200L)/Niagara Gas Hub Approach be Used in the Non-Winter and Winter Months, Respectively, for Purposes of Calculating Net EAS Revenues for the Zone C Proxy Peaking Unit.

IPPNY supports the NYISO's recommendation to use a dual gas hub approach for purposes of calculating the Net EAS revenues for the Zone C proxy peaking unit as opposed to AGI's recommendation that TGP Z4 (200L) be the sole gas hub for Zone C.[95] It would be unreasonable to select TGP Z4 (200L) for Zone C during the winter months because it does not meet the four selection criteria established by AGI: Market Dynamics; Liquidity; Geography; and Precedent. AGI defines Market Dynamics as:

> [t]he gas index should reflect gas prices consistent with [Location Based Marginal Prices [("LBMPs")], recognizing that other factors such as transmission congestion also influence the frequency and level of spikes in LBMPs. Ideally, the gas index used in peaking plant net EAS revenues calculations would reflect a

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[94] *See* MMU DCR Comments at P 12.

[95] NYISO Filing at P 36.

> long-term equilibrium rather than short-run arbitrage opportunities created due to near-term or transitory natural gas system conditions.[96]

As the MMU demonstrated in its comments submitted in response to the Consultant's Draft Report and Staff's draft recommendations, TGP Z4 (200L) alone exhibits a poorer correlation between gas prices and LBMPs than does the current gas hub, TETCO M3, due to its geographic disconnect from New York State and the congestion costs that would be incurred transporting that gas to the Zone C proxy peaking unit.[97] The correlation issue is largely driven by the deviation between TGP Z4 (200L) gas prices and Zone C LBMPs in the winter months. The MMU confirmed that purchases of gas at TGP Z4 (200L) may not be readily accessible in the winter due to pipeline constraints, *i.e.*, that generators in Zone C cannot easily get transportation from TGP Z4 (200L) during winter months.[98] The MMU recommended, and Staff supported in its Final Recommendations, that designation of the Niagara gas hub during these periods of pipeline constraints, which occur between December and March, results in superior Market Dynamics than if TGP Z4 (200L) was used alone.[99] Unless this issue is addressed, it will result in misalignment between gas costs and LBMPs. The Commission should thus accept the NYISO's recommendation in this regard because it reflects real-world limitations on the gas system in the form of congestion on TGP Z4 (200L).

IV. CONCLUSION

For the foregoing reasons, IPPNY respectfully requests that the Commission direct the NYISO Staff to make the requested revisions to the Demand Curve assumptions to produce just

[96] Consultants' Final Report at P 91.

[97] MMU DCR Comments at PP 10-15.

[98] *Id*.

[99] NYISO Staff Final Recommendations at PP 34-36.

and reasonable 2021-2022 ICAP Demand Curves and parameters and methodology to calculate just and reasonable Demand Curves for 2022-2025.

Respectfully submitted,

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Dated: December 21, 2020

CERTIFICATE OF SERVICE

I hereby certify that on this day, I served the foregoing document by electronic mail or first-class mail upon each person designated on the official service list compiled by the Secretary to the Commission in this proceeding.

David B. Johnson
David B. Johnson

Dated: December 21, 2020

EXHIBIT 1

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

	)	
New York Independent System Operator, Inc.	**)**	**Docket No. ER21-502-000**
	)	

AFFIDAVIT OF DAMON ANDERSON

1. My name is Damon Anderson. I am employed as the Vice President-Commercial for Advanced Power Services (NA) Inc. ("Advanced Power"). Advanced Power is a part owner and asset manager for Cricket Valley Energy Center, LLC ("CVEC"), a New York limited liability company. CVEC is the owner of a 1,100 MW gas-fired combined cycle generation facility (the "Facility") located in Dover, New York in Dutchess County. My business address is 155 Federal St., 17th Floor, Boston, MA 02110.

2. CVEC sells the output of its Facility into the New York Independent System Operator, Inc.'s ("NYISO") wholesale energy and capacity markets. CVEC also participates in the NYISO stakeholder process to voice CVEC's interest in ensuring that NYISO rules and tariffs create stable and effective markets. I advocate on behalf of CVEC at the NYISO, the New York State Public Service Commission ("NYPSC"), and the Federal Energy Regulatory Commission ("Commission") regarding NYISO market issues. My responsibilities include managing the daily energy and capacity hedging activities for CVEC (as well as for other generation projects for which Advanced Power is the asset manager) and reviewing all energy and capacity market design issues at the NYISO.

3. I actively participated in the NYISO stakeholder process regarding the NYISO's

development of proposed tariff revisions to its Market Administration and Control Area Services Tariff that define new installed capacity ("ICAP") Demand Curves applicable for the 2021/2022 Capability Year and establish the parameters for conducting the annual updates to determine the Demand Curves for the 2022/2023, 2023/2024, and 2024/2025 Capability Years. The NYISO filed its proposed Demand Curves with the Commission on November 30, 2020 in the above-captioned docket.[1] Specifically, I provided comments to NYISO, the NYISO's independent Demand Curve consultants and the NYSIO Board of Directors on CVEC's development costs, hedge costs, financing parameters, including return on equity, and financing costs for the proxy peaking plant in the G-J Locality.

4. I submit this affidavit to support the Protest and Supporting Comments of Independent Power Producers of New York, Inc. ("IPPNY") on the NYISO Filing. IPPNY has asked me to address the NYISO's incorrect assumptions regarding development and hedging costs for gas fired generation plants in New York. For the reasons I explain below, NYISO's ICAP Demand Curve assumptions with respect to development costs and hedging costs for gas fired generation plants in New York are significantly flawed, do not reflect our experience with the recent development of CVEC's Facility.

<u>CVEC Hedging Costs</u>

5. During the structuring of the CVEC construction financing, CVEC's lenders demanded hedges be put in place to ensure there was adequate contracted debt service coverage before the lenders would enter into a credit agreement providing debt financing for

[1] Docket No. ER21-502-000, *New York Independent System Operator, Inc*., 2021-2025 ICAP Demand Curve Reset Proposal (Nov. 30, 2020) ("NYISO Filing").

construction of the CVEC facility. CVEC met this condition by purchasing a hedge in the form of a revenue put ("RP") at the financial close and start of construction from a financial counterparty. The RP has become a standard product for the past several years to reduce risk for project financed generating assets. At Advanced Power we caused our three gas fired generation facilities over the last six years which were project-financed to enter into RP hedges to provide margin protection for the project lenders.

6. The RP is a financial hedge product that provides an annual energy margin floor for the CVEC project for the first five years of operation after the commercial operation date. The RP is similar to an insurance policy purchased by CVEC for the benefit of the lenders to ensure CVEC has sufficient funds to pay lenders the quarterly principal and interest due under the CVEC credit agreement. The RP settlement calculation is a look back calculation to estimate the margin generated by CVEC during the previous quarter. If calculated margins are below the floor price of the RP, the counterparty of the RP will pay CVEC up to the RP floor price.

7. CVEC paid $73,000,000 for the RP hedge at the financial closing of the CVEC Facility. This was the cost to secure a minimum of $48,000,000 in energy margin per year for the first five years of operation. It guaranteed there would be at least $240 million in energy margin in the first 5 years of operation. The cost of this RP hedge was a substantial cost that accounted for approximately 5% of the $1.5 billion cost of the CVEC Facility.

8. CVEC's lenders required it to purchase the RP as a condition to obtaining construction financing to guarantee that CVEC can pay its debt service and avoid default. Because of the uncertainties of the NYISO markets, particularly the lack of a forward capacity market, CVEC's lenders required that CVEC have contracted revenues in the form of a

RP floor and capacity to cover 1.4 times its debt service to give the lenders confidence in CVEC's ability to pay debt service. CVEC would not have been able to obtain financing if it did not purchase the RP.

9. CVEC provided the cost of its RP to the NYISO during the DCR stakeholder process. Likewise, CVEC submitted the cost of the RP in its Buyer Side Market Power Mitigation filings to the NYISO as part of the Class Year interconnection process. However, the NYISO's proposed Demand Curves do not reflect hedge costs of this magnitude. Indeed, the NYISO's independent consultant, The Analysis Group, indicated that it assumed the credit quality for the proxy peaking plant comparable to that of a B rated firm given the absence, among other things, "of an explicit cost assumption for the potential need to execute a financial hedge to secure debt financing."[2]

10. Based on Advanced Power's experience in financing the CVEC Facility in New York and financing two similar gas fired generation projects using similar financial structures in PJM Interconnection, L.L.C., the capital costs of the proxy peaking unit should include the cost of an RP or similar hedge to provide a margin floor equal to 3 to 5% of the total cost of the peaking unit. This is a conservative assumption that reflects the current, real word financial structures and risk management vehicles that are now being demanded by lenders to provide the financing for new construction of merchant generation in the NYISO market.

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[2] Affidavit of Paul J. Hibbard, Dr. Todd Schatzki, Charles Wu, and Christopher Llop at P 75 (attached as Attachment III to NYISO Filing).

CVEC Development Costs

11. Based on CVEC's direct experience through the 10 years of developing a gas fired generator in New York, the NYISO Demand Curve assumptions do not fully account for the substantial costs of development of a gas fired generation in New York State. The NYISO estimated the costs associated with development of a gas fired generation facility in NYISO Zone G – Dutchess as only $370,000 for Owner's Project Development and $1,000,000 for Owners Permitting and Licensing Fees. These costs grossly underestimate the actual costs that CVEC incurred for the development, permitting and financing of its Facility in New York.

12. CVEC's development cost spending was significantly higher due to the rigorous, costly, lengthy and difficult New York permitting process. In total, CVEC spent $37,200,000 over 9 years to develop the CVEC facility to the point that it achieved financial close and began construction. This is approximately **10 times** the development costs estimated by the NYISO.

13. The development costs of the reference plant should be increased to reflect the actual development costs than have been incurred by recent new gas fired generation facilities constructed in New York. I also note that even though the reference unit is a single gas turbine peaking unit and the Facility is a larger combined cycle gas unit, the work necessary to complete the permitting process for a single gas turbine unit will not be significantly less than for a larger combined cycle gas unit given New York's very difficult regulatory environment imposed on gas fired generators.

14. This concludes my affidavit.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

	)	
New York Independent System Operator, Inc.	**)**	**Docket No. ER21-502-000**
	)	

I declare under penalty of perjury under the laws of the United States of America that the forgoing is true and correct.

Executed on: December 21, 2020

/s/ Damon Anderson

EXHIBIT 2

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

	)	
New York Independent System Operator, Inc.	**)**	**Docket No. ER21-502-000**
	)	

AFFIDAVIT OF LIAM BAKER

1. My name is Liam Baker. I am employed as the Vice President, Regulatory Affairs for Eastern Generation, LLC ("Eastern"). Eastern indirectly, wholly owns and operates the Astoria Generating Station, Gowanus Gas Turbines and the Narrows Generating Station which are located in New York City, Zone J, and have a combined total generating capability of approximately 2,000 MW (the "Facilities"). My business address is 300 Atlantic Street - 5th Floor Stamford, Connecticut, 06901-3522.

2. I received a Bachelor of Science in Mechanical Engineering from Manhattan College, a Bachelor of Arts in Liberal Arts from Fairfield University and a Juris Doctor from Pace University School of Law. I am admitted to practice law in New York and Connecticut.

3. Eastern sells the output of its Facilities into the New York Independent System Operator, Inc.'s ("NYISO") wholesale energy and capacity markets. My responsibilities include overall business operations related to the Facilities, regulatory affairs and regulatory and market issues involving the NYISO, the New York State Public Service Commission, and the Federal Energy Regulatory Commission ("Commission"). Since 1999, I have also had general responsibility for matters that impact or affect the real property associated with the Facilities, *i.e.* easements, encroachments, transactions, etc.

4. I actively participated in the NYISO stakeholder process regarding the NYISO's development of proposed tariff revisions to its Market Administration and Control Area Services Tariff that define new installed capacity ("ICAP") Demand Curves applicable for the 2021/2022 Capability Year and establish the parameters for conducting the annual updates to determine the Demand Curves for the 2022/2023, 2023/2024, and 2024/2025 Capability Years. The NYISO filed its proposed Demand Curves with the Commission on November 30, 2020 in the above-captioned docket.[1] Specifically, I provided independent appraisals of the estimated value of land in New York City that is zoned for electric generation to the NYISO staff, the NYISO's independent Demand Curve consultants, Burns & McDonnell Engineering Company, Inc. ("BMCD"), and the NYSIO Board of Directors.

5. I submit this affidavit to support the Protest and Supporting Comments of Independent Power Producers of New York, Inc. ("IPPNY") on the NYISO Filing. IPPNY has asked me to address the NYISO's incorrect assumptions regarding the site leasing costs for the proxy peaking unit in Zone J. As I explain below, based on three independent appraisals of land in New York City that I recently received on behalf of Eastern, the value of land that is suitable for proxy peaking plant development in Queens and Brooklyn is roughly *double* the $270,000/acre-year cost assumed by the NYISO in its estimate of the costs of the proxy peaking plant.

6. Eastern is party to a 25-year easement granted by the New York State Department of State acting through the Office of General Services ("OGS"). The easement is for 3.969

[1] Docket No. ER21-502-000, *New York Independent System Operator, Inc*., 2021-2025 ICAP Demand Curve Reset Proposal (Nov. 30, 2020) ("NYISO Filing").

acres of land underwater upon which Eastern's Narrows Generating Station is located in Sunset Park, Brooklyn. The easement expires in 2024.

7. OGS required Eastern to contract with two local, independent appraisers – from a list provided by OGS – for the express purpose of determining how much New York State would charge Eastern to renew the easement. The original easement granted in 1999 cost $425,000 for a term of 25 years.

8. Eastern contracted with Goodman-Marks Associates, Inc. ("Goodman-Marks") and Jacques O. Tuchler & Associates, Inc. ("Tuchler"), which provided written appraisals to me on October 22, 2019 and February 10, 2020, respectively.[2] The appraisal exercise entailed valuing 6.591 acres of the upland real property so that OGS could calculate the value of a renewal of the easement associated with the land underwater.[3] Goodman-Marks valued the upland real property at $13,070,000 per acre,[4] and Tuchler valued the upland real property at $12,593,103 per acre.[5]

9. If the aforementioned appraisals were to be used in the same manner as BCMD used in the Demand Curve reset process, *i.e*. multiplying the appraised value times 5.5%, the annual lease payments would have been $718,850/acre-year and $692,620/acre-year using the Goodman-Marks and Tuchler appraisal, respectively.[6]

10. Eastern's subsidiary, Astoria Generating Company, L.P. ("AGC"), which owns the Astoria Generating Station, also obtained an independent appraisal performed by

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[2] The Goodman-Marks and Tuchler appraisals are attached hereto as Exhibits A and B, respectively.
[3] As indicated in the Goodman-Marks Appraisal, pursuant to New York State regulations State-owned land under water must be appraised based upon the value of adjacent upland. *See* cover letter to Goodman-Marks Appraisal from Goodman-Marks Associates, Inc. to Liam Baker (Nov. 6, 2019) at 2.
[4] *Id.* at 3.
[5] Cover letter to Tuchler Appraisal from Michael Silber to Liam Baker (Jan. 6, 2020) at 1.
[6] Affidavit of Matthew E. Lind and Kieran McInerney at 39, attached as Attachment IV to NYISO Filing.

Cushman & Wakefield of 4.4 acres of land adjacent to the Astoria Generating Station in Astoria, Queens, which is owned by the New York Power Authority ("NYPA").[7] Cushman & Wakefield appraised the property at $9,545,454/acre.[8] I shared this appraisal with NYISO staff, BMCD, and the NYISO Board of Directors.

11. AGC obtained this appraisal for Eastern to develop its response to a Request for Proposals ("RFP") conducted by NYPA. The RFP invited bidders to express interest in leasing the land owned by NYPA to build a new, utility scale energy storage facility if Consolidated Edison Company of New York, Inc. ("Con Edison") and the New York State Energy Research and Development Authority ("NYSERDA") awarded a long-term power purchase agreement for the output of the energy storage facility. *Thus, this appraisal was performed for the exact same reason as it is performed for the NYISO Demand Curve reset – to estimate the cost of building a new generating facility in New York City.* Eastern used the independent appraisal to inform its lease offer to NYPA. Based on the appraisal, Eastern offered to lease the land from NYPA for $522,000/acre-year, or almost exactly double the $270,000/acre-year proposed by the NYISO. The calculation used was the same as was used by BCMD.

12. NYPA accepted Eastern's lease offer, contingent on Eastern being selected by Con Edison and NYSERDA to construct the energy storage facility. Ultimately, Eastern was not selected to build an energy storage facility. The rejection had nothing to do with the lease offer, which was acceptable to NYPA.

13. This concludes my affidavit.

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[7] The Cushman & Wakefield Appraisal is attached hereto as Exhibit C.
[8] Cushman & Wakefield Appraisal at 12 ($42,000,000 divided by 4.4. acres = $9,545,454/acre).

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

	)	
New York Independent System Operator, Inc.	**)**	**Docket No. ER21-502-000**
	)	

I declare under penalty of perjury under the laws of the United States of America that the forgoing is true and correct.

Executed on: December 21, 2020

/s/ Liam Baker
Liam Baker

EXHIBIT A

Goodman-Marks Associates, Inc.
REAL ESTATE APPRAISERS AND CONSULTANTS

APPRAISAL REPORT

NARROWS GAS TURBINE FACILITY
SUNSET PARK, BOROUGH OF BROOKLYN, NEW YORK

PREPARED FOR:

Mr. Liam Baker
Eastern Generation
300 Atlantic Street, 5th Floor
Stamford, CT 06901

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Goodman-Marks Associates, Inc.

REAL ESTATE APPRAISERS AND CONSULTANTS

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NEW JERSEY OFFICE
55 MADISON AVENUE, SUITE 400, MORRISTOWN, NEW JERSEY 07960
PHONE: (973) 285-3195
www.goodmanmarks.com

November 6, 2019

Mr. Liam Baker
Eastern Generation
300 Atlantic Street, 5th Floor
Stamford, CT 06901

Re: Narrows Gas Turbine Facility
Sunset Park, Brooklyn, NY
Our File No. 19-1358

Dear Mr. Baker:

At your request, we have appraised the above-captioned property, which consists of approximately 172,884± square feet (3.969± acres) of easement area, currently underwater, contained within the Narrows Gas Turbine facility, within the Sunset Park neighborhood of the Borough of Brooklyn, in the City and State of New York. The subject easement area ("Parcel 2") has been identified on the New York City Tax Maps as adjacent to Brooklyn Block 803, Lots 10 & 150 ("Parcel 1").

"Parcel 1" is an irregular-shaped parcel located on the western front of the Borough of Brooklyn, bounded by Bay Ridge Canal on its western border, and 53rd & 54th street on its eastern border. "Parcel 1" is zoned within an M3-1 District by the City of New York and is currently improved with the Narrows Gas Turbine Facility. According to public records, "Parcel 1" is currently owned by Astoria Generating Co. "Parcel 2" is an adjacent rectangular parcel of underwater land improved with a fuel pier and a gas turbine sub-station in the Upper New York Bay.

We have been provided with a survey prepared by Merlyn J. Jenkins Associates, Inc. dated October 31, 2005 and signed on December 12, 2005, which details both "Parcel 1" (adjacent upland area) and "Parcel 2" (subject easement area). According to the provided survey, "Parcel 1" contains 287,086± square feet (6.591± acres) of gross land area and "Parcel 2" contains 172,884± square feet (3.969± acres) of gross land area. It should be noted that according to New York City tax map records, the subject tax map was subsequently revised on two (2) occasions, effective December 4, 2008 and January 10, 2014. However, at the request of our client, we have relied upon the information and the land areas reported on the provided survey in our valuation herein. Any information to the contrary may affect our valuation conclusions.

According to the provided survey, "Parcel 2" is identified as "that certain Easement for the maintenance, operation, repair and replacement of the bulkhead, piers, structures and gas turbine barges granted by the State of New York to Consolidated Edison Company of New York, Inc. by grant dated as of 8/5/99 and recorded 9/1/99 in Reel 4573 Page 913, which easement was assigned by Consolidated Edison Corporation of New York, Inc. to Astoria Generating Company, L.P. by Assignment and Assumption of Narrows Easement dated as of 8/20/99, recorded 9/1/99 in Reel 4573 Page 914."

New York State Regulation 270-6.8 notes that "State-owned land under water shall be appraised based upon the value of adjacent upland." As such, we have been requested to determine the unit value of the adjacent upland, as though vacant. New York State will then apply that unit value in-house to the area of the State-owned land under water ("Parcel 2"), subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc. Therefore, in our valuation herein, we have not applied any discounts for "Parcel 2" consisting of underwater lands and/or the property rights consisting of an easement. Furthermore, at the request of our client, we have provided a market value opinion of the underlying land for the adjacent upland property identified as "Parcel 1" only.

The purpose of this appraisal report is to provide a fee simple estate market value opinion of the underlying land of the adjacent property identified herein as "Parcel 1". The intended use of this appraisal is to assist the intended users in understanding the market value of the underlying land of the adjacent property identified herein as "Parcel 1", *predicated upon the underlying assumptions and limiting conditions contained within this report*. Our client for this assignment is Mr. Liam Baker. The intended users of this appraisal are Mr. Liam Baker and the New York State Office of General Services.

This appraisal report is intended to conform to the current Uniform Standards of Professional Appraisal Practice (USPAP), as promulgated by the Appraisal Standards Board of the Appraisal Foundation, the Code of Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.

In arriving at the appraised value, we considered items influencing value, including the location of the subject property, zoning, market operating reports for comparable facilities, comparable rental rates and land sales, as well as market trends. We did not investigate the subject property for contaminants or environmental hazards, because environmental audits must be conducted by professional environmental specialists. Should an environmental audit disclose the presence of contaminants on the subject site, this finding may affect our value estimate.

We are of the opinion that the fee simple estate market value of the underlying land of "Parcel 1", as of September 30, 2019, *predicated upon the underlying assumptions and limiting conditions as defined within the body of this report*, was:

THREE HUNDRED DOLLARS *per Sq. Ft. of Land Area*

($300.00 *per Sq. Ft. of Land Area*)

OR

THIRTEEN MILLION SEVENTY THOUSAND DOLLARS *per Acre*

($13,070,000.00 *per Acre*)

A report of 70 pages is attached hereto and made part hereof, and the valuation is expressly made subject to the conditions and comments appearing herein.

Very truly yours,

GOODMAN-MARKS ASSOCIATES, INC.

Matthew J. Guzowski, MAI, MRICS
President
Goodman-Marks Associates, Inc.
Certified General Real Estate Appraiser
New York State Certificate #468986

Matthew F. Boylan, MAI
Executive Vice President
Goodman-Marks Associates, Inc.
Certified General Real Estate Appraiser
New York State Certificate #4651008

Brently Letts
Associate
Goodman-Marks Associates, Inc.

CERTIFICATE OF APPRAISAL

Premises: Narrows Gas Turbine Facility,
Sunset Park, Borough of Brooklyn, NY

We, Matthew J. Guzowski, Matthew F. Boylan and Brently Letts, certify to the best of our knowledge and belief:

THAT, the statements of fact contained in this report are true and correct.

THAT, the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions;

THAT, we have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved;

THAT, we have performed no services, as an appraiser(s) or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment;

THAT, we have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment;

THAT, our engagement in this assignment was not contingent upon developing or reporting predetermined results;

THAT, our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal;

THAT, our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice (USPAP)*;

THAT, we have each made a personal exterior inspection of the property that is the subject of this report;

THAT, no one provided significant real property appraisal assistance to the person(s) signing this certification;

THAT, the reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute;

THAT, the use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives;

That, as of the date of this report, Matthew J. Guzowski and Matthew F. Boylan, have completed the continuing education programs for Designated Members of the Appraisal Institute and that Matthew J. Guzowski has completed the continuing education program for Designated Members of the Royal Institute of Chartered Surveyors.

DATE: November 6, 2019

Matthew J. Guzowski, MAI, MRICS
President
Goodman-Marks Associates, Inc.
Certified General Real Estate Appraiser
New York State Certificate #468986

Matthew F. Boylan, MAI
Executive Vice President
Goodman-Marks Associates, Inc.
Certified General Real Estate Appraiser
New York State Certificate #4651008

Brently Letts
Associate
Goodman-Marks Associates, Inc.

SUMMARY OF SALIENT FACTS AND CONCLUSIONS

Property Location:	Narrows Gas Turbine Facility, Sunset Park, Borough of Brooklyn, City and State of New York
Tax Map Identification:	"Parcel 1": Brooklyn Block 803, Lots 10 & 150
Current Owner of Record:	"Parcel 1": Astoria Generating Co.
Property Rights Appraised:	Fee Simple Interest
Property Description:	"Parcel 1" is an irregular-shaped parcel located on the western front of the Borough of Brooklyn, bounded by Bay Ridge Canal on its western border, and 53rd & 54th street on its eastern border. "Parcel 1" is zoned within an M3-1 District by the City of New York and is currently improved with the Narrows Gas Turbine Facility. According to public records, "Parcel 1" is currently owned by Astoria Generating Co. "Parcel 2" is an adjacent rectangular parcel of underwater land improved with a fuel pier and a gas turbine sub-station in the Upper New York Bay. We have been provided with a survey prepared by Merlyn J. Jenkins Associates, Inc. dated October 31, 2005 and signed on December 12, 2005, which details both "Parcel 1" (adjacent upland area) and "Parcel 2" (subject easement area). According to the provided survey, "Parcel 1" contains 287,086± square feet (6.591± acres) of gross land area and "Parcel 2" contains 172,884± square feet (3.969± acres) of gross land area. We have relied upon the results of this survey in our valuation herein.
Zoning:	"Parcel 1": M3-1 Heavy Manufacturing
Highest & Best Use:	*As Vacant* – Manufacturing/Industrial Facility. *As Improved* – N/A
Valuation Date:	September 30, 2019

MARKET VALUE CONCLUSIONS

Cost Approach:	N/A	
Income Capitalization Approach:	N/A	
Sales Comparison Approach:	$300.00 *per square foot*	$13,070,000.00 *per acre*
Final Estimate of Market Value:	**$300.00 *per square foot***	**$13,070,000.00 *per acre***

UNDERLYING ASSUMPTIONS AND LIMITING & QUALIFYING CONDITIONS

1. This report is intended to comply with the reporting requirements set forth under Standards Rule 2-2(a) of the Uniform Standards of Professional Appraisal Practice for an appraisal report. The information contained in this report is specific to the needs of the client and for the intended use stated in this report. We are not responsible for unauthorized use of this report.
2. No responsibility is assumed for legal or title considerations. Title to the property is assumed to be good and marketable unless stated otherwise in this report.
3. The property was appraised free and clear of any or all liens and encumbrances unless stated otherwise in this report.
4. Responsible ownership and competent property management are assumed unless stated otherwise in this report.
5. The information furnished by others for the appraised property is believed to be reliable. However, no warranty is given for its accuracy.
6. All engineering is assumed to be correct. Any plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.
7. It is assumed that there are no hidden or unapparent conditions of the property, subsoil or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.
8. It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless stated otherwise in this report.
9. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a nonconformity has been stated, defined and considered in this report.
10. It is assumed that all required licenses, Certificates of Occupancy or other legislative or administrative authority from any local, state or national government or private entity have been or can be obtained or renewed for any use on which the value estimates contained in this report are based.
11. Any sketch in this report may show approximate dimensions and is included to assist the reader in visualizing the property. Maps and exhibits found in this report are provided for reader reference purposes only. No guarantee as to accuracy is expressed or implied unless stated otherwise in this report. No survey has been made for the purpose of this report.
12. It is assumed that the utilization of the land and improvements is within the boundaries or property lines of the property described, and that there is no encroachment or trespass unless stated otherwise in this report.
13. We are unaware of any easements or encumbrances that substantially impact the subject property. However, we have not been provided with a title report and if in the event such report detailed the existence of an otherwise unknown easement or encumbrance, the value conclusion contained herein may be subject to change.

14. We are not qualified to detect hazardous waste and/or toxic materials. Any comment by us that might suggest the possibility of the presence of such substances should not be taken as confirmation of the presence of hazardous waste and/or toxic materials. Such determination would require investigation by a qualified expert in the field of environmental assessment. The presence of substances such as asbestos, urea-formaldehyde foam insulation or other potentially hazardous materials may affect the value of the property. Our value estimate(s) is predicated on the assumption that there is no such material on or in the property that would cause a loss in value unless stated otherwise in this report. No responsibility is assumed for any environmental conditions or any expertise or engineering knowledge required to discover them. Our descriptions and comments are the result of our routine observations made during the appraisal process.

15. Unless stated otherwise in this report, the subject property was appraised without a specific compliance survey having been conducted to determine whether the property is or is not in conformance with the requirements of the Americans with Disabilities Act (ADA). The presence of architectural and communications barriers that are structural in nature that would restrict access by disabled individuals may adversely affect the property's value, marketability or utility.

16. Any proposed improvements are assumed to be completed in a good and workmanlike manner in accordance with the submitted plans and specifications, and conforming to all municipal, building and health codes.

17. Our value conclusions were based on the assumption that the subject property will continue to be adequately maintained and professionally managed to sustain its competitiveness in the marketplace.

18. The distribution, if any, of the total valuation in this report between land and improvements applies only under the stated program of utilization. The separate allocations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.

19. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraiser(s), and in any event, only with properly written qualification and only in its entirety.

20. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraiser(s) or the firm with which the appraiser(s) is/are connected) shall be disseminated to the public through advertising, public relations, news sales or other media without the prior written consent and approval of the appraiser(s).

APPRAISAL DEFINITIONS

Market Value [1]

"The most probable price that a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale." (12 C.F.R. Part 34.42(g); *55 Federal Register* 34696, August 24, 1990, as amended at *57 Federal Register* 12202, April 9, 1992; *59 Federal Register* 29499, June 7, 1994.)"

Fee Simple Estate [2]

"Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat."

Intended Use [3]

"The use(s) of an appraiser's reported appraisal or appraisal review assignment results, as identified by the appraiser based on communication with the client at the time of the assignment."

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1 *The Dictionary of Real Estate Appraisal – Sixth Edition*, Appraisal Institute, Chicago, IL, 2015, p. 142.

2 *Ibid*, p. 90.

3 *Uniform Standards of Professional Appraisal Practice (USPAP) 2018-2019 Edition*, The Appraisal Foundation, Washington, DC, 2018, p. U-5.

Intended User [4]

"The client and any other party as identified, by name or type, as users of the appraisal or appraisal review report by the appraiser, based on communication with the client at the time of the assignment."

Extraordinary Assumption[5]

"An assignment-specific assumption as of the effective date regarding uncertain information used in analysis. which, if found to be false, could alter the appraiser's opinions or conclusions. Comment: Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis.

4 *Uniform Standards of Professional Appraisal Practice (USPAP) 2018-2019 Edition*, The Appraisal Foundation, Washington, DC, 2018, p. U-5.

5 *Uniform Standards of Professional Appraisal Practice (USPAP) 2018-2019 Edition*, The Appraisal Foundation, Washington, DC, 2018, p. U-4.

VALUATION DATE

The date of valuation is September 30, 2019; the date of the inspection of the subject property.

PURPOSE OF THE APPRAISAL

The purpose of this appraisal report is to provide a fee simple estate market value opinion of the underlying land of the adjacent property identified herein as “Parcel 1”.

INTENDED USE AND USERS OF THE APPRAISAL

The intended use of this appraisal is to assist the intended users in understanding the market value of the underlying land of the adjacent property identified herein as “Parcel 1”, predicated upon the underlying assumptions and limiting conditions contained within this report. Our client for this assignment is Mr. Liam Baker. The intended users of this appraisal are Mr. Liam Baker and the New York State Office of General Services.

IDENTIFICATION OF THE SUBJECT PROPERTY

The subject property consists of approximately 172,884± square feet (3.969± acres) of easement area, currently underwater, contained within the Narrows Gas Turbine facility, within the Sunset Park neighborhood of the Borough of Brooklyn, in the City and State of New York. The subject easement area (“Parcel 2”) has been identified on the New York City Tax Maps as adjacent to Brooklyn Block 803, Lots 10 & 150 (“Parcel 1”). Furthermore, at the request of our client, we have provided a market value opinion of the underlying land for the adjacent upland property identified as “Parcel 1” only.

SUBJECT PROPERTY OWNERSHIP HISTORY

According to public records, “Parcel 1” is owned by Astoria Generating Co. There have been no arm’s-length sales or transfers of the aforementioned parcels within the last five (5) years, nor are we aware of any current contracts or listings for sale.

EXPOSURE TIME

Exposure time is generally defined as 1) The time a property remains on the market. 2) The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; <u>Comment</u> Exposure time is a retrospective opinion based on an analysis of past events assuming a competitive and open market."[6]

As an individual property, the exposure time is dependent on the willingness of a party able to utilize the property, to have interest in purchasing the property. Were the subject property available for sale, we estimate that the exposure time would have been approximately one (1) year.

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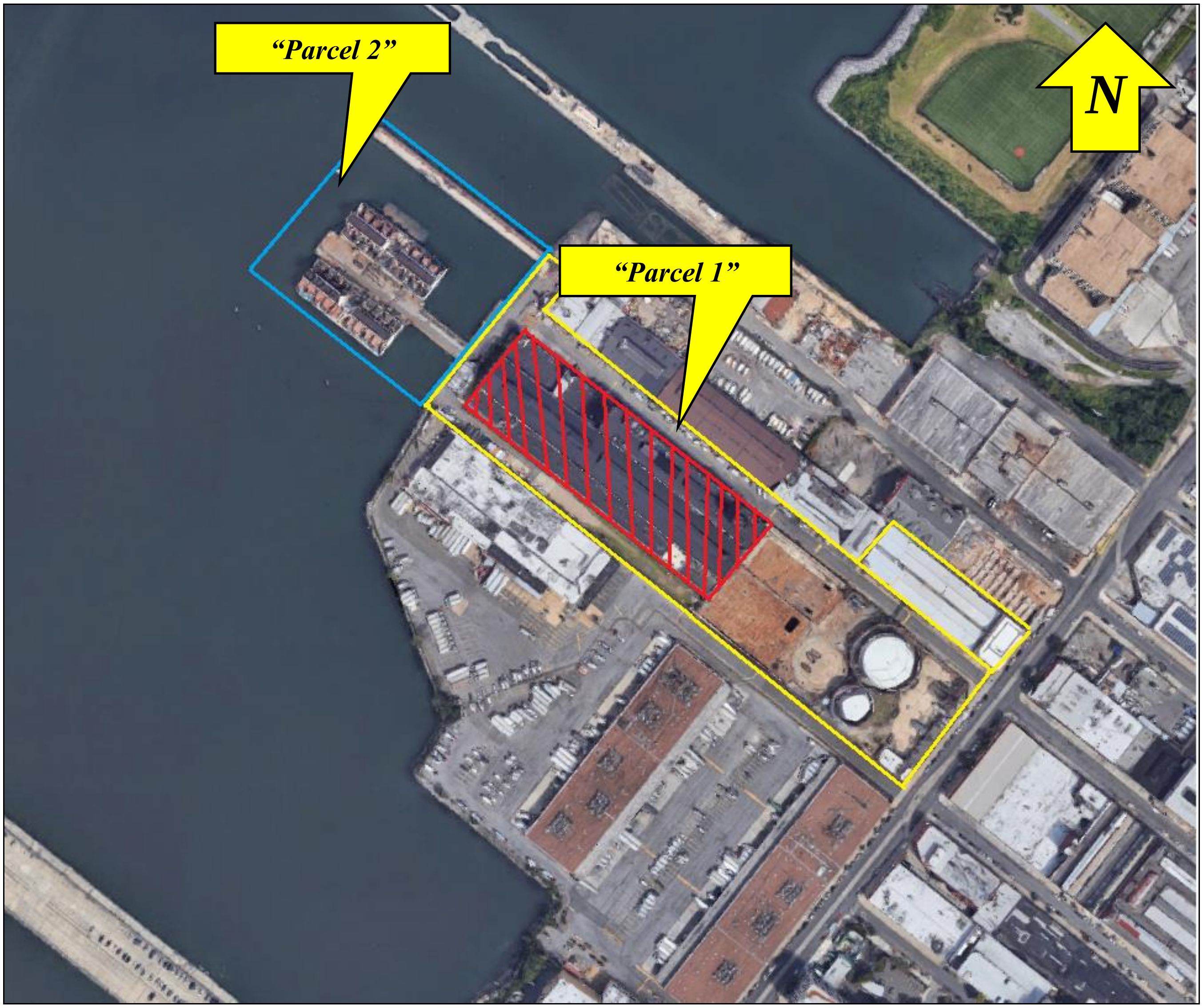
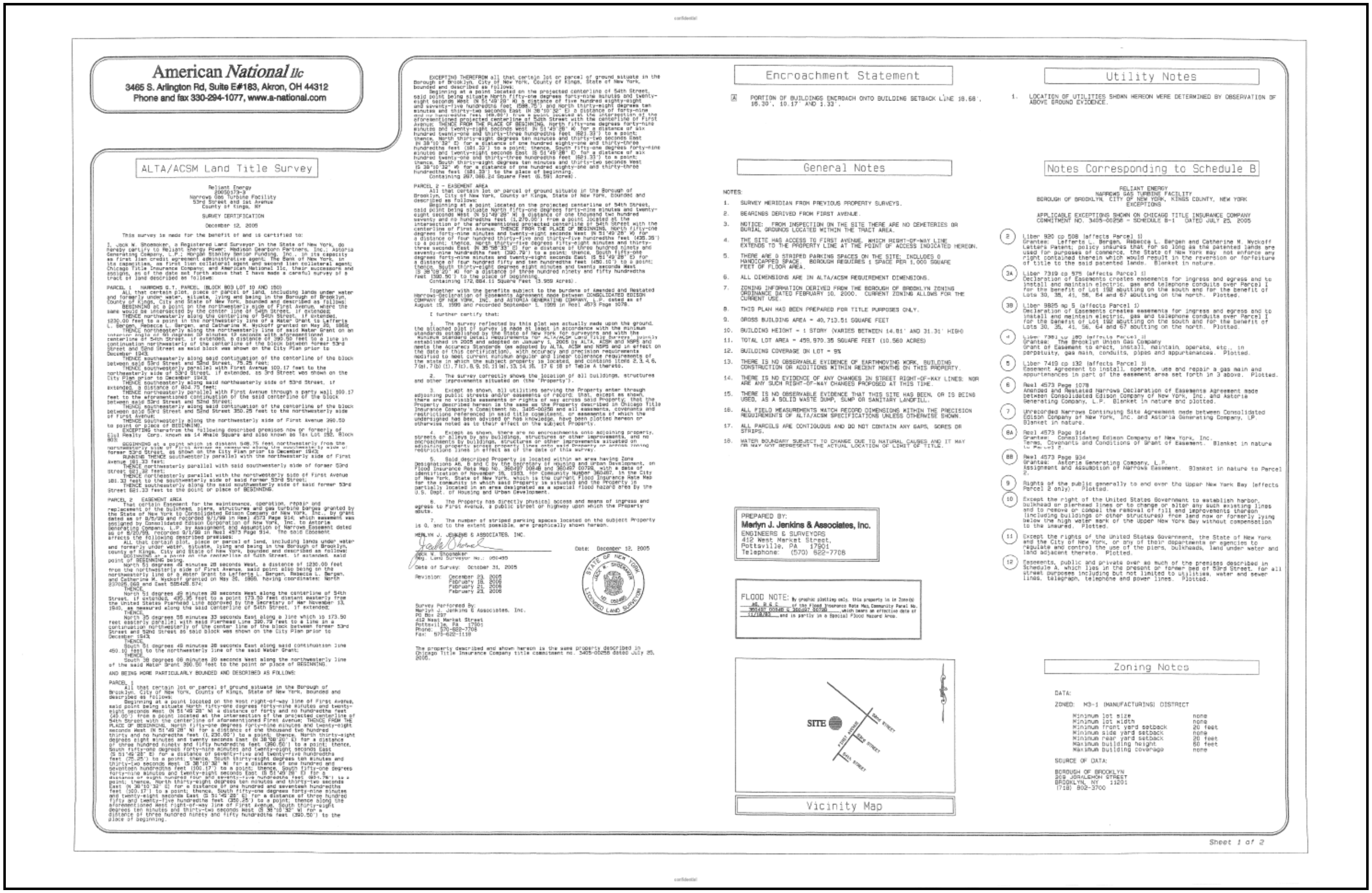
6 *The Dictionary of Real Estate Appraisal - Sixth Edition*, Appraisal Institute, Chicago, IL, 2015, p 83.

AERIAL VIEW OF SUBJECT PROPERTY

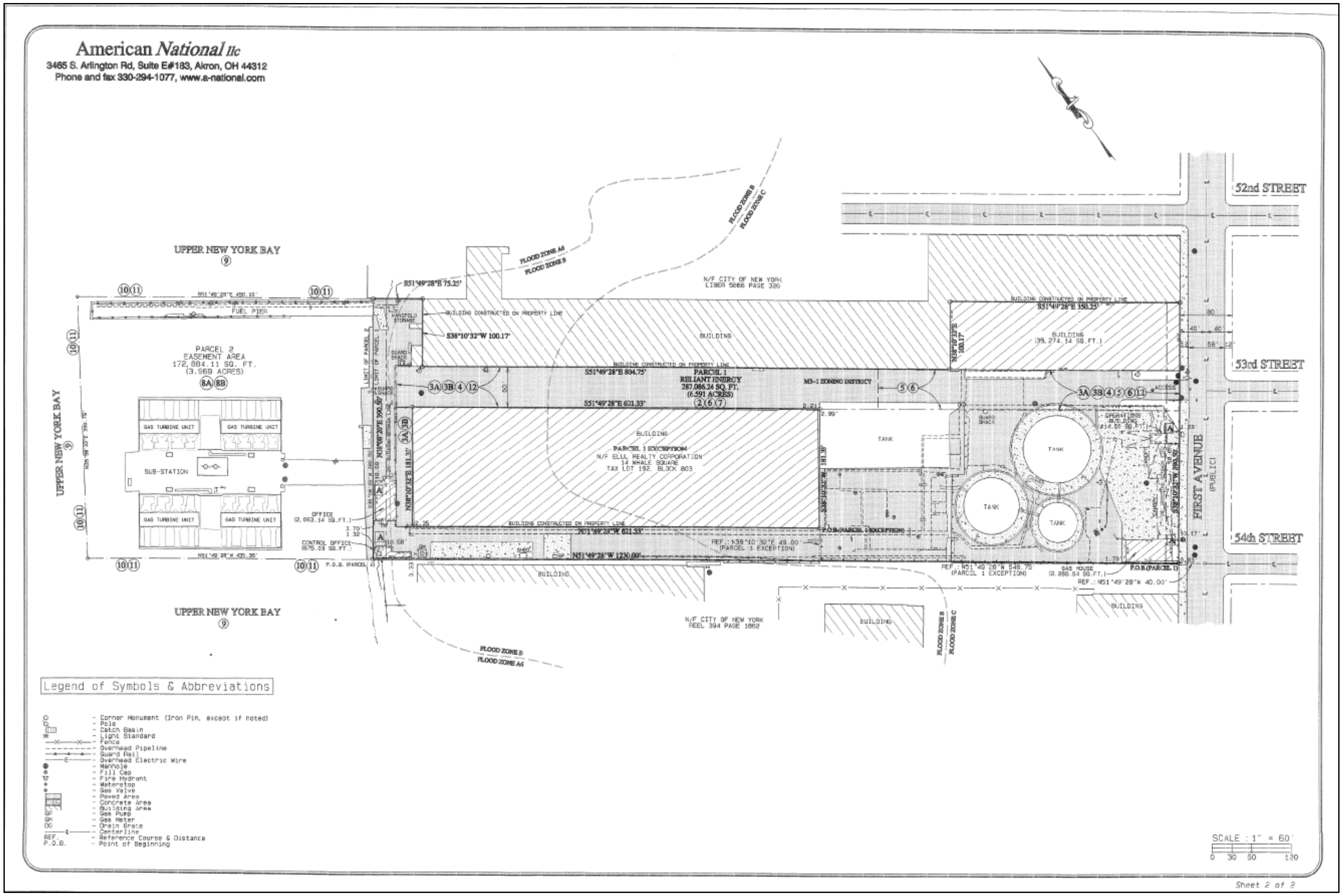


Boundaries estimated by appraiser, based upon our review of the provided survey drawings. It is noted that the estimated outlines do not appear to match the current tax map per New York City records, as discussed herein.

LAND SURVEY


American National llc
3465 S. Arlington Rd, Suite E#183, Akron, OH 44312
Phone and fax 330-294-1077, www.a-national.com
ALTA/ACSM Land Title Survey
Encroachment Statement
Utility Notes
General Notes
Notes Corresponding to Schedule B
Merlyn J. Jenkins & Associates, Inc.
SITE
Vicinity Map
Zoning Notes
Sheet 1 of 2

LAND SURVEY
(continued)



PHOTOGRAPHS OF THE SUBJECT PROPERTY

Views of "Parcel 2" (Looking West)

PHOTOGRAPHS OF THE SUBJECT PROPERTY
(Continued)

Views of "Parcel 1" (Looking West)

SCOPE OF THE APPRAISAL & METHOD OF VALUATION

There are three generally accepted methodologies in the valuation of real estate: the *Cost Approach*, *Income Capitalization Approach* and *Sales Comparison Approach*. In all valuation methods, local market data is sought, when appropriate, for sales and offerings of vacant lots and similar properties, current prices of construction materials and labor, operating expenses over absorption periods and current rates of return on investments. From this data, value estimates may be developed for the land. The scope of this assignment included researching current sales, as well as surveying brokers, appraisers, lenders, building owners, managers and public records.

In estimating the market value of the subject property, we have considered the three approaches to value:

Cost Approach

The *Cost Approach* assumes that an informed purchaser would pay no more for a property than the cost of producing a similar investment. This approach entails estimating the value of the land as if vacant, which is then added to the depreciated value of the improvements. This is considered a valid indicator when the property is new and there are a sufficient number of land sales.

We have not performed the *Cost Approach* in this appraisal report because the subject property consists of a land currently underwater (i.e., vacant land).

Income Capitalization Approach

The *Income Capitalization Approach* values the future benefits (in the form of steady income) from an income-producing property by measuring the potential net income received. This approach is significant in determining the market value of a property where investors purchase the income-producing real estate for its earning power.

The *Income Capitalization Approach* to value has not been performed in this appraisal since the property consists of currently underwater land (i.e., vacant land), which is not a typical income producing property type.

Sales Comparison Approach

The major premise of the *Sales Comparison Approach* is the principle of substitution, which states that an informed and knowledgeable purchaser would pay no more for a property than the cost of acquiring an existing property with similar investment features. We have employed the *Sales Comparison Approach* in this assignment.

New York State Regulation 270-6.8 notes that "State-owned land under water shall be appraised based upon the value of adjacent upland." As such, we have been requested to determine the unit value of the adjacent upland, as though vacant. New York State will then apply that unit value in-house to the area of the State-owned land under water ("Parcel 2"), subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc.

We have identified a number of meaningful transfers of similar zoned land sales in the subject's market area, which we have relied upon to develop an opinion of the fee simple estate market value of the subject property. The process required us to individually analyze and compare each land sale to the subject and make adjustments to the per square foot of land area values for market-sensitive differences between each comparable sale and the subject property ("Parcel 1"). The appropriately adjusted sales provide an indication of value for "Parcel 1". New York State will then apply that unit value in-house to the area of the State-owned land under water ("Parcel 2"), subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc. Therefore, in our valuation herein, we have not applied any discounts for "Parcel 2" consisting of underwater lands and/or the property rights consisting of an easement. Furthermore, at the request of our client, we have provided a market value opinion of the underlying land for the adjacent upland property identified as "Parcel 1" only.

LOCAL AREA MAP

LOCAL AREA DESCRIPTION

The subject property is located in a neighborhood known as Sunset Park, Brooklyn. Together with the surrounding communities of Park Slope South and Windsor Terrace, Park Slope South is situated within Community District #7.

Commercial facilities are located primarily along the several north/south avenues. Of these, Seventh Avenue has improved as the most diverse and vibrant retail area. Commercial areas in Sunset Park are concentrated along Third, Fourth and Fifth Avenues with a mix of industrial and residential uses between the waterfront at First Avenue and Fourth Avenue with more residential properties closer to Fourth Avenue. The Gowanus Expressway runs above Third Avenue.

Sunset Park is well served by public and religious schools of various denominations, and there are numerous houses of worship of various faiths available to neighborhood residents.

Public transportation serving the subject neighborhood includes buses and subways. Subway service is located at Seventeenth and Twenty-fifth Streets along Fourth Avenue. Public buses are also available along Fourth Avenue.

The neighborhood has an excellent intra-borough roadway system. The Gowanus Expressway (Route 278) leads to the Brooklyn-Queens Expressway, Long Island Expressway and Belt Parkway, which provide access to Queens, Manhattan, Long Island, Staten Island, New Jersey and upstate New York.

Institutions of higher learning located nearby include New York City Technical College (CUNY), Brooklyn Law School, Polytechnic University, Pratt Institute, St. Francis College, St. Joseph's College and the Long Island University – Brooklyn campus. Cultural institutions include the Brooklyn Academy of Music and various local libraries.

The following table summarizes the mix of land uses found throughout Community District #7:

LOCAL AREA DESCRIPTION
(Continued)

Brooklyn Community District 7

See BK 7's profile online | NYC PLANNING

Neighborhoods[1]: Sunset Park, Windsor Terrace

POPULATION & DENSITY

2000[2]	2010[3]	2000-2010
120,063	126,230	+5%

2011-2015 Estimate[4]	152,612
Square Miles	3.7
Population Density	34,116/sq mi

COMMUNITY BOARD PERSPECTIVES

Top 3 pressing issues identified by Brooklyn Community Board 7 in 2017:

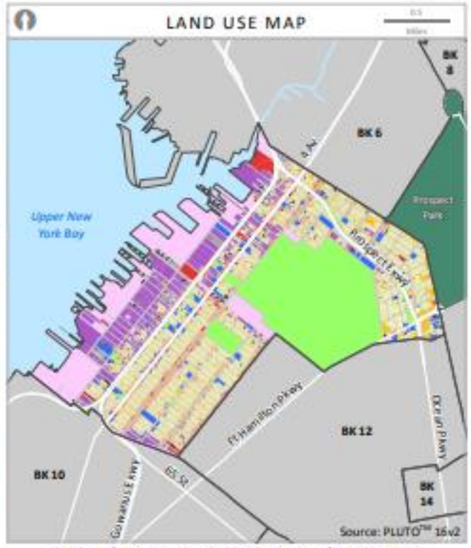
1. Schools
2. Traffic
3. Other (see Statement of Needs)

To learn more, please read Brooklyn CD 7's Statements of Community District Needs and Community Board Budget Requests for Fiscal Year 2018.

Website: www1.nyc.gov/site/brooklyncb7/index.page
Email: bk07@cb.nyc.gov

Land Use Category	# Lots	% Lot Area
1 & 2 Family Bldgs	6,500	16%
Multifamily Walk-up	3,683	11%
Multifamily Elevator	75	1%
Mixed Use	1,461	4%
Commercial	241	3%
Industrial	646	13%
Transportation/Utility	94	16%
Public/Institutional	169	4%
Open Space	36	28%
Parking	213	1%
Vacant	218	2%
Other	36	<1%

LAND USE MAP



Click here for a more detailed land use map of Brooklyn CD 7

A Snapshot of Key Community Indicators

COMMUNITY ASSETS[5]

Public Schools	42
Public Libraries	2
Hospitals and Clinics	21
Parks	16

Click to visit the NYC Facilities Explorer

RENT BURDEN[4, 6]

Brooklyn CD 7: **52%** of households spend 35% or more of their income on rent
Brooklyn: 46%
NYC: 45%

ACCESS TO PARKS[7]

Brooklyn CD 7: **87%** of residents live within walking distance of a park or open space
Citywide Target: 85%

MEAN COMMUTE TO WORK[4, 8]

Brooklyn CD 7: **43** minutes
Brooklyn: 42 minutes
NYC: 40 minutes

LIMITED ENGLISH PROFICIENCY[4]

Brooklyn CD 7: **48%** of residents 5 years or older have limited English proficiency
Brooklyn: 24%
NYC: 23%

CRIME RATE[9]

Brooklyn CD 7: **7.4** major felonies were reported per 1,000 residents in 2016
Brooklyn: 11.2
NYC: 11.8

EDUCATIONAL ATTAINMENT[4, 10]

Brooklyn CD 7: **25%** of residents 25 years or older have earned a bachelor's degree or higher
Brooklyn: 33%
NYC: 36%

UNEMPLOYMENT[4, 10]

Brooklyn CD 7: **8.4%** of the civilian labor force was unemployed on average from 2011 to 2015
Brooklyn: 10%
NYC: 9.5%

NYCgov POVERTY MEASURE[11]

Brooklyn CD 7: **28%** of residents have incomes below the NYCgov poverty threshold. See the federal poverty rate here.
Brooklyn: 21%
NYC: 21%

[1]Neighborhoods may be in multiple districts. Names and boundaries are not officially designated. [2]2000 US Census; [3]2010 US Census; [4]American Community Survey 2011-2015 5-Year Estimates, calculated for Public Use Microdata Areas (PUMAs). PUMAs are geographic approximations of community districts. [5]NYC Dept of City Planning Facilites Database (2017); [6]Differences of less than 3 percentage points are not statistically meaningful. [7]NYC Dept of Parks and Recreation (DPR) (2016). DPR considers walking distance to be 1/4 mile for parks less than 6 acres, and 1/2 mile for larger parks and pools. [8]Differences of less than 2 minutes are not statistically meaningful. [9]NYPD CompStat, Historic Complaint Data (2017); [10]Differences of less than 2 percentage points are not statistically meaningful. [11]2011-2015 NYCgov Poverty Measure by PUMA. This metric from the Mayor's Office for Economic Opportunity accounts for NYC's high cost of housing, as well as other costs of living and anti-poverty benefits.

SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019

Overview

South Brooklyn Industrial

12 Mo Deliveries in SF	12 Mo Net Absorption in SF	Vacancy Rate	12 Mo Rent Growth
0	436 K	5.3%	3.8%

KEY INDICATORS

Current Quarter	RBA	Vacancy Rate	Market Rent	Availability Rate	Net Absorption SF	Deliveries SF	Under Construction
Logistics	25,582,893	4.4%	$19.35	11.0%	84,460	0	322,800
Specialized Industrial	9,084,683	7.2%	$18.25	7.2%	21,200	0	5,004
Flex	1,119,784	11.4%	$15.97	12.0%	3,980	0	0
Submarket	**35,787,360**	**5.3%**	**$18.97**	**10.1%**	**109,640**	**0**	**327,804**

Annual Trends	12 Month	Historical Average	Forecast Average	Peak	When	Trough	When
Vacancy Change (YOY)	-1.3%	5.4%	6.7%	8.7%	2007 Q1	2.2%	2000 Q2
Net Absorption SF	436 K	(37,859)	(25,110)	886,261	2015 Q3	(1,277,481)	2003 Q4
Deliveries SF	0	55,517	101,832	275,401	2015 Q4	0	2019 Q2
Rent Growth	3.8%	4.0%	1.8%	10.6%	2000 Q4	-2.7%	2009 Q4
Sales Volume	$78.4 M	$83.2 M	N/A	$395.0 M	2015 Q3	$0	2001 Q1

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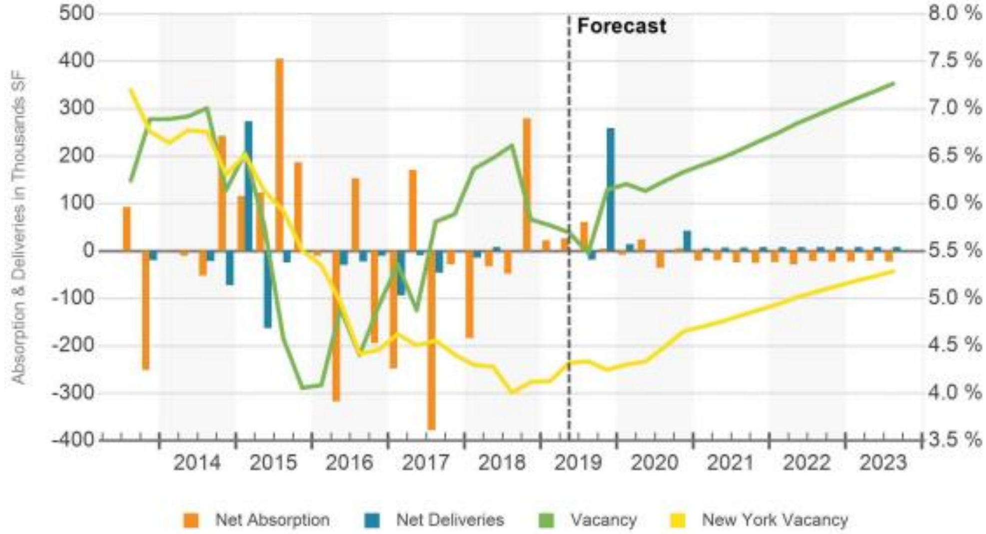
SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

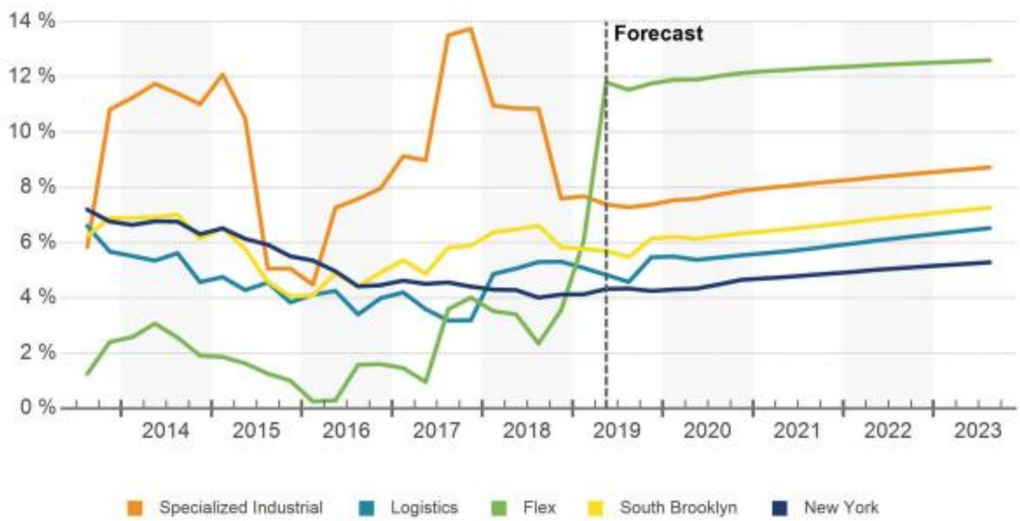
Leasing

South Brooklyn Industrial

NET ABSORPTION, NET DELIVERIES & VACANCY



VACANCY RATE



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SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

Leasing

South Brooklyn Industrial

AVAILABILITY RATE

3 STAR MOST ACTIVE BUILDINGS IN SUBMARKET - PAST 12 MONTHS

Property Name/Address	Rating	RBA	Deals	SF	Vacancy (QTD)	Net Absorption SF (QTD)
303 Louisiana Ave	★★★★★	100,000	1	99,400	0%	99,400
Building 26 4014 1st Ave	★★★★★	679,573	1	3,443	0%	0
Greenwood Heights 413 20th St	★★★★★	16,500	1	16,500	0%	0
2004 McDonald Ave	★★★★★	24,300	1	5,500	0%	0
Manhattan Beer Distributors 5700 Avenue D	★★★★★	152,660	1	14,000	0%	0
150 52nd St	★★★★★	123,785	1	13,542	89.3%	(46,000)

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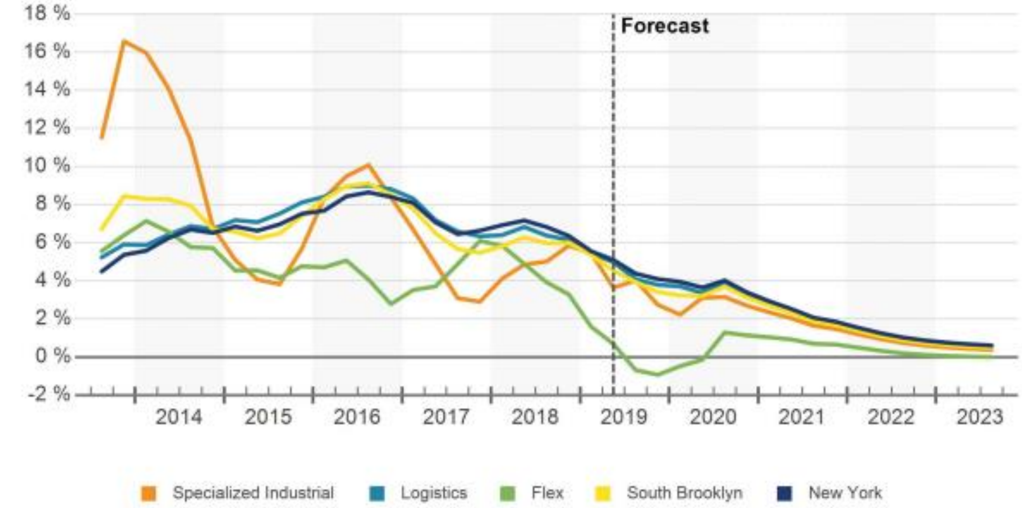
SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

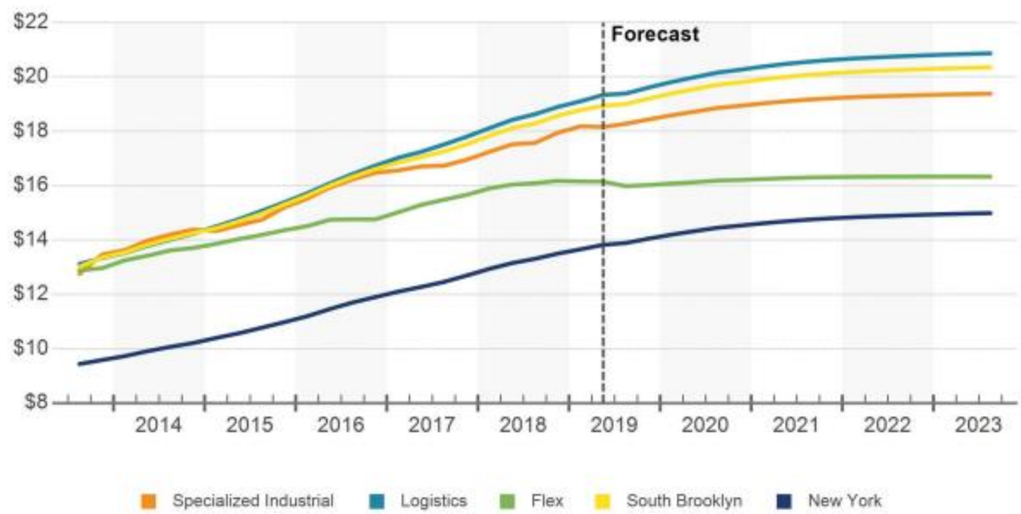
Rent

South Brooklyn Industrial

MARKET RENT GROWTH (YOY)



MARKET RENT PER SQUARE FOOT



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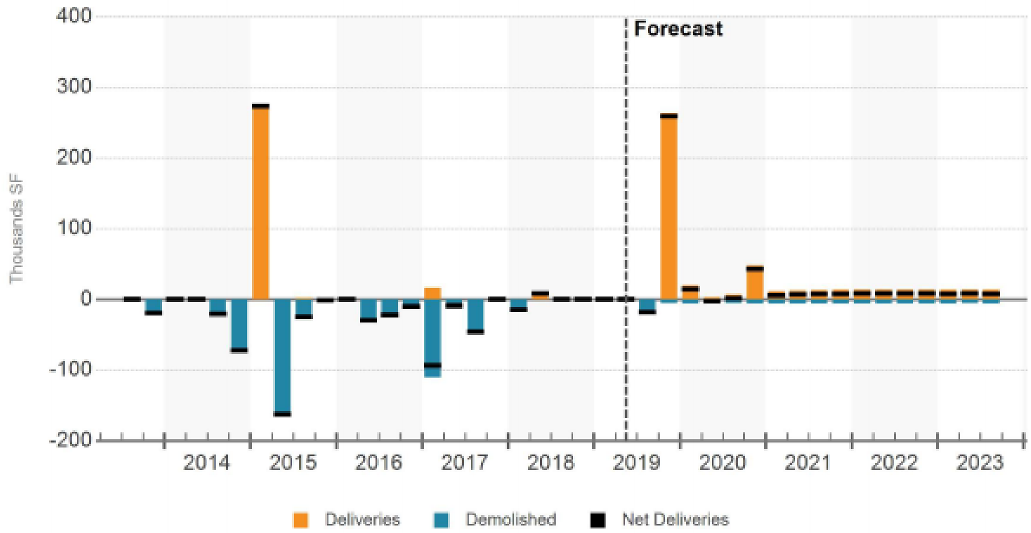
SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

Construction

South Brooklyn Industrial

DELIVERIES & DEMOLITIONS



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SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

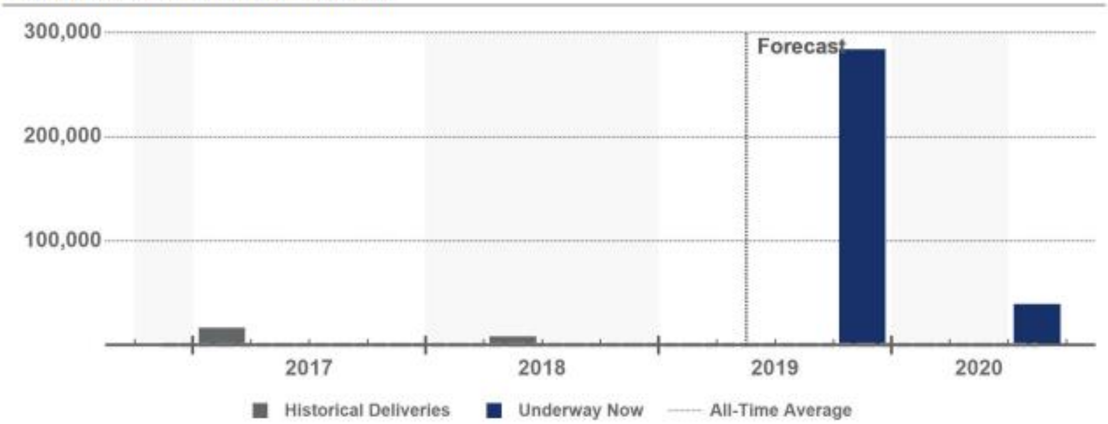
Construction

South Brooklyn Industrial

All-Time Annual Avg. SF	Delivered SF Past 4 Qtrs	Delivered SF Next 4 Qtrs	Proposed SF Next 4 Qtrs
1,060	0	322,800	0

PAST 4 QUARTERS DELIVERIES, UNDER CONSTRUCTION, & PROPOSED

PAST & FUTURE DELIVERIES IN SQUARE FEET



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SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

Construction

South Brooklyn Industrial

UNDER CONSTRUCTION

	Property Name/Address	Rating	Bldg SF	Stories	Start	Complete	Developer/Owner
1	12595 and 12555 Flatlan… 12595 Flatlands Ave	★★★★★	96,900	-	Jul-2019	Nov-2019	- Amstar
2	12555 and 12595 Flatlan… 12555 Flatlands Ave	★★★★★	96,900	-	Jul-2019	Nov-2019	- Amstar
3	1427 Ralph Ave	★★★★★	70,000	1	May-2018	Nov-2019	I J Litwak Realty I LLC Harris Litwak
4	2701 W 15th St	★★★★★	39,000	4	Sep-2019	Sep-2020	- -
5	1571 McDonald Ave	★★★★★	20,000	1	Aug-2018	Dec-2019	Rybak Development & Construction Rybak Development & Construction

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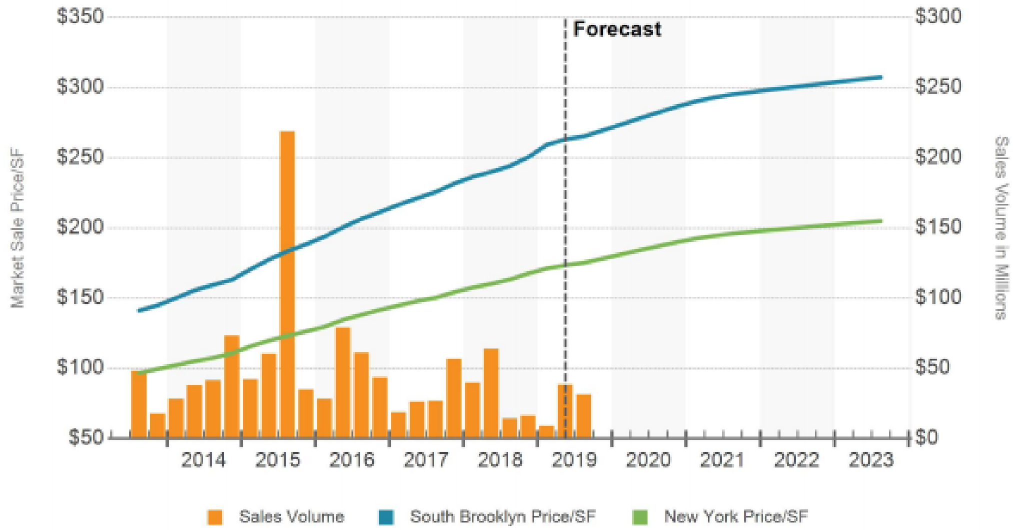
SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

Sales

South Brooklyn Industrial

SALES VOLUME & MARKET SALE PRICE PER SF



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SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

Sales Past 12 Months

South Brooklyn Industrial

Sale Comparables	Avg. Cap Rate	Avg. Price/SF	Avg. Vacancy At Sale
42	6.9%	$255	12.3%

SALE COMPARABLE LOCATIONS

SALE COMPARABLES SUMMARY STATISTICS

Sales Attributes	Low	Average	Median	High
Sale Price	$497,780	$3,168,613	$2,115,000	$18,500,000
Price Per SF	$94	$255	$347	$1,362
Cap Rate	4.7%	6.9%	6.5%	10.0%
Time Since Sale in Months	0.6	5.7	4.7	11.1
Property Attributes	**Low**	**Average**	**Median**	**High**
Building SF	1,138	11,910	7,610	63,000
Ceiling Height	8'	17'2"	18'	30'
Docks	0	1	0	3
Vacancy Rate At Sale	0%	12.3%	0%	100%
Year Built	1913	1951	1950	2012
Star Rating	★☆☆☆☆	★☆☆☆☆ 1.5	★★☆☆☆	★★★☆☆

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SOUTH BROOKLYN INDUSTRIAL MARKET – 3rd Q 2019
(continued)

Sales Past 12 Months

South Brooklyn Industrial

RECENT SIGNIFICANT SALES

	Property				Sale			
Property Name - Address	Rating	Yr Built	Bldg SF	Vacancy	Sale Date	Price	Price/SF	Cap Rate
1 4401-4423 Second Ave	★★☆☆☆	1913	60,000	0%	6/25/2019	$18,500,000	$308	-
2 966-988 Alabama Ave	★★☆☆☆	1965	63,000	0%	7/26/2019	$10,700,000	$170	-
3 847 Shepherd Ave	★★☆☆☆	1959	30,000	0%	8/9/2019	$5,000,000	$167	-
4 1565 62nd St	★☆☆☆☆	2012	27,000	22.2%	11/15/2018	$5,000,000	$185	10.0%
5 1649 61st St	★☆☆☆☆	1931	10,925	0%	5/30/2019	$4,312,500	$395	-
6 1661 61st St	★☆☆☆☆	1931	10,735	0%	5/30/2019	$4,237,500	$395	-
7 774 39th St	★☆☆☆☆	1985	6,650	0%	2/28/2019	$4,000,000	$602	-
8 2299 McDonald Ave	★★☆☆☆	1970	9,000	33.3%	8/12/2019	$3,800,000	$422	4.7%
9 6115 15th Ave	★★☆☆☆	1931	7,600	0%	4/2/2019	$3,600,000	$474	-
10 1250-1260 Utica Ave	★★☆☆☆	1950	13,500	69.6%	10/23/2018	$3,166,000	$235	-
11 249-261 58th St	★★☆☆☆	1931	12,360	0%	12/27/2018	$3,000,000	$243	-
12 1261 Coney Island Ave	★★☆☆☆	1923	6,500	0%	2/25/2019	$2,727,500	$420	-
13 491 Wortman Ave	★★☆☆☆	1950	19,000	0%	5/8/2019	$2,529,988	$133	6.5%
14 712 3rd Ave	★★☆☆☆	1995	22,725	66.0%	8/30/2019	$2,385,000	$105	-
15 1229 60th St	★☆☆☆☆	1931	5,300	0%	8/15/2019	$2,230,000	$421	-
16 680 65th St	★★☆☆☆	1987	1,600	0%	8/1/2019	$2,000,000	$1,250	-
17 995 Remsen Ave	★★☆☆☆	1980	3,450	100%	11/27/2018	$1,800,000	$522	-
18 2770 Nostrand Ave	★★★☆☆	1963	4,800	0%	5/23/2019	$1,785,000	$372	-
19 1563 63rd St	★☆☆☆☆	1931	3,769	0%	7/30/2019	$1,700,000	$451	-
20 824 Alabama Ave	★★☆☆☆	1967	7,500	100%	9/10/2019	$1,700,000	$227	-

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PROPERTY DESCRIPTION

"Parcel 1" is an irregular-shaped parcel located on the western front of the Borough of Brooklyn, bounded by Bay Ridge Canal on its western border, and 53rd & 54th street on its eastern border. According to appraiser estimates, "Parcel 1" contains 287,086± square feet (6.591± acres) of gross land area, and is zoned within an M3-1 District by the City of New York. "Parcel 1" is currently improved with the Narrows Gas Turbine Facility. The M3-1 district carries with it a maximum FAR of 2.0, which equates to a maximum buildable area of 496,342± for "Parcel 1".

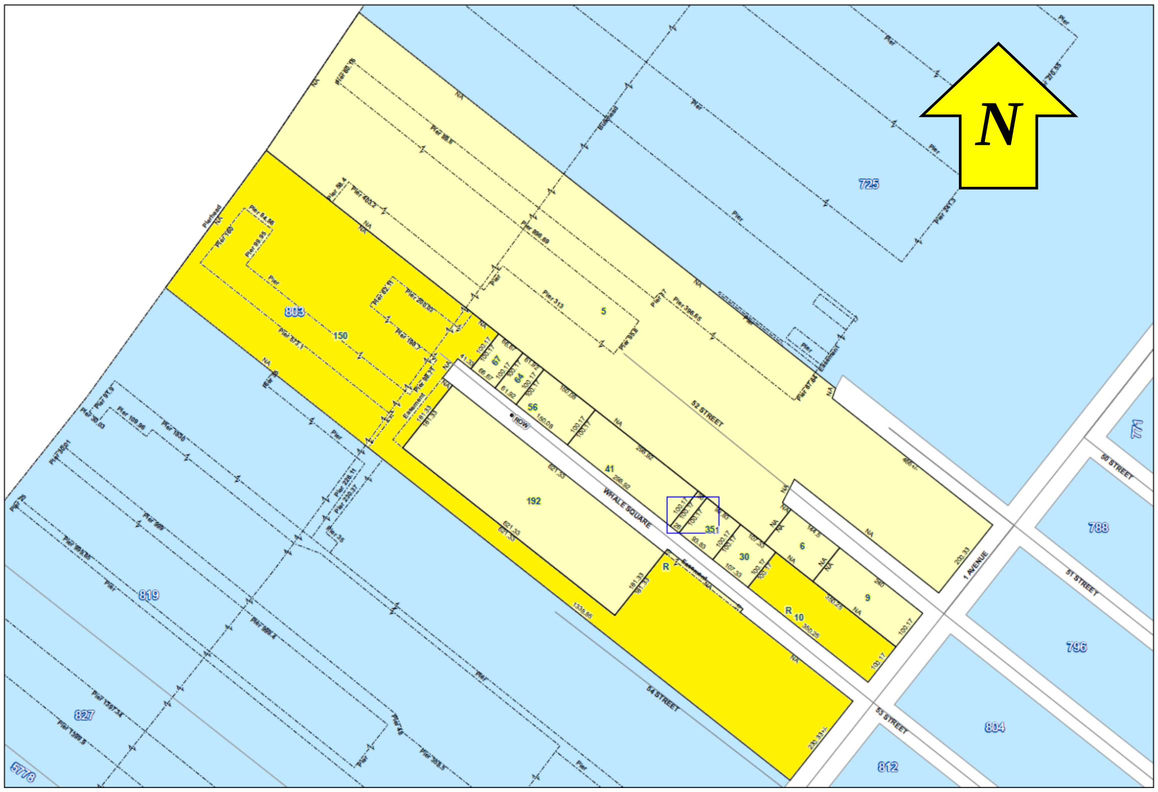
The subject easement area is approximately 172,884± square feet (3.969± acres), currently underwater, contained within the Narrows Gas Turbine facility, within the Sunset Park neighborhood of the Borough of Brooklyn, in the City and State of New York. The subject easement area has been identified on the New York City Tax Maps as Brooklyn Block 803, Lots 10 & 150 ("Parcel 1").

Our physical inspection did not include an analysis of hazardous soils or contamination problems, and we do not have reason to believe such would exist. However, it is recommended that an environmental engineer be retained to determine the exact status of the subject soils. If in the event contamination is detected, our valuation contained herein may be subject to change.

FEMA FLOOD MAP

TAX MAP[7]

Block 803, Lots 150 and 10



*****We have been provided with a survey prepared by Merlyn J. Jenkins Associates, Inc. dated October 31, 2005 and signed on December 12, 2005, which details both "Parcel 1" (adjacent upland area) and "Parcel 2" (subject easement area). According to the provided survey, "Parcel 1" contains 287,086± square feet (6.591± acres) of gross land area and "Parcel 2" contains 172,884± square feet (3.969± acres) of gross land area. It should be noted that according to New York City tax map records, the subject tax map was subsequently revised on two (2) occasions, effective December 4, 2008 and January 10, 2014. However, at the request of our client, we have relied upon the information and the land areas reported on the provided survey in our valuation herein. It is noted that the above tax map and the provided survey appear to have some discrepancies in terms of lot lines, etc. However, as discussed, we have relied upon the provided survey in our valuation herein. Any information to the contrary may affect our valuation conclusions.

It is further noted that the above tax map appears to indicate that Lots 10 & 150 extends to the Pierhead line and includes the underwater lands herein identified as "Parcel 2". Additionally, we have highlighted "Lot 10" which is reportedly owned by Astoria Generating Co. and is identified as being part of "Parcel 1" in the descriptive text of the provided survey. However, the survey drawing appears to exclude this area.

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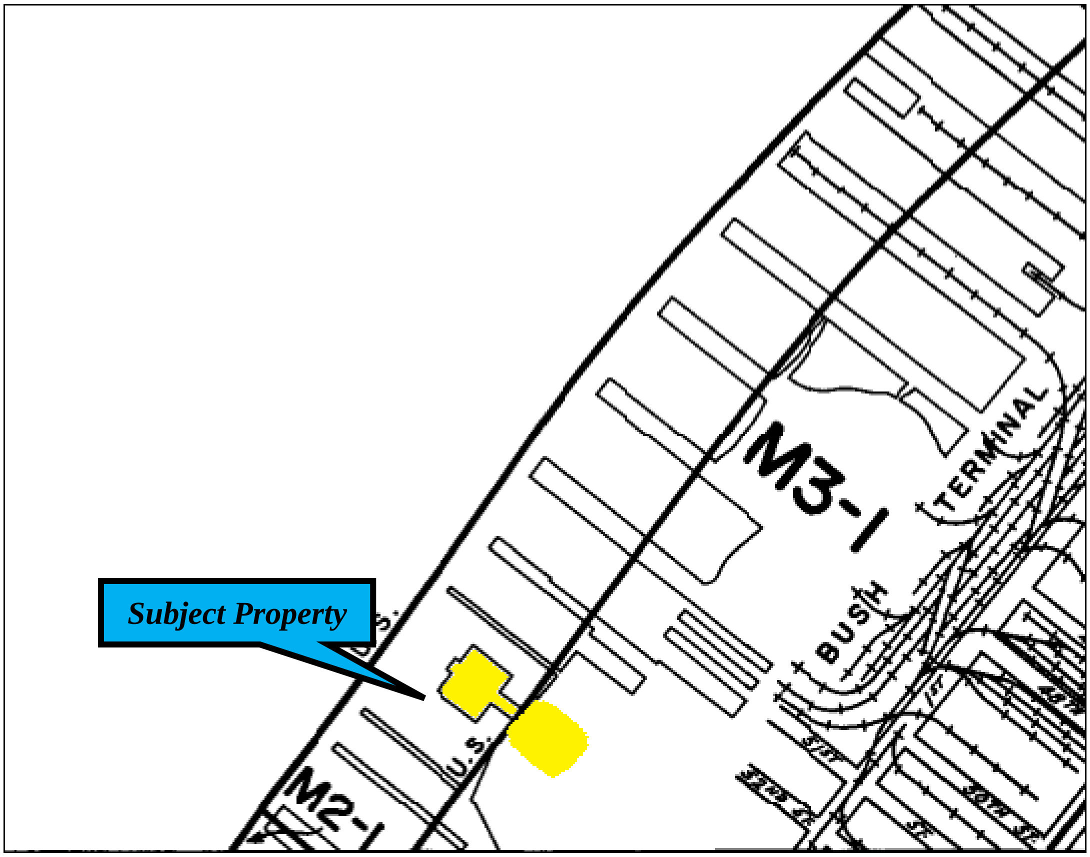
[7] Tax map effective January 10, 2014.

ASSESSMENT AND REAL ESTATE TAX DATA

The subject property has been identified on the New York City Tax Maps Brooklyn Block 803, Lots 10 & 150 ("Parcel 1"). According to the New York City Department of Finance, the subject Lots are classified under Building Class Code U9, which signifies that are a miscellaneous utility type property. Subject Lot 150 is identified as REUC – "C132-85EP" and "C132-85P". Subject Lot 10 is identified as REUC – "C132-84" and "C132-85". We have included the most recent tax bills in the Addenda of this report for the subject lots.

ZONING MAP



ZONING EXCERPT

"Parcel 1" is zoned M3-1 Heavy Manufacturing (Low Performance) District, as mapped by the City of New York. M3 zones are typically located near the waterfront and are cordoned off from residential districts. As home to heavy industry, they are responsible for the generation of noise, odor, traffic and/or pollutants. Power plants, solid waste transfer facilities and recycling plants, and fuel supply depots are examples of the types of business operations found within M3 zones.

Sections of the city that are designated M3 include large areas along the Arthur Kill in Staten Island, the southern shore of the South Bronx (along the East River), portions of Astoria in Queens and adjacent to the Gowanus Canal in the borough of Brooklyn.

Major regulations of the M3-1 district are as follows:

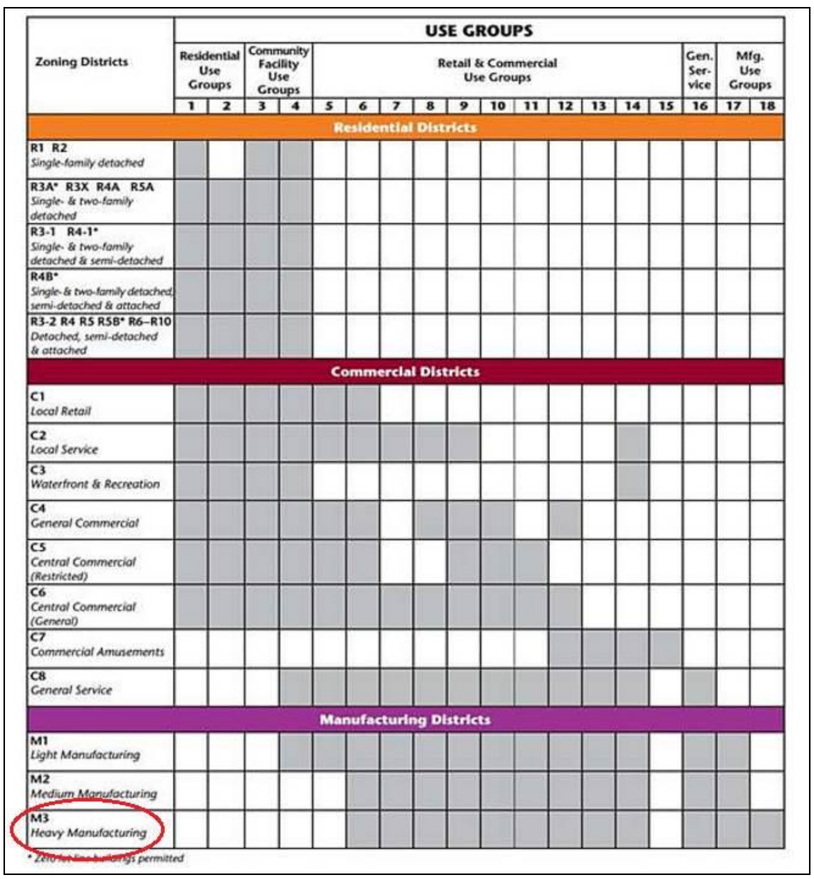
Permitted Uses – M3-1 Heavy Manufacturing District

Permitted Uses:	Commercial and smaller retail; Manufacturing and industrial operations that may generate a level of noise, dust, smoke or pollutants as outlined under the required performance standards in the zoning resolution. Typical heavy industrial uses include chemical and power plants, and foundries.

Bulk Requirements – M3-1 Heavy Manufacturing District

Height, Area & Bulk Requirements	
Minimum Lot Area:	None.
Maximum Floor Area Ratio (FAR):	2.0
Maximum Building Height:	
Stories	4.0
Feet	60.0 feet
Minimum Yard Requirements	
Front:	None.
Sides:	None; 15.0 feet if adjacent to a residential district.
Rear:	20.0 feet
Off-Street Parking	
General Retail use:	One (1) space for 300.0 square feet of floor area
Manufacturing or Commercial use:	One (1) space for 1,000.0 square feet of floor area
Storage or Miscellaneous use:	One (1) space for 2,000.0 square feet of floor area

Allowable Use Groups – New York City



Use Group 17 consists primarily of manufacturing uses that: (1) can conform to high performance standards by controlling objectionable influences; and (2) in so doing, can limit their impact on adjacent residential areas; and (3) normally generate a great deal of traffic, both pedestrian and freight. These include service and wholesale establishments such as; building materials or contractor's yards and manufacturing establishments, which include, but is not limited to; aircraft, beverages, food products, fur goods, glass products, machine tools, novelty products, pharmaceutical products, steel products, textiles, tobacco, etc.

The subject property is currently utilized as a utility property, which appears to be a legally permissible use under the M3-1 zoning designation.

We recognize that issues involving zoning compliance are complex and require the special ability, knowledge and training of professionals familiar with the appropriate regulations. Therefore, the determination of zoning compliance and development potential can be determined only by an engineer or architect.

HIGHEST AND BEST USE

Highest and Best Use [8]

"The reasonably probable and legal use of vacant land or an improved property, that is physically possible, appropriately supported, financially feasible, and that results in the highest value. The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity. Alternatively, the probable use of land or improved property, specific with respect to the user and timing of the use, that is adequately supported and results in the highest present \value."

In order to determine the highest and best use of the subject site, we have considered the physically possible, legally permitted, economically feasible and maximally productive uses of the property, both as vacant and as improved.

Highest and Best Use of Land or a Site as Though Vacant [9]

"Among all reasonable, alternative uses, the use that yields the highest present land value, after payments are made for labor, capital and coordination. The use of a property based on the assumption that the parcel of land is vacant or can be made vacant by demolishing any improvements."

The physically possible uses are determined by the size and configuration of the subject site. "Parcel 1" is an irregular-shaped parcel located on the western front of the Borough of Brooklyn, bounded by Bay Ridge Canal on its western border, and 53rd & 54th street on its eastern border. "Parcel 1" contains 287,086± square feet (6.591± acres) of gross land. "Parcel 2" (the subject easement area) contains 172,884± square feet (3.969± acres), currently underwater, contained within the Narrows Gas Turbine facility. Upon inspection, "Parcel 1" was to be level and at street grade. The physical characteristics of "Parcel 1" promote development. However, "Parcel 2" is representative of an underwater

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[8] *The Dictionary of Real Estate Appraisal – Fifth Edition,* Appraisal Institute, Chicago, IL, 2010, p. 93.

[9] *Ibid.*, p. 93.

easement and thus considered not conductive to development. However, New York State Regulation 270-6.8 notes that "State-owned land under water shall be appraised based upon the value of the adjacent upland". Therefore, we have viewed the subject easement land as a land parcel which possess a sufficient site layout and therefore is considered conducive to development, consistent with "Parcel 1".

The legally permitted uses are determined by the zoning of the subject property. The subject is zoned M3-1 Heavy Manufacturing. The M3-1 Heavy Manufacturing district allows for heavy industrial uses that generate noise, odor, traffic and/or pollutants. The M3-1 Heavy Manufacturing district allows for heavy industrial uses that generate noise, odor, traffic and/or pollutants. The M3-1 District prohibits residential uses. The subject's legally permitted use include the development of a manufacturing/industrial facility.

The next step is to determine the uses that are economically feasible. The most economically feasible use is the use that provides the greatest return to the land and is the most reasonably probable use in the subject market. Surrounding improvements include manufacturing/industrial facilities. Therefore, the economically feasible use of subject is a manufacturing/industrial facility.

The final step is to determine from the financially feasible uses the use that is maximally productive. The maximally productive use, and Highest and Best Use as Vacant, of the subject property is for manufacturing/industrial use.

Highest and Best Use of Property as Improved [10]

"The use that should be made of a property as it exists. An existing improvement should be renovated or retained as is so long as it continues to contribute to the total market value of the property, or until the return from a new improvement would more than offset the cost of demolishing the existing building and constructing a new one."

As the subject property consists of vacant land currently underwater, an analysis of the highest and best use, as improved, is not applicable.

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[10] *The Dictionary of Real Estate Appraisal – Fifth Edition*, Appraisal Institute, Chicago, IL, 2010, p. 94.

SALES COMPARISON APPROACH

SALES COMPARISON APPROACH METHODOLOGY

The *Sales Comparison Approach* involved a comparison of the underlying land of the subject property to similar properties that have sold in the same or in a similar market. The following steps were implemented in arriving at our estimate of value for the subject property via the *Sales Comparison Approach*:

1) Pertinent sales, listings and/or offerings that were available for similar vacant land parcels were researched.

2) The prices as to the terms, motivating forces and bona fide nature of each transaction were confirmed and qualified.

3) The important attributes of each comparable property were compared to the corresponding ones of the subject under the general categories of time, location, size, zoning and development potential.

4) All dissimilarities and their probable effect on the price of each comparable property were considered to derive a market value indication for the subject.

ANALYSIS OF COMPARABLE VACANT INDUSTRIAL LAND SALES

We have researched the Brooklyn industrial land market for recent sales and offerings of vacant land in order to provide a market value opinion for the subject property. We have selected several sales that are comparable to the subject for analysis purposes. All of the comparable sales were analyzed herein on the basis of sale price per square foot of land area, which is a common price per unit indicator used by market participants for similar properties in the local market.

Through the utilization of a land sales comparison approach, we have identified a number of meaningful transfers of similarly-zoned, vacant land sales, as compared to the subject "Parcel 1". The comparable land sales are presented herein on the basis of sale price per square foot of land area.

A summary of the comparable vacant industrial land sales is presented in the following table:

Comparable Vacant Industrial Land Sales

No.	Location	Sale Date	Sale Price	Land Area (Sq. Ft.)	Land Area (Acres)	Zoning (FAR)	Sale Price per Sq. Ft. Land Area
1	63 Ferris Street Red Hook, Brooklyn	8/29/2019	$22,141,000	80,000	1.84	M2-1 *2.0*	$276.76
2	50 21st Street Sunset Park, Brooklyn	1/10/2019	$264,180,475	778,717	17.88	M3-1 *2.0*	$339.25
3	Ferris Street/ Sullivan Street Red Hook, Brooklyn	12/19/2018	$311,675,000	494,562	11.35	M2-1 *2.0*	$630.20
4	6440 Columbia Street Red Hook, Brooklyn, NY	2/14/2018	$47,500,000	176,041	4.04	M3-1 *2.0*	$269.82
5	47th Street Sunset Park, Brooklyn, NY	9/19/2017	$3,500,000	14,558	0.33	M3-1 *2.0*	$240.42
6	455-479 Smith Street Gowanus, Brooklyn, NY	7/20/2017	$48,000,000	165,840	3.81	M3-1 *2.0*	$289.44

The comparable land sales transacted between July 2017 and August 2019. The sites ranged in size from 14,558± to 778,717± square feet of land area. The unadjusted sale prices ranged from $240.42 to $630.20 per square foot land area, with a mean value of $340.98 per square foot land area and a median indicator of $283.10 per square foot land area.

Discussion of Land Sales Adjustments

Prior to estimating the subject's land value, we considered the presented land sales and the difference between the comparables as they relate to the subject. On this basis, we applied quantitative adjustments to each of the prices per acre to reflect these differences and refine the indicated range. An upward adjustment indicates that the comparable is inferior to the subject, while a downward adjustment indicates the comparable to be superior.

Since each of the comparable land sales was transferred for cash or its equivalent, financing adjustments were not necessary.

Market Conditions (Time)

We first considered an adjustment for market conditions (time). The comparable industrial land sales occurred between July 2017 and August 2019. Market conditions over the previous few years within the local market area have increased. Therefore, we have considered sales #4, #5 and #6 were inferior in market conditions and therefore we adjusted upward for this category. The remaining sales occurred under similar market conditions and were not adjusted for this category.

Location

An adjustment was considered for the comparative location of the comparable land sales versus the subject property. The subject site is found along the Upper New York Bay, in the Sunset Park neighborhood of the Borough of Brooklyn, City and State of New York. The subject is located on the western front of the Borough of Brooklyn, bounded by Bay Ridge Canal on its western border, and 53rd & 54th street on its eastern border. It is considered to have average transportation linkages, with a significant distribution route in the form of Interstate 278; found to its immediate east.

Our survey of comparable properties pulled recent sales from similar industrial districts found throughout the Borough of Brooklyn. This is inclusive of the subject neighborhood of Sunset Park, but is also inclusive of the Brooklyn neighborhoods such as Gowanus and Red Hook. The land sales pulled from these neighborhoods are noted to share similar locational characteristics with that of the subject property, which led to the conclusion that adjustments were not warranted for this category.

Size

An adjustment was considered for size. Typically, smaller land parcels sell for more on a per-square-foot basis than their larger counterparts. This assumes a quantity discount and the diminishing number of users that require larger parcels. Adjustments to the comparable sales were dependent upon the size of the comparable land sale in relation to the subject site being analyzed. An upward adjustment indicates that the comparable is larger than the subject site, while conversely, a downward adjustment indicates that the comparable is smaller than the subject site. No adjustment indicates that the comparable was considered to be similar in size to the subject site.

The subject property ("Parcel 1") contains 287,086± square feet (6.59± acres). The comparable land sales feature a range of 14,558± to 778,717± square feet of land area (0.33± to 17.88± acre of land area). Sales #1, #4, #5 and #6 are smaller than the subject property and were adjusted downward. Sales #2 and #3 are larger than the subject in terms of maximum buildable area and were adjusted upward.

<u>Site Utility</u>

Subject "Parcel 1" consists of two (2) generally level mostly rectangular parcels of land with adequate street frontage. In reviewing the comparable vacant land sales, it was determined that regular-shaped, level parcels with a good degree of street frontage provide the best utility. Sales #1, #4, #5 and #6 feature these qualities, and in this respect, were considered similar to the subject property sites. Sales #2 and #3 are comprised of multi-parcel, assemblage sites with extensive street frontage which are proposed to be improved with large scale development sites and are unique to the local area and therefore, were considered superior to the subject property. Therefore, we have adjusted these comparable sales downwards for being superior to the subject property.

<u>Waterfront</u>

The subject property is located on the east side of the Upper Bay. All of the comparable sales, with the exception of Sales #1 and #5, are located on similar waterfront parcels and were considered to be similar to the subject property. Sales #1 and #5 are not waterfront parcels, inferior to the subject property and upward adjustments were applied for this category.

Zoning

The subject property is zoned within an M3-1 Heavy Manufacturing (Low Performance) District and features an inherent FAR of 2.0.

The comparable sales are found within both M3-1 and M2-1 Districts, both of which share an identical FAR of 2.0. Sales #1 and #3 are zoned M2-1, which is a medium performance manufacturing district that is less restrictive than M3-1 (heavy performance). Therefore, Sales #1 and #3 were adjusted downward for superiority. All of the remaining sales are zoned M3-1 and were not adjusted.

The table on the following page summarizes the aforementioned adjustments made to the comparable vacant industrial land sales:

ADJUSTMENTS TO THE COMPARABLE INDUSTRIAL LAND SALES *Per Sq. Ft.*

No.	Location	Sale Date	Sale Price per Land Area (Sq. Ft.)	x	Time Adj.	=	Time Adj. per Price. Land Area (Sq. Ft.)	x	Loc.	+	Size	+	Site Utility	+	Water Front	+	Zoning	=	Total Adj.	=	Adj. Price per Land Area (Sq. Ft.)
1	63 Ferris Street Red Hook, Brooklyn	8/29/19	$276.76		0%		$276.76		0%		-10%		0%		15%		-10%		-5%		$262.92
2	50 21st Street Sunset Park, Brooklyn	1/10/19	$339.25		0%		$339.25		0%		15%		-20%		0%		0%		-5%		$322.29
3	Ferris / Sullivan Street Red Hook, Brooklyn	12/19/18	$630.20		0%		$630.20		0%		10%		-20%		0%		-10%		-20%		$504.16
4	6440 Columbia Street Red Hook, Brooklyn	2/14/18	$269.82		10%		$296.80		0%		-5%		0%		0%		0%		-5%		$281.96
5	47th Street Sunset Park, Brooklyn	9/19/17	$240.42		10%		$264.46		0%		-20%		0%		15%		0%		-5%		$251.24
6	455-479 Smith Street Gowanus, Brooklyn	7/20/17	$289.44		10%		$318.38		0%		-5%		0%		0%		0%		-5%		$302.46

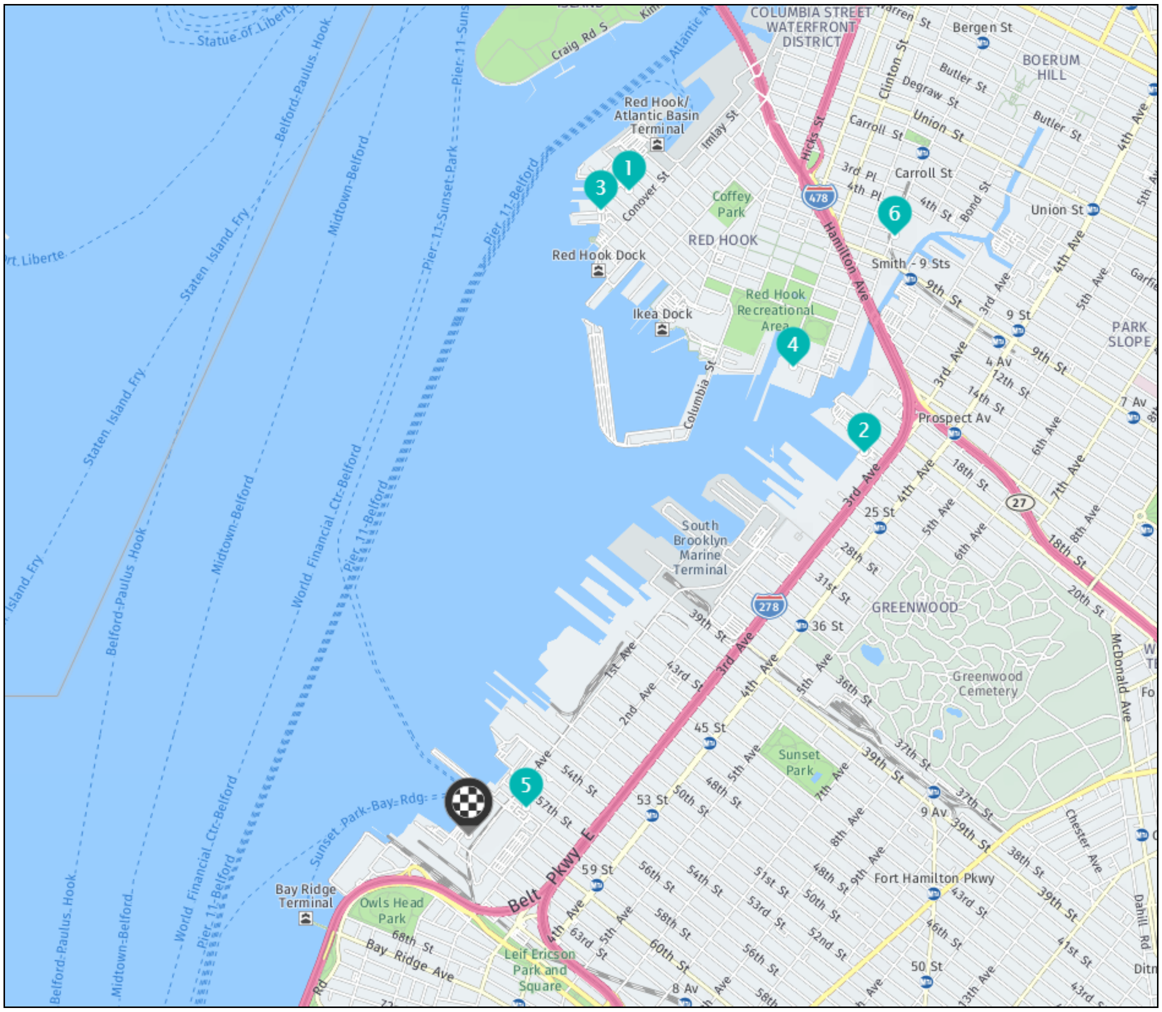
<u>VALUE CONCLUSION – SALES COMPARISON APPROACH</u>

Prior to adjustments, the comparable industrial land sales ranged from $240.42 to $630.20 per square foot of land area and featured a mean value of $340.98 per square foot of land area. Following the adjustment process, the comparable industrial land sales ranged from $251.24 to $504.16 per square foot of land area, with a mean value of $320.84 per square foot of land area and a median indicator of $292.21 per square foot of land area. Sale #3 appears to be an outlier and was given least consideration given its large size and M2-1 zoning designation. Based on the above, we have concluded to a fee simple estate market value opinion of **$300.00 per square foot of land area** for “Parcel 1”.

As previously discussed, New York State Regulation 270-6.8 notes that “State-owned land under water shall be appraised based upon the value of adjacent upland.” As such, we have been requested to determine the unit value of the adjacent upland, as though vacant. New York State will then apply that unit value in-house to the area of the State-owned land under water (“Parcel 2”), subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc. Therefore, in our valuation herein, we have not applied any discounts for “Parcel 2” consisting of underwater lands and/or the property rights consisting of an easement. Furthermore, at the request of our client, we have provided a market value opinion of the underlying land for the adjacent upland property identified as “Parcel 1” only.

It is noted that an annual “rate of return” of 5.0% would be considered to be reasonable for the subject’s market area. The rate of return can be applied to the underlying land value to derive an annual rental payment, which can be converted to a lump sum payment for the proposed 25-year term by applying a market supported 6.0% yield rate (IRR) over the term of the easement to arrive at a present value payment. Additional considerations may be warranted for the division of property rights between the fee simple estate valuation provided herein and easement rights, specifically important to that consideration is if the easement is “exclusive” or “non-exclusive” to determine the impact of the easement.

COMPARABLE VACANT INDUSTRIAL LAND SALES LOCATION MAP



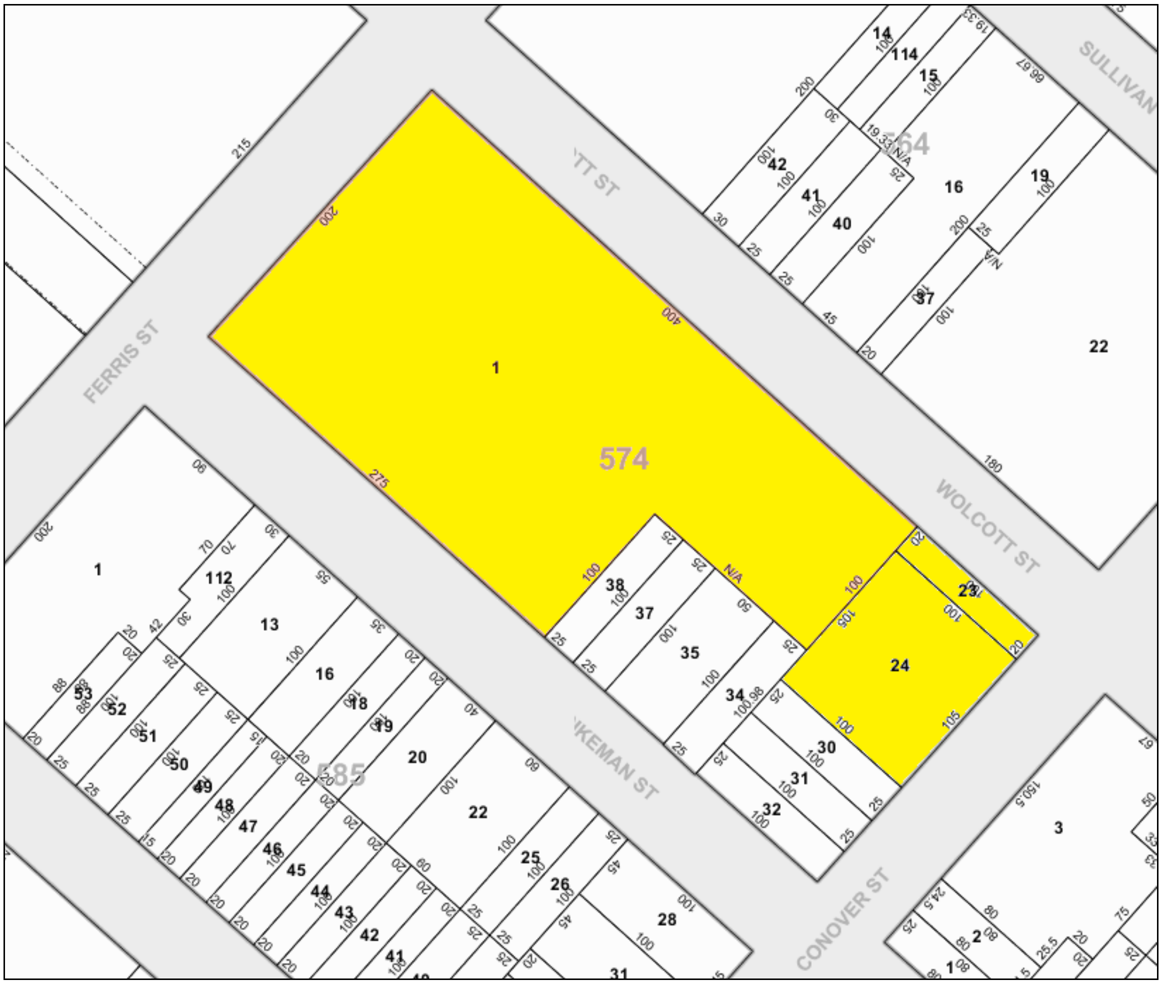
No.	Location
1	63 Ferris Street Red Hook, Brooklyn
2	50 21st Street Sunset Park, Brooklyn
3	Ferris Street/ Sullivan Street Red Hook, Brooklyn
4	6440 Columbia Street Red Hook, Brooklyn, NY
5	47th Street Sunset Park, Brooklyn, NY
6	455-479 Smith Street Gowanus, Brooklyn, NY

COMPARABLE VACANT INDUSTRIAL LAND SALES

Land Sale #1	**63 Ferris Street**
Block 574, Lots 1, 23 & 24	**Red Hook, Brooklyn, NY**

Grantor / Grantee	145-65 Wolcott St. Realty Corp. / Red Hook JV LLC
Date of Sale (Recorded)	8/29/2019 (9/10/2019)
CRFN	2019000289373
Description	Three, irregular shaped parcels located on a block-front parcel of land with frontage on Ferris Street, Conover Street and Wolcott Street, in the Sunset Park neighborhood of Brooklyn. There have been no plans filed with the NYC DOB, however, according to public news sources, the site is proposed to be redeveloped and was marketed as such within the listing brochure.
Land Area (Square Feet)	80,000± square feet
Land Area (Acres)	1.84± acres
Zoning (FAR)	M2-1 (2.0)
Indicated Sale Price **Plus: Est. Demolition Costs** **Adj. Sale Price**	\$21,500,000.00 \$ 641,000.00 \$22,141,000.00
Sale Price per Land Area (Sq. Ft.)	\$276.76
Sale Price per Land Area (Acres)	\$12,055,775

TAX MAP – LAND SALE #1

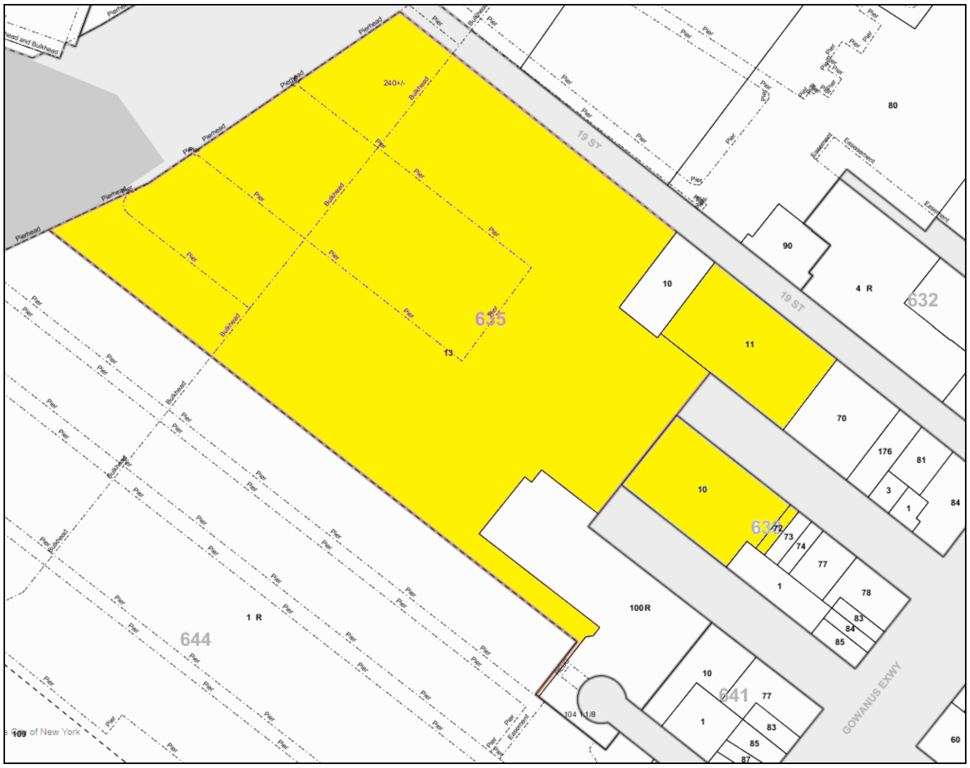


Land Sale #2 **50 21st Street**
Block 638, Lots 10 and 72 **Sunset Park, Brooklyn, NY**
Block 635, Lots 11 and 13

Grantor / Grantee	601 Sunset Owner LLC / SIP Holdings Venture, LLC SL Sunset Industrial II LLC / SIP Holdings Venture, LLC
Date of Sale (Recorded)	1/10/2019 (1/25/2019)1
CRFN	2019000029592 2019000029593
Description	Irregular shaped parcel of multiple parcels located west of the Gowanus Parkway with water frontage on the Gowanus Bay in the Sunset Park neighborhood of Brooklyn. There are no permits filed with the NYC DOB as of the transaction date, however, the acquired parcels are proposed to be assembled and subsequently developed with a four-story, distribution center with up to 1,300,000 square feet of GBA (which we have adopted within our analysis). The facility will feature an intricate ramping system so that each of its four floors will be fully cross-docked and directly serviceable by full-size tractor trailers, according to a news release. The lower two stories will feature 32-foot clear heights, while the upper two stories will feature 28-foot clear heights. There was 367,219± square feet of industrial space on the site as of the transaction date, which is planned to be demolished, therefore, we have added a demolition estimate of $25.00 per square foot to the indicated sale price.
Land Area (Square Feet)	778,717± square feet
Land Area (Acres)	17.88± acres
Zoning (FAR)	M3-1 (2.0)
Indicated Sale Price **Plus: Est. Demo Costs** **Adj. Sale Price**	$255,000,000.00 $ 9,180,475.00 $264,180,475.00
Sale Price per Land Area (Sq. Ft.)	$339.25
Sale Price per Land Area (Acres)	$14,777,771

TAX MAP – LAND SALE #2

Block 638, Lots 10 and 72
Block 635, Lots 11 and 13



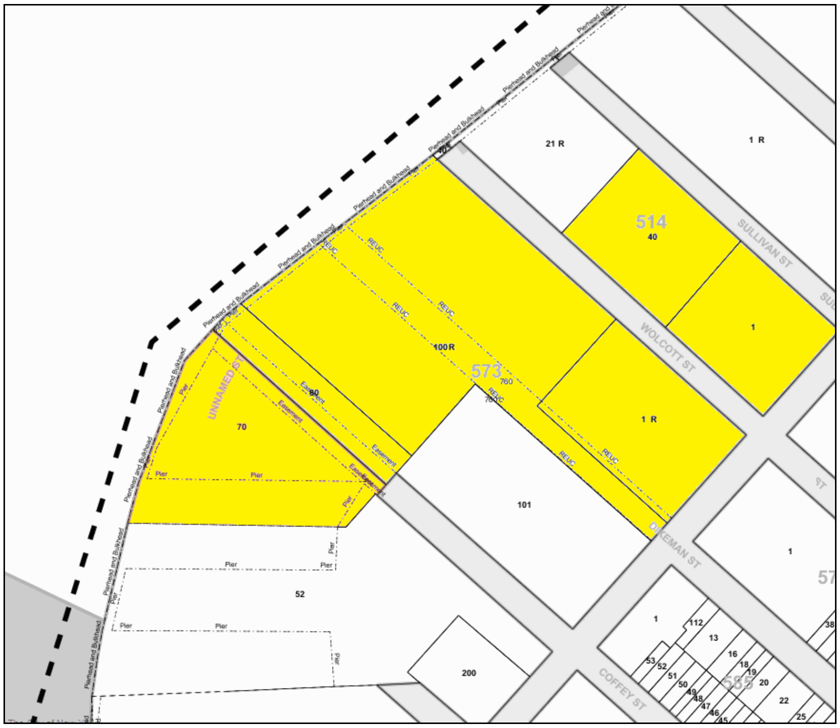
RENDERING OF PROPOSED DEVELOPMENT

Land Sale #3	**219 Sullivan Street**
Block 514, Lots 1 and 40	**44-68 Ferris Street**
Block 573, Lots 1, 80 and 100	**242-300 Coffey Street**
Block 595, Lot 70	**Red Hook, Brooklyn, NY**

Grantor / Grantee	Red Hook Industrial Center, LLC / BT Red Hook LLC
Date of Sale (Recorded)	12/19/2018 (12/24/2018)
CRFN	2018000422017
Description	Six parcels of irregular shaped parcels of land located on the west side of Ferris Street, east of the Upper New York Bay. The site will reportedly be constructed with a 1,200,000± square foot UPS distribution center. There was 494,562± square feet of industrial space on the site as of the transaction date, which is planned to be demolished, therefore, we have added a demolition estimate of $25.00 per square foot to the indicated sale price.
Land Area (Square Feet)	494,562± square feet
Land Area (Acres)	11.35± acres
Zoning (FAR)	M2-1 (2.0)
Indicated Sale Price **Plus: Est. Demolition Costs** **Adj. Sale Price**	$303,000,000.00 $ 8,675,000.00 $311,675,000.00
Sale Price per Land Area (Sq. Ft.)	$630.20
Sale Price per Land Area (Acres)	$27,451,691

TAX MAP – LAND SALE #3

Block 514, Lots 1 and 40
Block 573, Lots 1, 80 and 100
Block 595, Lot 70



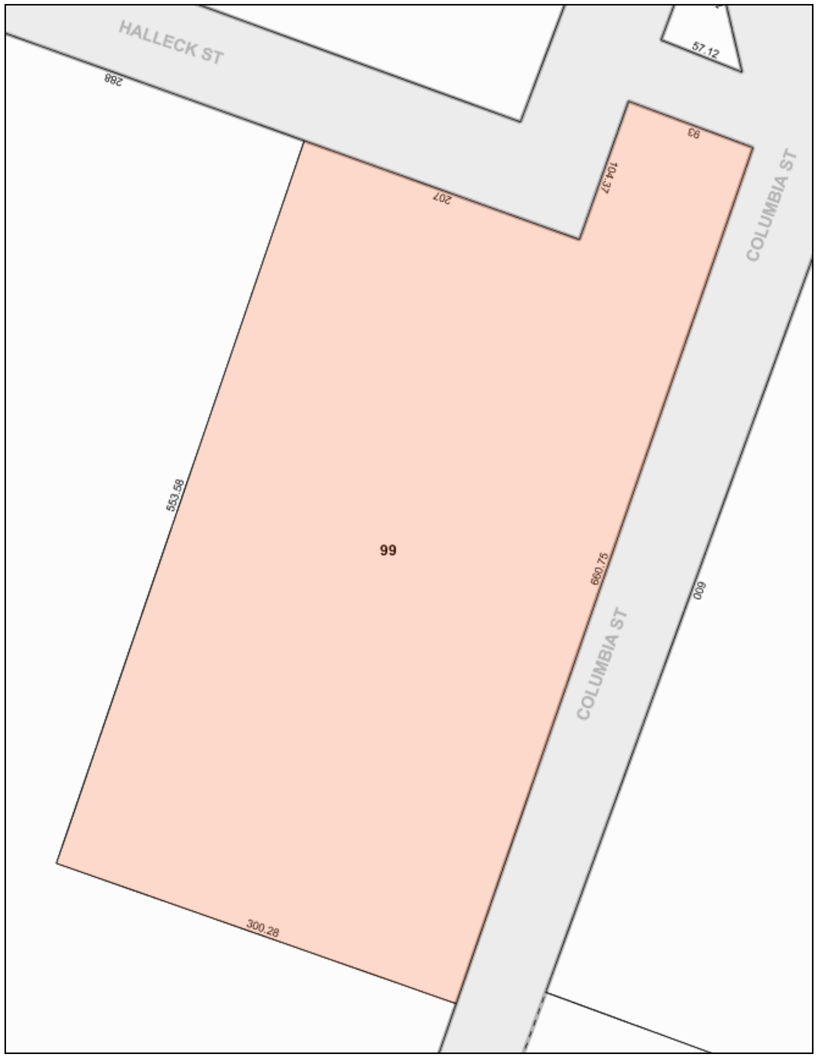
RENDERING OF PROPOSED DEVELOPMENT

Land Sale #4	**640 Columbia Street**
Block 612, Lot 99	**Red Hook, Brooklyn, NY**

Grantor / Grantee	Columbia-Halleck LLC / 640 Columbia Owner LLC
Date of Sale (Recorded)	2/14/2018 (2/20/2018)
CRFN	2018000059119
Description	One (1) irregular parcel of vacant land located in the Red Hook neighborhood of the Borough of Brooklyn. The site possesses frontage on two (2) sides; Columbia and Halleck Streets. The site is zoned M3-1 for heavy industrial use by the City of New York. According to the NYC Department of Buildings, there was a permit issued on 8/28/2019 for the construction of a three-story, 335,813± square foot commercial building (Permit No. 321383007).
Land Area (Square Feet)	176,041± square feet
Land Area (Acres)	4.04± acres
Zoning (FAR)	M3-1 (2.0) – *City of New York*
Indicated Sale Price	$47,500,000.00
Sale Price per Land Area (Sq. Ft.)	$269.82
Sale Price per Land Area (Acres)	$11,753,512

TAX MAP – LAND SALE #4

Block 612, Lot 99

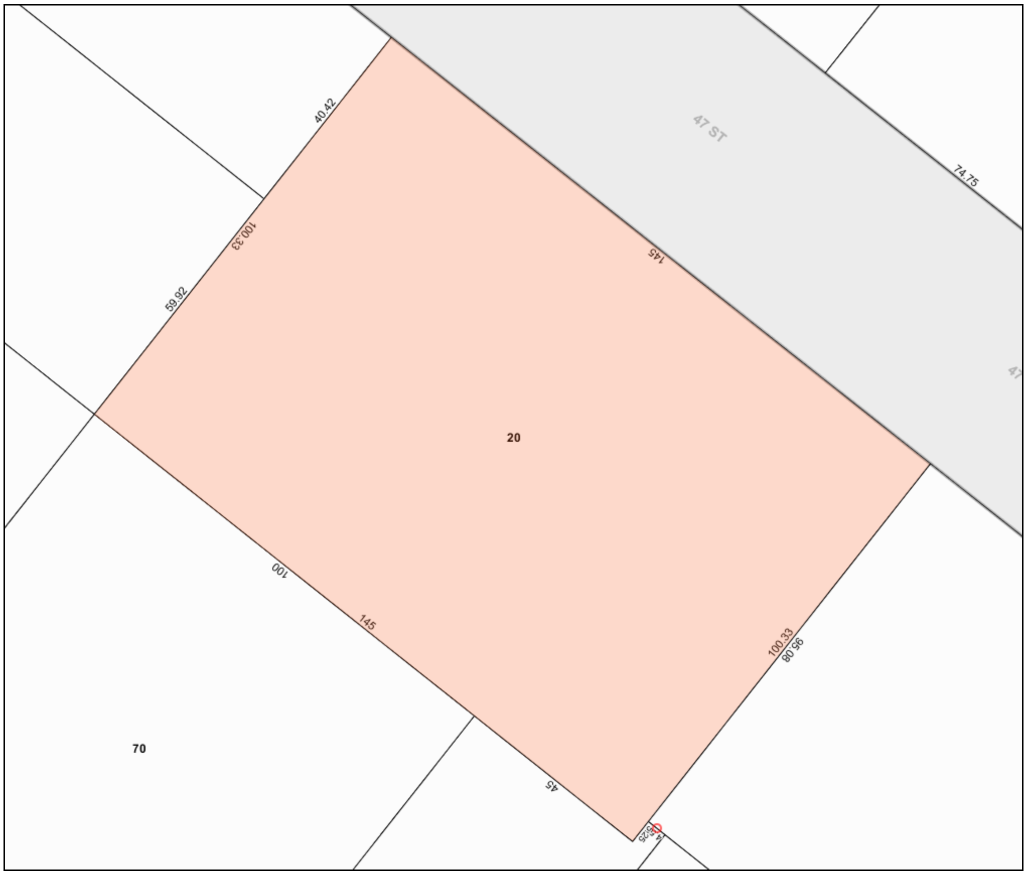


Land Sale #5	**47th Street**
Block 762, Lot 20	**Sunset Park, Brooklyn, NY**

Grantor / Grantee	4717 1st Avenue Realty Corp. / Don-Crete LLC
Date of Sale (Recorded)	9/19/2017 (9/22/2017)
CRFN	2017000353028
Description	One (1) rectangular parcel of vacant land located in the Sunset Park neighborhood of the Borough of Brooklyn. The site possesses frontage on 47th Street and is found just east of the subject property. The site is zoned M3-1 for heavy industrial use by the City of New York.
Land Area (Square Feet)	14,558± square feet
Land Area (Acres)	0.33± acres
Zoning (FAR)	M3-1 (2.0) – *City of New York*
Indicated Sale Price	$3,500,000.00
Sale Price per Land Area (Sq. Ft.)	$240.42
Sale Price per Land Area (Acres)	$10,472,592

TAX MAP – LAND SALE #5

Block 762, Lot 20

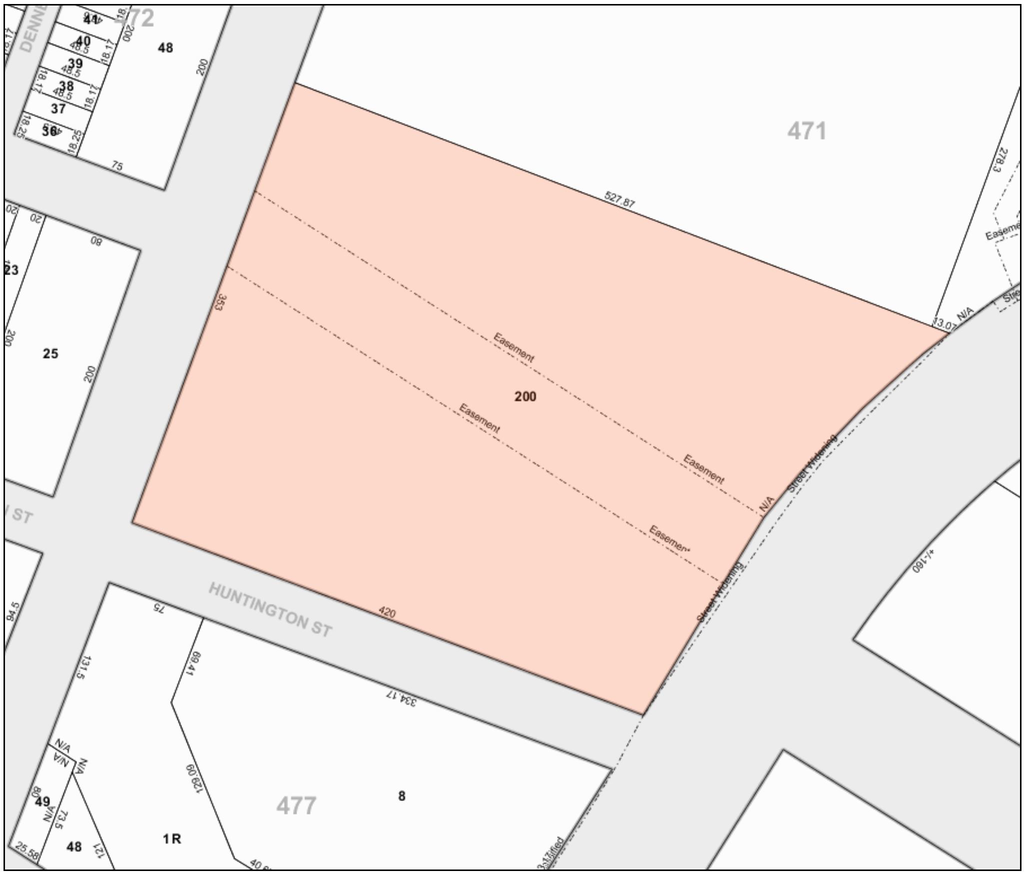


Land Sale #6	**455-479 Smith Street**
Block 471, Lot 200	**Gowanus, Brooklyn, NY**

Grantor / Grantee	Vichar Inc. / Smith Street Owner
Date of Sale (Recorded)	7/21/2017 (7/25/2017)
CRFN	2017000273025
Description	One (1) irregular parcel of vacant land located in the Gowanus neighborhood of the Borough of Brooklyn. The site possesses frontage on two (2) sides; Huntington and Smith Streets, and also features frontage along the Gowanus Canal. The site is zoned M3-1 for heavy industrial use by the City of New York.
Land Area (Square Feet)	165,840± square feet
Land Area (Acres)	3.81± acres
Zoning (FAR)	M3-1 (2.0) – *City of New York*
Indicated Sale Price	$48,000,000.00
Sale Price per Land Area (Sq. Ft.)	$289.44
Sale Price per Land Area (Acres)	$12,607,815

TAX MAP – LAND SALE #6

Block 471, Lot 200



CORRELATION AND VALUE CHOICE

In estimating the market value of the subject property, we have considered the three approaches to value:

Cost Approach

The *Cost Approach* assumes that an informed purchaser would pay no more for a property than the cost of producing a similar investment. This approach entails estimating the value of the land as if vacant, which is then added to the depreciated value of the improvements. This is considered a valid indicator when the property is new and there are a sufficient number of land sales.

We have not performed the *Cost Approach* in this appraisal report because the subject property consists of a land currently underwater (i.e., vacant land).

Income Capitalization Approach

The *Income Capitalization Approach* values the future benefits (in the form of steady income) from an income-producing property by measuring the potential net income received. This approach is significant in determining the market value of a property where investors purchase the income-producing real estate for its earning power.

The *Income Capitalization Approach* to value has not been performed in this appraisal since the property consists of currently underwater land (i.e., vacant land), which is not a typical income producing property type.

Sales Comparison Approach

The major premise of the *Sales Comparison Approach* is the principle of substitution, which states that an informed and knowledgeable purchaser would pay no more for a property than the cost of acquiring an existing property with similar investment features. We have employed the *Sales Comparison Approach* in this assignment.

New York State Regulation 270-6.8 notes that "State-owned land under water shall be appraised based upon the value of adjacent upland." As such, we have been requested to determine the unit value of the adjacent upland, as though vacant. New York State will then apply that unit value in-house to the area of the State-owned land under water ("Parcel 2"), subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc.

We have identified a number of meaningful transfers of similar zoned land sales in the subject's market area, which we have relied upon to develop an opinion of the fee simple estate market value of the subject property. The process required us to individually analyze and compare each land sale to the subject and make adjustments to the per square foot of land area values for market-sensitive differences between each comparable sale and the subject property ("Parcel 1"). The appropriately adjusted sales provide an indication of value for "Parcel 1". New York State will then apply that unit value in-house to the area of the State-owned land under water ("Parcel 2"), subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc. Therefore, in our valuation herein, we have not applied any discounts for "Parcel 2" consisting of underwater lands and/or the property rights consisting of an easement. Furthermore, at the request of our client, we have provided a market value opinion of the underlying land for the adjacent upland property identified as "Parcel 1" only.

FINAL VALUE CONCLUSIONS

We have relied upon the results of the Sales Comparison Approach to develop our final market value conclusion.

We are of the opinion that the fee simple estate market value of the underlying land of "Parcel 1", as of September 30, 2019, *predicated upon the underlying assumptions and limiting conditions as defined within the body of this report*, was:

THREE HUNDRED DOLLARS p*er Sq. Ft. of Land Area*

($300.00 *per Sq. Ft.*)

OR

THIRTEEN MILLION SEVENTY THOUSAND DOLLARS p*er Acre*

($13,070,000.00 *per Acre*)

QUALIFICATIONS

The firm of Goodman-Marks Associates, Inc., with offices located at 170 Old Country Road, Mineola, New York, 420 Lexington Avenue, New York, New York and 55 Madison Avenue, Morristown, New Jersey, is a licensed real estate broker in the State of New York. Members of the firm are licensed real estate appraisers in the States of New York and New Jersey.

The firm has furnished real estate appraisals to financial institutions for mortgage and sale purposes, and many of these valuation assignments have been performed throughout the country.

The types of assignments that we typically handle encompass all facets of the real estate appraisal/consultation spectrum. These have included office buildings (both urban and suburban), shopping centers (strip, neighborhood and regional mall), freestanding department stores, fast-food buildings, gas stations, apartment houses (both urban and suburban; high-rise and garden type), cooperative and condominium residential housing (to be developed as well as to be converted), mixed-use development, hotels and motels, industrial and warehouse facilities and vacant land. Special types have included banks, auto showrooms, theaters, schools, bowling alleys, golf courses, nursing homes, etc.

Members of the firm have testified as to the value of land and buildings before the Supreme Court of the State of New York, the Court of Claims of New York State and the United States Federal Court.

The above history, the additional personal experience, affiliations, numerous similar properties appraised and education of the appraisers, as outlined on this and the following pages, qualify them as competent to complete this assignment.

MATTHEW J. GUZOWSKI, MAI, MRICS, PRESIDENT
GOODMAN-MARKS ASSOCIATES, INC.

GENERAL EXPERIENCE

Over 33 years as a commercial real estate appraiser and consultant

Testified as an expert witness – New York State Supreme Court, New York County
New York State Supreme Court, Queens County
New York State Supreme Court, Kings County
New York State Supreme Court, Nassau County
New York State Supreme Court, Suffolk County
U.S. District Court, Eastern District of New York
U. S. Bankruptcy Court, Kings County
Civil Court of the City of New York, Kings County
District Court, Landlord & Tenant Court, Suffolk County
Zoning and Arbitration Testimony, Nassau County

EMPLOYMENT

4/91 to Date: *Goodman-Marks Associates, Inc.*

President preparing narrative appraisal reports of income-producing and other properties to determine market valuations. These reports are used for mortgage purposes, settlement of estates, real estate tax certiorari actions and condemnation cases.

1/83 to 4/91: *New York City Economic Development Corporation*
161 William Street
New York, New York

Vice President of appraisal services preparing narrative appraisal reports and reviewing fee appraisals to determine the market value of real estate for disposition, development and lease.

EDUCATION

College: St. John's University
Degree: MBA – Finance
December, 1989

Queens College, C.U.N.Y.
Degree: BA – English
January, 1981

Professional: Appraisal Institute
Courses successfully completed:

1A1 - Real Estate Appraisal Principles
1A2 - Basic Valuation Procedures
SPP - Standards of Professional Practice
1BA - Capitalization Theory & Techniques - Part A
1BB - Capitalization Theory & Techniques - Part B
2-1 Case Studies in Real Estate Valuation
2-2 Report Writing and Valuation Analysis

Seminars attended:

Arbitration in Real Estate
Real Estate Financial Statement Analysis

MATTHEW J. GUZOWSKI, MAI, MRICS, PRESIDENT
GOODMAN-MARKS ASSOCIATES, INC. (continued)

PROFESSIONAL MEMBERSHIP

Appraisal Institute - MAI Designation #10114
Long Island, New York Chapter
Chairman – Admissions Committee, Long Island Chapter, 2000-2006
Chairman – Budget & Finance Committee, Long Island Chapter, 2007
Treasurer – Long Island Chapter, 2007
Secretary – Long Island Chapter, 2008
Vice President – Long Island Chapter, 2009
Senior Vice President – Long Island Chapter, 2010
President – Long Island Chapter, 2011

The Royal Institution of Chartered Surveyors I.D. #6404964

REBNY – Membership I.D. #49202

Community Bankers Mortgage Forum

International Right of Way Association I.D.#7902612

GUEST LECTURER New York University – Real Estate Institute

LICENSES Certified General Real Estate Appraiser
State of New York Certificate #468986
State of New Jersey Certificate #42RG00146100
State of Connecticut Certificate #RCG0001210
New York State Salesperson License #10401205644

MATTHEW F. BOYLAN, MAI, EXECUTIVE VICE PRESIDENT
GOODMAN-MARKS ASSOCIATES, INC.

EMPLOYMENT

7/07 to Present: *Goodman-Marks Associates, Inc.*

Executive Vice President preparing advanced narrative appraisal reports of income-producing and other properties to determine market valuations. Assignments include financing for many local and national lenders, government/municipality work, real estate tax certiorari actions, condemnation, litigation, arbitration, estate planning and large-scale downtown revitalization projects among other things. Over the past several years Matthew has concentrated his work in the New York City market, including each of the five (5) Boroughs. Matthew also has experience valuing commercial property in a variety of markets including Long Island, Westchester, New Jersey, Connecticut, Boston, Raleigh and Washington DC.

EDUCATION

Professional:

Courses successfully completed:
Appraisal Institute
Course 100GR – Basic Appraisal Principles
Course 101GR – Basic Appraisal Procedures
Course 300GR – Real Estate Finance Statistics and Valuation Modeling
Course 401G – General Appraiser Sales Comparison Approach
Course 400G – General Appraiser Market Analysis and Highest & Best Use
Course N403G – General Appraiser Income Approach/Part 1
Course N404G – General Appraiser Income Approach/Part 2
Course 402G – General Appraiser Site Valuation and Cost Approach
Course N420DM – Business Practices and Ethics
Course 405G – General Appraiser Report Writing and Case Studies
AQ-GE-1 – Fair Housing, Fair Lending and Environmental Issues
Course 501GD – Advanced Income Capitalization
Course 503GD – Advanced Concepts & Case Studies
General Demonstration Report – Capstone Program

New York University
USPAP - Uniform Standards of Professional Appraisal Practice

New York Real Estate Institute
GE-3 – Using the HP12C Financial Calculator

College:

Buffalo State College, Buffalo, New York
Bachelor of Science Degree
Major: Business Administration
2003-2007

PROFESSIONAL MEMBERSHIP

Appraisal Institute - MAI Designation

LICENSE

Certified General Real Estate Appraiser
New York State Certificate #4651008

BRENTLY LETTS, ASSOCIATE
GOODMAN-MARKS ASSOCIATES, INC.

EMPLOYMENT

4/17 to Date: ***Goodman-Marks Associates, Inc.*** – Associate

Staff appraiser preparing narrative appraisal reports of income-producing and other properties to determine market valuations. These reports are used for mortgage purposes, settlement of estates, litigation, real estate tax certiorari actions and condemnation cases.

EDUCATION

College: ***University of Maryland, College Park***
Bachelor of Science
Major: Economics, Minor: Innovation and Entrepreneurship
May, 2016

Professional: Courses successfully completed:

Mckissock Learning
General Appraiser Income Approach
General Appraiser Sales Comparison Approach
General Appraiser Site Valuation and Cost Approach
General Market Analysis and Highest/Best Use
General Appraiser Report Writing and Case Studies
Statistics, Modeling & Finance
Expert Witness for Commercial Appraisers - Subject Matter Elective
Commercial Appraisal Review - Subject Matter Elective

Appraisal Institute
Supervisory Appraiser/Trainee Appraiser Course

OnCourse Learning
Basic Appraisal Principles
Basic Appraisal Procedures
National Uniform Standards of Professional Appraisal Practice (USPAP)

ADDENDA

CURRENT TAX BILL – LOT 150 (REUC C132-85EP)

NYC Department of Finance

Statement Details

August 26, 2019
Astoria Gen Co LP
3-70132-1414
Page 2

Billing Summary	Activity Date	Due Date	Amount
Outstanding charges including interest and payments			$0.00
Total amount due			**$0.00**

Tax Year Charges Remaining	Activity Date	Due Date	Amount
Finance-Utility Property		01/01/2020	$931,378.40
Total tax year charges remaining			**$931,378.40**
If you want to pay everything you owe by October 1, 2019 please pay			**$931,378.40**

Overpayments/Credits	Activity Date	Due Date	Amount
Refund Available		07/01/2018	$-236,354.72
Credit Applied	06/17/2019		$236,354.72
Refund Available		01/01/2019	$-236,354.72
Credit Applied	06/17/2019		$236,354.72
		Total credit applied	$472,709.44
Total overpayments/credits remaining on account			**$0.00**

You must apply for a refund or a transfer of credits resulting from overpayments within six years of the date of the overpayment or credit. Please note that overpayments and credits are automatically applied to unpaid taxes.

Annual Property Tax Detail

Tax class 4 - Commercial Or Industrial	**Overall Tax Rate**	
Current tax rate	10.5140%	
Estimated Market Value $42,270,000		
		Taxes
Billable Assessed Value	**$17,716,918**	
Taxable Value	$17,716,918 x 10.5140%	
Tax Before Abatements and STAR	$1,862,756.80	**$1,862,756.80**
Annual property tax		**$1,862,756.80**

CURRENT TAX BILL – LOT 150 (REUC C132-85P)

NYC Department of Finance

Statement Details

August 28, 2019
Astoria Gen Co LP
3-70132-1413
Page 2

Billing Summary	Activity Date	Due Date	Amount
Outstanding charges including interest and payments			$0.00
Total amount due			**$0.00**

Tax Year Charges Remaining	Activity Date	Due Date	Amount
Finance-Utility Property		01/01/2020	$372,658.76
Total tax year charges remaining			**$372,658.76**
If you want to pay everything you owe by October 1, 2019 please pay			**$372,658.76**

Overpayments/Credits	Activity Date	Due Date	Amount
Refund Available		07/01/2018	$-77,369.16
Credit Applied	06/17/2019		$77,369.16
Refund Available		01/01/2019	$-77,369.16
Credit Applied	06/17/2019		$77,369.16
		Total credit applied	$154,738.32
Total overpayments/credits remaining on account			**$0.00**

You must apply for a refund or a transfer of credits resulting from overpayments within six years of the date of the overpayment or credit. Please note that overpayments and credits are automatically applied to unpaid taxes.

Annual Property Tax Detail

	Overall Tax Rate	Taxes
Tax class 4 - Commercial Or Industrial		
Current tax rate	10.5140%	
Estimated Market Value $17,451,000		
Billable Assessed Value	**$7,088,810**	
Taxable Value	$7,088,810 x 10.5140%	
Tax Before Abatements and STAR	$745,317.52	**$745,317.52**
Annual property tax		**$745,317.52**

CURRENT TAX BILL – LOT 10 (REUC C132-84)

Department of Finance

Statement Details

August 28, 2019
Astoria Gen Co LP
3-70132-1401
Page 2

Billing Summary	Activity Date	Due Date	Amount
Outstanding charges including interest and payments			$0.00
Total amount due			**$0.00**

Tax Year Charges Remaining	Activity Date	Due Date	Amount
Finance-Utility Property		01/01/2020	$15,107.06
Total tax year charges remaining			**$15,107.06**
If you want to pay everything you owe by October 1, 2019 please pay			**$15,107.06**

Annual Property Tax Detail

	Overall Tax Rate	Taxes
Tax class 4 - Commercial Or Industrial		
Current tax rate	10.5140%	
Estimated Market Value $772,000		
Billable Assessed Value	$287,370	
Taxable Value	$287,370 x 10.5140%	
Tax Before Abatements and STAR	$30,214.12	**$30,214.12**
Annual property tax		**$30,214.12**

CURRENT TAX BILL – LOT 10 (REUC C132-85)

Department of Finance

Property Information | Apply for Exemptions | Get Help

Property Address Search | BBL Search | REUC Search

REUC Identification Search

Borough * (3) Brooklyn
Identification Number * C132-85

Options Sort by: BBL Ascending Results/page: 15 **Search**

* required Data Current as of November 05, 2019

Your search did not find any records.

Suggestions:

1. Check that you entered the number correctly
2. Try using another search method
3. Find a property address or BBL by clicking this link: **Office of the City Register Lookup**

EXHIBIT B

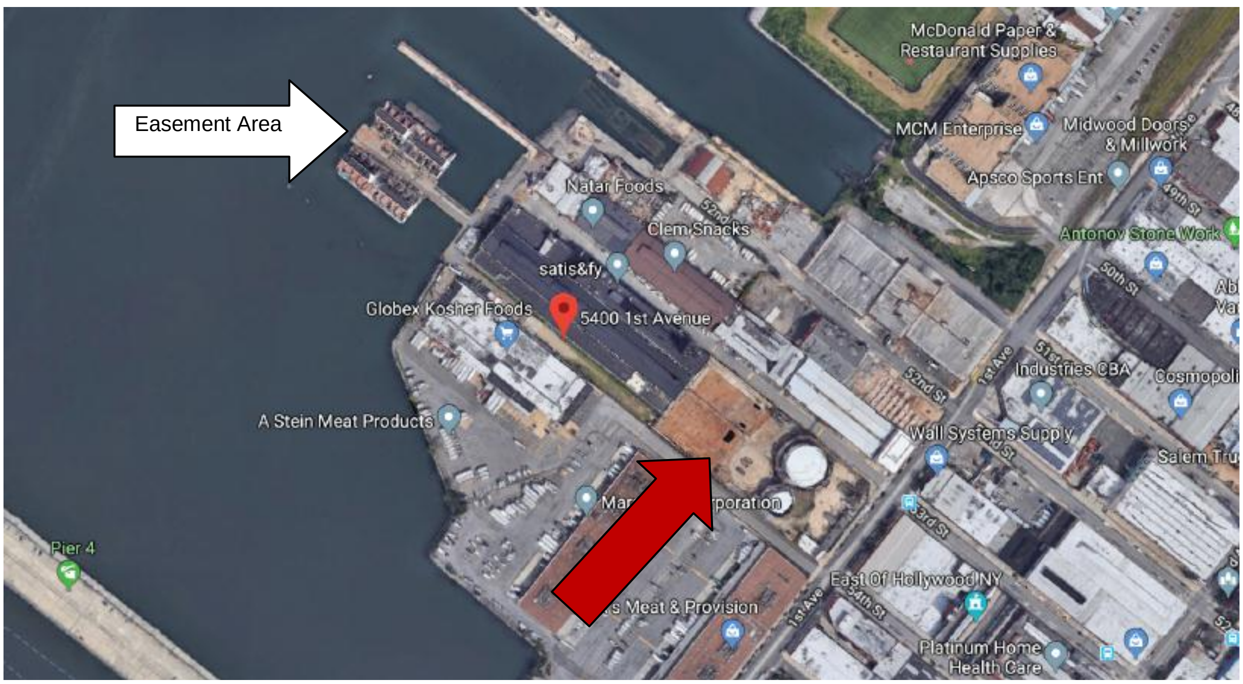
APPRAISAL REPORT OF

A 6.591 Acre Industrially-Zoned Site (Known as Parcel 1)
In Connection with an Easement for The Narrows Gas Turbine Facility (Known as Parcel 2)

Consists of Two Zoning Lots Fronting the West Side of 1st Avenue
Between 52nd & 54th Street Running West to the US Pierhead Line of Upper New York Bay
Block 803 Lots 10 & 150
Sunset Park, Brooklyn, New York 11220

Market Value Estimate
As per Client's Special Assignment Assumption &
In Accordance with Definition Provided by Office of General Management

As of November 13, 2019



Prepared For:

Liam Baker, Vice President
Astoria Generating Company LP
300 Atlantic Street, 5th floor
Stamford, CT 06901

By:
Jacques O. Tuchler & Associates
26 Court Street, Suite 2301
Brooklyn, New York 11242

Jacques O. Tuchler & Associates

REAL ESTATE APPRAISERS & CONSULTANTS

26 Court Street • Suite 2301 • Brooklyn, New York 11242 • Tel (718) 625-2080 • Fax (718) 797-5531 • E-mail: tuchlerassociates@att.net

January 6, 2020

Liam Baker, Vice President
Astoria Generating Company LP
300 Atlantic Street, 5th floor
Stamford, CT 06901

**Subject: 6.591 Acres of Industrially-Zoned Land (Known as Parcel 1)
At 1st Avenue between 52nd & 54th Streets
Block 803 Lots 9 + 150 – ("The Property")
Sunset Park, Brooklyn, NY 11220**

Dear Mr. Baker,

At your request, I have appraised The Property for the purpose of estimating its market value as of the November 13, 2019 inspection date in accordance with my client's following special assignment assumption (also referred to as "special assignment condition") and as defined by the Office of General Services:

New York State Regulation 270-6.8 notes that "State-owned land under water shall be appraised based upon the value of adjacent upland". In other words, an appraisal report is needed to determine the unit value of the adjacent upland, as though vacant. We then apply that unit value in-house to the area of the State-owned land under water, subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc."

The appraiser was informed by the client that The Property consists of 6.591 acres of upland and although improved with various industrial structures, the scope of the appraisal is to estimate its value as vacant land, free of any environmental conditions and with riparian rights. The purpose of this appraisal is for the negotiation of a lease extension between my client and the Office of General Services for an underwater 3.969 acre easement immediately to the west of The Property for the Narrows Gas Turbine facility which contains 4 gas turbine units and substation sitting atop of the cited area.

Based upon an inspection of The Property and in accordance with the market value definition and special assignment assumption provided by the client as stated above, as well as an investigation and analysis of all available pertinent data, the Market Value estimate for the fee simple estate as of November 13, 2019, is:

EIGHTY THREE MILLION DOLLARS ($83,000,000)[1]

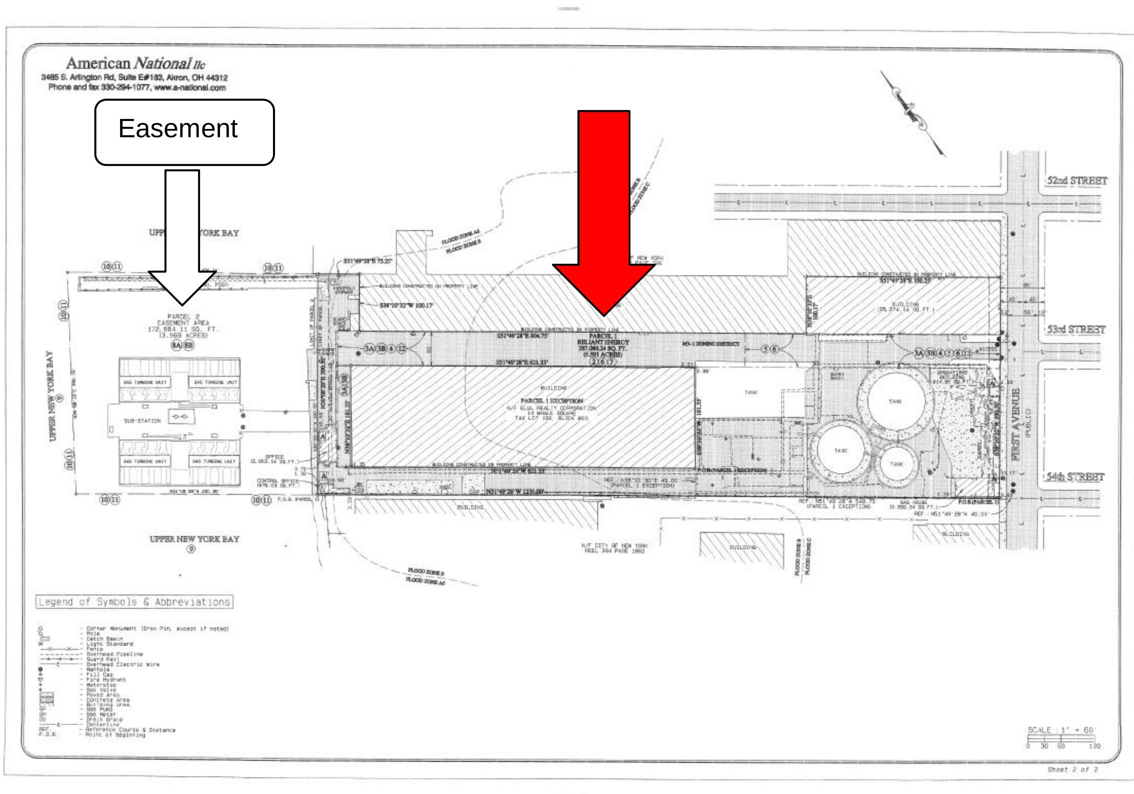
Definitions of pertinent appraisal terminology, the assumptions and limiting conditions of this appraisal, descriptions of the property and market in which it competes, the approaches used to derive our opinion of market value, and documentation in support of my opinions and conclusions are included in the accompanying appraisal report. The appraisal has been prepared in conformance with Title XI of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), the Uniform Standards of Professional Appraisal Practice (USPAP) as promulgated by the Appraisal Standards Board of the Appraisal Foundation and Standards of Professional Appraisal Practice of the Appraisal Institute.

Respectfully submitted,

Michael Silber, Managing Director
NYS Certified General Appraiser #46-2889

[1] Equivalent to $12,593,103 Price Per Acre.

Survey of The Property (Parcel 1)



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Assumptions and Limiting Conditions

1. No opinion is intended to be expressed for legal or other matters which would require specialized investigation or knowledge beyond that ordinarily employed by real estate appraisers, although such matters may be discussed herein.

2. No opinion on title is rendered. Title data was obtained from sources deemed reliable. Title is assumed to be marketable and free and clear of all liens and encumbrances, easements and restrictions, except those specifically discussed in the report. The property is appraised assuming responsible ownership, competent management, and availability for its highest and best use.

3. The appraisers have not made an engineering survey. Except as specifically stated, sizes and areas were taken from sources deemed reliable. No encroachment of real property improvements is assumed to exist, unless otherwise stated in this report.

4. Maps, plats and exhibits included herein are for illustration only, as an aid in visualizing matters discussed within the report. They should not be considered as surveys, or relied upon for any other purpose.

5. The information furnished by others is believed to be reliable. No warranty, however, is given for its accuracy.

6. Unless otherwise stated in this report, the appraisers are not aware of any hidden or unapparent conditions of the site, subsoil or structures rendering the property more or less valuable, and assume no obligation therefor, or for arranging engineering studies that may be required for discovery.

7. We assume full compliance with all applicable federal, state and local environmental regulations and laws unless otherwise stated in this report, and that all applicable zoning and use regulations and restrictions have been complied with, unless nonconformity is stated, defined and considered in this report.

8. This appraisal assumes that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state, or national government or private entity, etc. have been or can be obtained or renewed for any use upon which the reported value estimates is based.

9. The appraisers found no obvious evidence of structural deficiencies, except if otherwise stated in this report. No obligation for hidden defects or conformity to specific governmental requirements (fire, building safety, earthquake, or occupancy codes) can be assumed without provision of specific professional or governmental inspections.

10. No consideration was given to personal property located on the premises or to the cost of moving or relocating such items; the appraisal considered only the real property.

11. Areas discussed in this appraisal report were calculated in accord with standards developed by The American Standards Association (included in Real Estate Terminology).

12. The appraisers are not qualified to detect the existence or extent of potentially hazardous material on or near the site. The existence of such substances usually has an adverse effect on real property. No consideration is given in our analysis to any potential diminution in value for the cost to remove such hazardous materials if they do exist.

13. The Americans with Disabilities Act ("ADA") became effective January 26, 1992. As vacant land with curb cuts, it is reasonable to assume that this property conforms to the various detailed requirements of the ADA. However, if a compliance survey and detailed analysis of the Act reveals that it is not in compliance with one or more of its requirements, this fact could have a negative effect on value. Because we have no direct evidence relating to this issue, possible noncompliance with ADA requirements is not considered.

14. Possession of this report, or a copy, does not carry with it the right of publication. It may not be used for any purpose by any person other than the addressee and, in any event, only with properly written qualification, and only in its entirety.

15. The appraisers by reason of this appraisal are not required to give further consultation, testimony, or attend court as to this property unless prior arrangements have been made.

16. Projections used to assist in the valuation process are based on market conditions and anticipated short term supply/demand factors (as of the valuation date) and a continued stable economy. Thus, they are subject to changes in future conditions that cannot be accurately predicted by the appraisers and which could affect future income or value.

17. ***As per the client's request, the appraisal assumes that The Property is unimproved vacant land with riparian rights and free of any adverse environmental conditions. It is also subject to the special assignment assumption as described in the Letter of Transmittal.***

18. ***The appraisal assumes that the land area appraised provided by the client is accurate. If any information is found contrary to what was provided, the appraiser reserves the right to amend the value estimate.***

18\. Acceptance or use of this appraisal report constitutes acceptance of these Assumptions and Limiting Conditions, and the statements in our Certification.

Salient Property Data and Conclusions

6.591 Acre Industrially-Zoned Site
Sunset Park, Brooklyn, New York 11220

Location: Various Parcels on Westerly Blockfront of 1st Avenue Between 52nd & 54th Street Running West to US Pierhead Line of Upper NY Bay.

Tax Block/Lot: Block 803 Lots 10 & 150, Kings County, City & State of NY

Census Tract: 18

The Property: 6.591 acre industrially-zoned site considered to be unimproved vacant upland with riparian rights and free of any adverse environmental conditions as per the client's special assignment assumption. Valuation is in connection with lease renewal for the following easement.

The Easement: A 3.969 acre underwater site encumbered by an easement agreement between Astoria Generating Company Acquisitions, L.L.C. (client & lessee) and the Office of General Services (lessor) for the Narrows Gas Turbine facility. As per the site plan provided by the client and the appraiser's observation, there are 4 gas turbine units and substation situated on this site. The easement was established for the maintenance, operation, repair and replacement of bulkhead, piers, structures and gas turbine barges via an agreement initially between Consolidated Edison Corporation of New York Inc. (subsequently assigned to Astoria Generating Company L.P.) and the State of New York.

Zone: M3-1 “Industrial” – Heavy Industrial

Flood Zone: Zone AE, VE, X – 0.2 PCT Chance of Flood
In a FEMA Special Flood Hazard Area

Neighborhood: Sunset Park: A predominantly, lower- to lower-middle income residential neighborhood with extensive industrial development in the westerly portion of the neighborhood, particularly between 3rd Avenue and Upper New York Bay. Large industrial complexes include Industry City/Bush Terminal, The Brooklyn Army Terminal and Sunset Industrial Park.

Highest & Best Use: Manufacturing/Industrial/Commercial

Valuation: As of November 13, 2019
By the Sales Comparison Approach (Sole Approach Used)

Market Value Estimate
As Per OGS' Definition of Market Value: $83,000,000[2]

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[2] **Equivalent to $12,593,103 Price Per Acre.**

Introduction

The Property:

6.591 acre M3-1 industrially-zoned upland site with riparian rights as well as some waterfront access. In accordance with the client's special assignment assumption, it is considered to be unimproved vacant upland and free of any adverse environmental conditions. The easement is 3.969 acre underwater site occupied as the Narrows Gas Turbine facility via an agreement between Astoria Generating Company Acquisitions, L.L.C (the client & Lessee) and the Office of General Services (lessor) for the Narrows Gas Turbine facility.

Purpose and Intended User of the Appraisal: As indicated earlier in the report, as per the client's special assignment assumption and in accordance with OGS's definition of market value, the site is to be considered unimproved (vacant land). The purpose of the appraisal is to provide a market value estimate of the fee simple estate in the subject property as unimproved, subject to the client's special assignment assumption, as of November 13, 2019, the date of inspection, to negotiate a lease extension for the adjacent underwater easement agreement between my client and their landlord. The intended users are Astoria Generating Company LP and/or related entities as well the Office of General Services.

SCOPE OF THE APPRAISAL

The primary work in the appraisal process involved inspecting the Property, collecting and analyzing pertinent data, considering market characteristics and trends for properties of its type, and deriving the market value opinion noted above in Purpose of the Appraisal in compliance with client guidelines, *Title X1 of the Financial Institutions Reform, Recovery and Enforcement Act (FIRREA)*, The *Appraisal Foundation's Uniform Standards of Professional Appraisal Practice (USPAP)*, and *The Appraisal Institute's Code of Professional Ethics & Standards of Professional Practice*. **Only one (1) of the three (3) traditionally accepted approaches to value – Sales Comparison was requested and used in the valuation process**.

Dates Pertinent to the Appraisal

Date of the Appraisal Report... January 06, 2020

Inspection and Effective Date of Appraisal………………........ November 13, 2019

Introduction

Property Interest Appraised: Fee Simple Estate: Absolute ownership unencumbered by any other interest or estate, subject only to limitations imposed by governmental powers of taxation, eminent domain, police power and escheat.[3]

Market Value Defined: "The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition are the consummation of a sale as of a specific date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated.
2. Both parties are well-informed or well-advised, and acting in what they consider their own best interests.
3. A reasonable time is allowed for exposure in the open market.
4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
5. Price represents normal consideration for property sold unaffected by special or creative financing or concessions granted by anyone associated with the sale.
6.

(Source: Title 12 Code of Federal Regulations Sec. 1608.2 Definitions (f)

Office of General Services Definition of Market Value:

New York State Regulation 270-6.8 notes that "State-owned land under water shall be appraised based upon the value of adjacent upland". In other words, an appraisal report is needed to determine the unit value of the adjacent upland, as though vacant. We then apply that unit value in-house to the area of the State-owned land under water, subsequently other percentage discounts may or may not be applied to reflect riparian rights, easements, etc.

Exposure & Marketing Time: Based on opinions of local real estate brokers and other informed market participants, exposure time (precedes effective date of valuation) to achieve a sale at the opinion of the As Is market value would have been six months to one-year, with marketing time (from effective date of valuation) at about the same time period.

Title Data: Property was acquired by Astoria Generating Company LP from Consolidated Edison Company of NY Inc. via deed dated 8/20/99 along with other properties as well as the assignment of the easement agreement for the site adjacent to The Property. There have been no conveyances over the last five (5) years.

[3] The Dictionary of Real Estate Appraisal, 8th Edition. Chicago: The Appraisal Institute, 2010. Unless otherwise specified, all definitions in the report were obtained from this source.

Introduction

Legal Description: Parcel 1

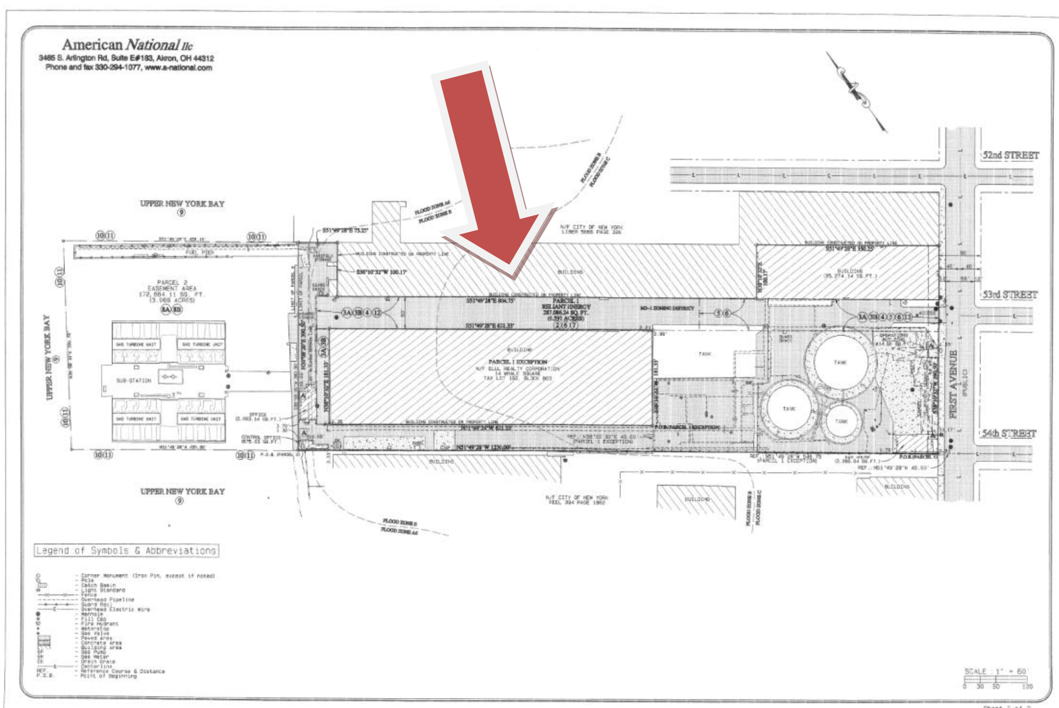
Block 803 Lots 10 & 150, Borough of Brooklyn, Kings County, City/State of New York

Abstracted from Deed

EXCEPTING THEREFROM all that certain lot or parcel of ground situate in the Borough of Brooklyn, City of New York, County of Kings, State of New York, bounded and described as follows:

Beginning at a point located on the projected centerline of 54th Street, said point being situate North fifty-one degrees forty-nine minutes and twenty-eight seconds West (N 51°49'28" W) a distance of five hundred eighty-eight and seventy-five hundredths feet (588.75') and North thirty-eight degrees ten minutes and thirty-two seconds East (N 38°10'32" E) a distance of forty-nine and no hundredths feet (49.00') from a point located at the intersection of the aforementioned projected centerline of 54th Street with the centerline of First Avenue; THENCE FROM THE PLACE OF BEGINNING, North fifty-one degrees forty-nine minutes and twenty-eight seconds West (N 51°49'28" W) for a distance of six hundred twenty-one and thirty-three hundredths feet (621.33') to a point; thence, North thirty-eight degrees ten minutes and thirty-two seconds East (N 38°10'32" E) for a distance of one hundred eighty-one and thirty-three hundredths feet (181.33') to a point; thence, South fifty-one degrees forty-nine minutes and twenty-eight seconds East (S 51°49'28" E) for a distance of six hundred twenty-one and thirty-three hundredths feet (621.33') to a point; thence, South thirty-eight degrees ten minutes and thirty-two seconds West (S 38°10'32" W) for a distance of one hundred eighty-one and thirty-three hundredths feet (181.33') to the place of beginning.

Containing 287,086.24 Square Feet (6.591 Acres).



Scope of the Investigation

In the valuation process, the appraiser made a number of independent investigations and analyses, and referred to data retained in the office files, updated regularly for use in all assignments. Following are the investigations undertaken and major data sources.

Area & Neighborhood Analysis

Referred to current files and publications on the region, neighborhood, local and market areas for demographics, land use policies and trends, growth forecasts, and employment data. Additional information was obtained online, from the appraisers' tour and knowledge of the area and neighborhood, and informed market participants, including active real estate brokers.

Site Description & Analyses

Lot dimensions were obtained from the Client, Deed of Record and City Tax Map.

Market Data Program

Comparable sales were obtained by reviewing county records on sites in the subject market area as well as those in competing areas, and by examining Comps, Inc. and New York City Department of Finance (ACRIS) recent recordings. Copies of deeds, tax maps and financing instruments were reviewed online. Attempts were made to contact buyers, sellers, brokers and/or other interested parties to verify transaction data and ensure arm's length status of the sales. Those sales deemed most comparable to The Property are detailed and analyzed in this report.

Regional Map

Brooklyn Overview

Brooklyn with +/- 2.6 million people is the most populous of New York City's five boroughs. It is geographically adjacent to the borough of Queens at the western end of Long Island, extends 71+ square miles, has a 33-mile waterfront, and is separated from Manhattan by the East River. Its southern coast includes the peninsula on which stretch Coney Island, Brighton and Manhattan Beaches. The southeastern coast lies on island-dotted Jamaica Bay. Its highest point is around Prospect Park and Greenwood Cemetery, rising 200' above sea level; a minor elevation is in Brooklyn Heights.

Brooklyn's job market is driven by performance of the national/city economy, population flows, and the borough's position as a convenient back office for Manhattan businesses (like in MetroTech). According to a March 1, 2016 article in Crain's NewYork Business, Brooklyn had the highest annual job growth rate for any large county in the country at 4% from 2009-2015 with the Brooklyn Waterfront ranking as the 6th largest office market. In addition, The Real Deal web-site (11/2015) reported that the Brooklyn Tech Triangle, which encompasses the Downtown Brooklyn, DUMBO and The Brooklyn Navy Yard areas, had 1,351 innovation companies geared to creative-tech jobs. This emerging creative industry base has begun to form on the edges of Downtown. In nearby DUMBO, visual arts, architecture and graphic design fields have flourished, as they have in Williamsburg. Fort Greene offers a dynamic performing arts scene; the Navy Yard area has a diverse group of designer/craftsmen that have put Brooklyn on the international map as a design destination for creative types to live/work/play.

In recent years, Brooklyn has benefited from the rapid growth of a high-tech entertainment economy in DUMBO, and strong growth in support services such as accounting, personal supply agencies and computer service firms. Jobs in the borough have traditionally been concentrated in manufacturing, but since 1975, Brooklyn has shifted from a manufacturing-based to a service-based economy. Construction and services are the fastest growing sectors. Most employers are small businesses. The latest reported unemployment rate in Brooklyn was about 4%. According to the city-data.com, the 2016 median household income for Brooklyn was $55,150, an almost 72% increase from 2000.

Brooklyn Overview

The borough is well-served by public transit with 18 subway lines providing service into Manhattan, and 3 commuter rail stations: East New York, Nostrand Avenue, and Atlantic Terminal, a major inter-modal transit hub with 10 connecting lines and the terminus of the Atlantic Branch of the Long Island Railroad. The highway network includes the Brooklyn-Queens, Gowanus (part of the BQE) and Prospect Expressways, the Belt Parkway, and Jackie Robinson Expressway.

Brooklyn is connected to Manhattan by the Brooklyn, Manhattan and Williamsburg Bridges, the Brooklyn-Battery Tunnel, and several subway tunnels. The Verrazzano-Narrows Bridge links Brooklyn with Staten Island. Though much of its border is on land, Brooklyn shares several water crossings with Queens, including the *new* Kosciuszko Bridge and the Bryne Memorial Bridge, which carry traffic over Newtown Creek, and the Marine Parkway Bridge connecting Brooklyn to the Rockaway peninsula.

Industrial areas include most of the stretch along Brooklyn's northern and western waterfront, and the Brooklyn Terminal Market. Some of the more active complexes are the Brooklyn Navy Yard, Flatlands Industrial Park, Industry City within Bush Terminal, and the Army Terminal at 58th Street/near Gowanus Expressway. Hospitals include NYU Langone, New York Presbyterian-Brooklyn Methodist, Kings County, Brookdale, Brooklyn, Coney Island, Maimonides and SUNY Downstate Medical Centers, and managed care and private medical centers.

As for the office market, while there have been some ground-up new developments planned for Brooklyn, the predominant trend has been the conversion of existing former industrial buildings to office use mostly in the DUMBO, Gowanus, Sunset Park, Industry City, Bush Terminal, East WIlliamsburg and Bushwick neighborhoods, particularly those sites that are still industrially-zoned. *One of these large industrial conversions has taken place at 14 53rd Street, the building adjacent to the subject property.* Madison Realty bought the 7-story, 500k S/F building, formerly known as the Brooklyn Whale Building, for $82.5 million in 2015 when investors were actively acquiring industrial properties to reposition them to attract office and creative tenants. In 2016, Urban Soccer signed a lease for 63,000 S/F at the site for its 1st indoor facility in the US.

Brooklyn Overview

Recreation areas include Prospect Park, the recently opened Brooklyn Bridge and Sunset Park Waterfront Parks, Marine Park, Botanic Gardens, Dyker Heights Public Golf Course, Sheepshead Bay, Coney Island, Brighton Beach, Manhattan Beach, sports and community centers, including YMCA, YWCA and YM/WHA facilities, skating rinks, and neighborhood parks and playgrounds with ball fields; basketball, handball and tennis courts, picnic areas and (some) pools. There is also the Aviator Sports and Events Center at Floyd Bennett Field. It has refurbished 4 historic aircraft hangars and surrounding grounds in partnership with the National Park Service along with the 175,000 S/F indoor sports, entertainment and recreation complex, adjoining outdoor turf fields and 35 acres of land space for outdoor events.

Educational facilities include the expanded campuses of Brooklyn, Medgar Evers and Kingsborough, Brooklyn Law School, Long Island University, Metro Tech's Polytechnic University and neighboring CUNY's College of Technology (City Tech), smaller liberal arts colleges such as Saint Francis in Brooklyn Heights, Saint Joseph's in Clinton Hill, and Boricua in Willamsburg. NYU recently opened its Center for Urban Science and Progress School ("CUSP") at 370 Jay Street which is 530,000 S/F building formerly owned by the MTA.

Brooklyn's retail market has seen the expansion of "big box" stores throughout the borough that have included Costco, BJ's Warehouse, Lowes, Target, IKEA and Home Depot. They've been joined by large-scale Fairway, Whole Foods and the recently opened Wegmans who anchors the $140 million redevelopment of Admirals Row in the Brooklyn Navy Yard.

One of the largest suburban-type retail developments is Gateway Center in Spring Creek. Completed in 2002 by the Related Companies, this 638k S/F shopping center, accessible from the Belt Parkway, is fully leased with tenants including Target, Home Depot, Best Buy, Marshalls, Bed Bath & Beyond, BJ's Wholesale, etc. The Gateway Center Mall Phase II, completed in stages from 2014, has retail tenants such as Pier 1 Imports, Raymour & Flanigan, Burlington Coat Factory, GNC, Applebee's, ShopRite and Aldi supermarkets along with JC Penny's 1st store in Brooklyn (124,000± S/F) S/F.

Brooklyn Overview

Pacific Park Brooklyn (f/k/a Atlantic Yards), a 22-acre mixed-use development in Downtown Brooklyn, is the largest of the new projects in the borough. It includes the Barclay's Center which is home to the Brooklyn Nets basketball team and also hosts popular concerts and other special events. The general project is to also include 16 high-rise buildings with 6,430 new apartments at market and affordable rents. A number of the buildings are now in various phases of construction, with SHoP's prefabricated rental tower at 461 Dean Street already occupied and 535 Carlton, a fully-affordable development recently opened. The market-rate apartment condos in recently built 550 Vanderbilt have been sold or are currently on the market. It was recently reported in a 2/26/19 article by the Commercial Observer that Greenland Forest City is preparing to break ground on the complex's 5th building at 30 Sixth Avenue (Parcel 4) which will be a 500' high apartment building with a planned mix of both condos and rentals. TF Cornerstone just purchased 2 parcels at 595 and 625 Dean Street from Greenland Forest City Partners for $143.1 million. They intend to build 2 towers containing a total of 800 apartments, retail space, parking and 72,000 S/F of open space with construction to begin next year. In addition, the Brodsky Organization recently purchased another Pacific Park parcel at 664 Pacific Street where they plan to build a 300-unit apartment building (30% geared for affordable housing) and a new middle school. Construction is underway for both sites.

Major shopping is at Atlantic Center, Fulton and Albee Square Malls, Flatbush and Myrtle Avenues and, to a lesser extent, DeKalb Avenue. Atlantic Center stores are Pathmark, Marshall's, Old Navy, Men's Warehouse, Best Buy, Burlington Coat Factory, Chuck E. Cheese, Designer Shoe Warehouse, Target and the LIRR Atlantic Avenue terminal, which also provides IRT Lexington & 7th Avenue and IND trains.

Another large scale project near Pacific Park Brooklyn and Atlantic Center is "City Point", a 1.8 million S/F development on the site of the former Albee Square Mall, for which office, residential and retail uses have been completed or under construction.. Designed by award winning architects Cook–Fox & Greenberg Farrow, the project will be tenanted by first-class retailers, further enhancing the desirability of Downtown Brooklyn as a leading retail destination. The residential portions will be a mix of market and affordable apartments. Construction is underway on the 1st and 2nd phases of this project and Tower One has been completed. Phase 1 comprises a 3-story, 50,000 S/F retail building on Fulton Mall, Brooklyn's busiest shopping place. The recently opened Century 21's Department Store is the anchor retail tenant in the overall project and occupies 145,000 S/F of multi-level space. Included in the tenant roster are:

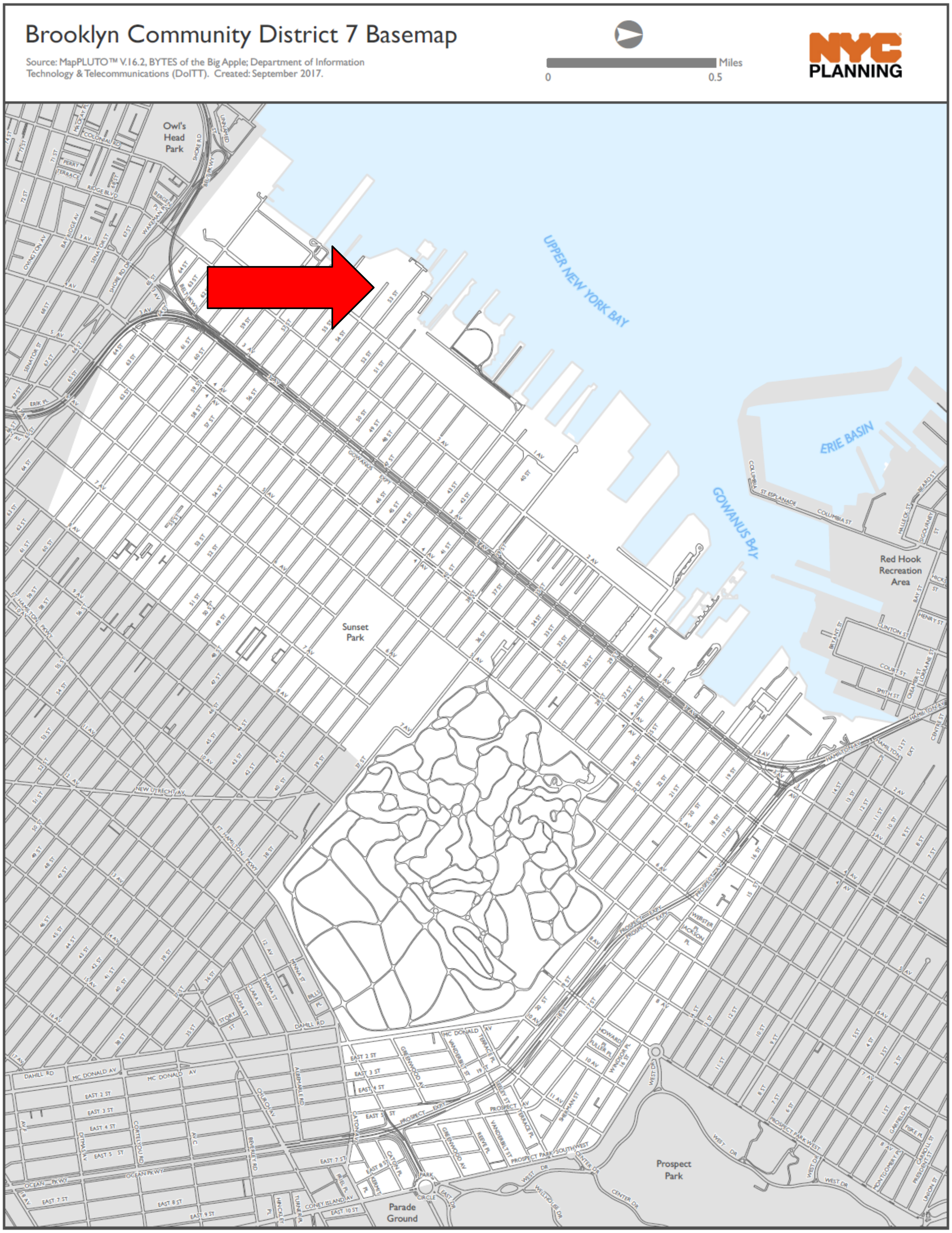
- 7-screen movie theater by Texas-based Alamo Drafthouse;
- CityTarget recently opened and occupies the entire 2nd floor or 125,000 S/F;
- A 13,700 S/F Trader Joe's and Manhattan-based Katz's Delicatessen (its 1st expansion in its 127-year history) have opened in DeKalb Market Hall, a 26,000 S/F concourse which also has small stalls where local vendors sell prepared foods like barbecue, doughnuts and South American arepas. Dining is at long communal tables.

As for culture, Brooklyn hosts the world-renowned Brooklyn Academy of Music, Brooklyn Philharmonic, Prospect Park, Coney Island amusements, and 2nd largest public art collection in the nation in the Brooklyn Museum.

Along with the other NYC Boroughs, particularly Manhattan and Queens, the Brooklyn residential market has experienced unprecedented, substantial growth with Forbes magazine indicating that it was expected to gain 6,073 apartments in 2016 adding to the 979 apartments already introduced to the market in 2015 It is anticipated that 20,000 units will be available in the NYC market in 2019, down from a peak of 25,000 in 2017 which is still higher than 2012 to 2015 when an average of 14,000 units were finished each year and demand was outpacing supply. The most openings will be in Brooklyn, which should see 13,272 new apartments across 421 buildings followed by Manhattan is next with 6,342 units in 79 buildings, Queens with 6,302 units in 154 buildings, the Bronx with 2,471 units and Staten Island with 126 units.

In summary, the forces affecting the Brooklyn real estate market appear to continue to be attractive for investors and users. Its available job market, good housing and easy access to employment, cultural and entertainment centers are significant factors that should continue to enhance the economic growth of this borough.

District & Neighborhood Data



Brooklyn Community District 7

See BK 7's profile online — NYC PLANNING

Neighborhoods[1]: Sunset Park, Windsor Terrace

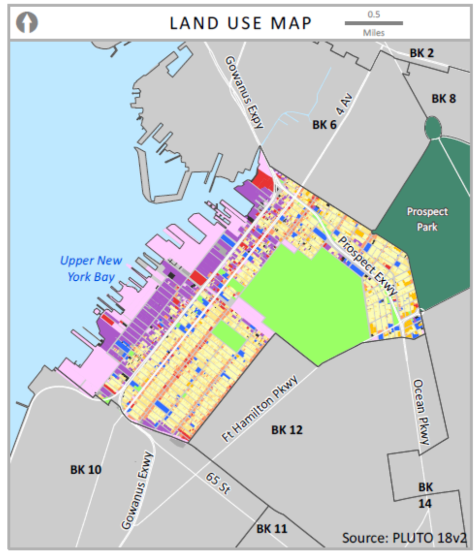
POPULATION & DENSITY

2000[2]	2010[3]	2000-2010
120,063	126,230	+5%

2012-2016 Estimate[4]	151,258
Square Miles	3.7
Population Density	34,116/sq mi

Land Use Category	# Lots	% Lot Area
1 & 2 Family Bldgs	6,415	16%
Multifamily Walk-up	3,710	11%
Multifamily Elevator	76	1%
Mixed Use	1,545	5%
Commercial	236	3%
Industrial	625	13%
Transportation/Utility	77	16%
Public/Institutional	166	4%
Open Space	36	28%
Parking	228	1%
Vacant	194	1%
Other	49	0%

LAND USE MAP



Click here for a more detailed land use map of Brooklyn CD 7

COMMUNITY BOARD PERSPECTIVES

Top 3 pressing issues identified by Brooklyn Community Board 7 in 2018:

1. Affordable housing
2. Schools
3. Other (see Statement of Community District Needs)

To learn more, please read Brooklyn CD 7's Statements of Community District Needs and Community Board Budget Requests for Fiscal Year 2020.

Website: www1.nyc.gov/site/brooklyncb7/index.page

A Snapshot of Key Community Indicators

COMMUNITY ASSETS[5]

Public Schools	42
Public Libraries	2
Hospitals and Clinics	21
Parks	16

Click to visit the NYC Facilities Explorer

RENT BURDEN[4, 6]

Brooklyn CD 7: **52%** of households spend 35% or more of their income on rent

Brooklyn 46%

NYC 45%

ACCESS TO PARKS[7]

Brooklyn CD 7: **87%** of residents live within walking distance of a park or open space

Citywide Target 85%

MEAN COMMUTE TO WORK[4, 8]

Brooklyn CD 7: **43** minutes

Brooklyn 42 minutes

NYC 40 minutes

LIMITED ENGLISH PROFICIENCY[4]

Brooklyn CD 7: **48%** of residents 5 years or older have limited English proficiency

Brooklyn 23%

NYC 23%

CRIME RATE[9]

Brooklyn CD 7: **8.7** major felonies were reported per 1,000 residents in 2016

Brooklyn 11.3

NYC 11.8

EDUCATIONAL ATTAINMENT[4, 10]

Brooklyn CD 7: **26%** of residents 25 years or older have earned a bachelor's degree or higher

Brooklyn 34%

NYC 36%

UNEMPLOYMENT[4, 10]

Brooklyn CD 7: **5.1%** of the civilian labor force was unemployed on average from 2012 to 2016

Brooklyn 5.7%

NYC 5.5%

NYCgov POVERTY MEASURE[11]

Brooklyn CD 7: **29%** of residents have incomes below the NYCgov poverty threshold. See the federal poverty rate here.

Brooklyn 22%

NYC 20%

[1]Neighborhoods may be in multiple districts. Names and boundaries are not officially designated. [2]2000 US Census; [3]2010 US Census; [4]American Community Survey 2012-2016 5-Year Estimates, calculated for Public Use Microdata Areas (PUMAs). PUMAs are geographic approximations of community districts. [5]NYC Dept of City Planning Facilities Database (2017); [6] Differences of less than 3 percentage points are not statistically meaningful. [7]NYC Dept of Parks and Recreation (DPR) (2016). DPR considers walking distance to be 1/4 mile for parks less than 6 acres, and 1/2 mile for larger parks and pools. [8]Differences of less than 2 minutes are not statistically meaningful. [9]NYPD CompStat, Historic Complaint Data (2017); [10]Differences of less than 2 percentage points are not statistically meaningful. [11]2011-2015 NYCgov Poverty Measure by PUMA. This metric from the Mayor's Office for Economic Opportunity accounts for NYC's high cost of housing, as well as other costs of living and anti-poverty benefits.

District & Neighborhood Data

The subject site is located in the Sunset Park section of Brooklyn Community District 7, which also includes the Windsor Terrace, Bush Terminal and Greenwood Heights neighborhoods. The district covers 3.7 square miles and is bounded on the north by 15th Street and Prospect Park Southwest, on the south by the Penn Central-Bay Ridge Railroad freight line, on the east by 8th Avenue, Greenwood Cemetery & Caton Avenue, and on the west by Upper & Gowanus Bays.

The district contains an established lower- to middle-income residential community, as well as large industrial sectors such as Sunset Industrial Park, Industry City/Bush Terminal and the Brooklyn Army Terminal which are located in the westerly section of the district from the north to south borders. Vehicular movement is good. The Prospect and Gowanus Expressways and 4th Avenue help move thru-traffic and provide the most rapid routes to Manhattan and the southern shore of Brooklyn.

As per the land chart on the prior page, the largest percentage of land uses are residential and open spaces at 28%, followed by industrial/commercial and transportation uses at 16%.

Minority groups make up the majority of the population in Sunset Park with nearly half of the area’s occupants being Latino, while roughly 40% of the people come from Asia. The neighborhood is divided loosely into two sections: 5th Avenue to the west includes bakeries, taquerias and money transfer businesses catering predominantly to a Dominican, Puerto Rican and Mexican population while along 8th Avenue to the east is considered Brooklyn’s first Chinatown with stores occupied by supermarkets, numerous restaurant and banks.

Residential development in the neighborhood includes what is known as the "brownstone belt" which consists of homes with brownstone, sandstone, limestone, iron, and ornamental stone-brick facades built mostly between 1885 and 1910. These structures are predominantly 2-story and English basement bayed row houses built as 2-families and at the time of construction considered inexpensive imitations of the stately 4- and 5-story townhouses found in the more established and desirable brownstone neighborhoods of Brooklyn Heights, Carroll Gardens, Fort Greene and Park Slope. Although many of these row houses no longer have their original internal architectural details, they continue to encompass a substantial swath of the residential stock between 4^{th} and 6^{th} Avenue south of 40th Street with additional brownstone rows found as far north as 420-424 36th Street and as far east as 662 56th Street. Other residential development includes a mix of wood frame and frame-brick houses dating from the earliest development in the area as well as numerous 3-story 3-family homes similar in design to the neighborhood's row houses. There are also some small 4- or 5-story apartments with tenement-type multiple dwellings. Along Fourth and Fifth Avenue, there are several buildings with commercial space on their ground floors and residential units above. While there are signs of gentrification taking place in the neighborhood, four residential historic districts were established in June 2019 to curb large assemblages for redevelopment in order to maintain the existing architectural character of the area.

Industrial development in the district, which is predominantly located between 3^{rd} Avenue and Upper New York Bay running from the north to south of district, includes low-rise commercial buildings (industrial, warehouse, garages, lofts and factories) and multi-story factory, warehouse and loft buildings having such uses as light manufacturing, creative work spaces and retail. *The subject property is located between Industry City/Bush Terminal and the Brooklyn Army Terminal.*

Industry City is a privately-owned, historic intermodal shipping, warehousing, and manufacturing complex situated on over 30 acres along the Upper New York Bay waterfront between 32nd and 41^{st} Street containing 6 million S/F of space spread over 16 circa early 1900’s buildings. The southern portion, known as "Bush Terminal", is located between 40th and 51st Streets and is operated by the New York City Economic Development Corporation (NYCEDC) as a garment manufacturing complex.

In 2013, the new ownership of Industry City, Belvedere Capital, Angelo, Gordon & Co. and Jamestown Properties, began to redevelop the property to create space to meet current demands of the rapidly emerging innovation economy from companies involved in physical, digital and engineered product design and development, including initial research, engineering, design, manufacturing, and production. Ownership has reported that over the past 2 years more than $2 million S/F of space was leased which resulted in creating over 2,000 jobs. Spaces currently range from 500 to over 250,000 S/F to accommodate creative offices, and traditional and advanced manufacturing processes. In addition, several retail tenants occupy the lower portions of the buildings and upper floor spaces have been leased space to both the NBA's Brooklyn Nets basketball team and Hospital for Special Surgery Training Center (HSS Center) for their training facilities. In addition, there is a 7,700 S/F space known as the Innovation Lab which was established with the intent to supply the local community with the training and education needed to earn well-paying jobs and the potential to turn those jobs into accomplished careers. It is meant to be a catalyst for employment, providing pre-screening and job placement services, technology and vocational training programs. Further activity in the complex includes the 20,000 S/F Japanese-themed food court known as Japan Village which opened at 934 Third Avenue. This space provides access into Japan’s food culture with several stalls that sell everything from soba and udon noodles made daily, to Japanese street food like takoyaki. A liquor store has Japanese sake and whiskey on its shelves, and the izakaya restaurant and bar dishes out options like grilled chicken skewers and sashimi. It was reported by the property owners that this tenant is already planning an expansion for an additional 20,000 S/F on the 2nd floor as a retail center where shoppers can get artisanal products like pottery, and cosmetics.

Recently, Industry City’s ownership submitted a controversial proposal to rezone their campus to allow them to create up to 900,000 S/F of retail space, build 2 hotels totaling 275,000 S/F, use 600,000 S/F for academic classrooms and develop up to 1.3 million S/F of additional commercial space. The city’s 7-month review process has begun despite strong pushback from Sunset Park advocates and the area’s City Council member who have concerns about its impact on the existing community and the transformation of the area.

District & Neighborhood Data

Directly south of Industry City, between First Avenue, 40th Street, Second Avenue, and 51st Street, is Bush Terminal which covers 36 acres of land and consists of 11 former warehouses and 1.4 million S/F of renovated floor space operated by the NYCEDC. A new multimillion-dollar project was announced in early 2019 to revitalize the campus and turn it into an area for people who work in the garment industry. The $136 million Made in NYC Campus is to be built on 9 acres with the intent of creating a garment production hub designed specifically for clothing industry businesses. According to Krystin Hence, VP of construction for NYCEDC, the major goal of this plan is to create space allowing these types of companies to grow as well as to create new jobs for local people. The hub will offer spaces ranging from 2,000 to 20,000 S/F and is expected to bring 1,500 jobs.

Within the local vicinity is also the Liberty View Industrial Plaza, an 8-story building at 850 3rd Avenue that is nearing the completion of its $100 million renovation. While it already includes numerous retail tenants including Bed Bath & Beyond, Saks off Fifth and Buy Buy Baby, they are seeking industrial and tech tenants to fill 1.3 million S/F of space.

In regard to the BKLYN Army Terminal, the City (via Economic Development Corp.) took possession of the property in 1981 and has since invested approximately $168 million renovating and transforming the 3.1 million leaseable S/F into a hub for modern industrial businesses. As a result, the number of businesses has increased substantially over the years and approximately 70% of them are industrial businesses supporting over 2,800 jobs.

Other activity along the waterfront included the City's landmark Solid Waste Management Plan under the Bloomberg administration that brought the Sims Municipal Recycling Facility to the South Brooklyn Marine Terminal. It was created to establish a cost-effective, equitable, and environmentally sound system for managing the City's waste for the next 20 years and be the principal processing facility for all of the City's metal, glass, and plastic recyclables.

Vehicular traffic through the district is generally good. Heavy trucking generated by Bush Terminal is mainly confined to the Gowanus & Prospect Expressways which help move thru-traffic, and provide rapid routes to Manhattan and Brooklyn's south shore. Ongoing expressway accidents and repairs cause traffic congestion on some local streets. 4th Avenue, a four-lane, north-south, heavily traveled, vehicular artery from Bay Ridge and the Verrazano Bridge to downtown Brooklyn's civic and employment center, is the district's main traffic route; service runs full length. *The closest train station to the subject property is at 4th Avenue and 53rd Street for the "R" train.* NYC Ferry opened a stop at the Brooklyn Army Terminal at 58th Street which takes passengers from Sunset Park to Wall Street in a roughly 30-minute trip with stops at Red Hook, Atlantic Avenue and Dumbo along the way.

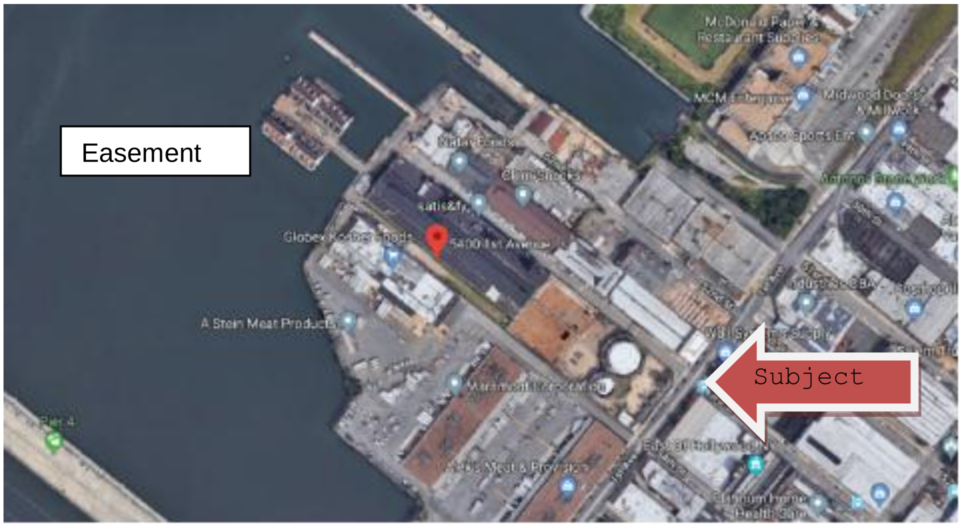
Local conveniences include a playground with sitting areas and a community swimming pool on 5th Avenue between 41st & 44th Streets (Sunset Park); NYU Langone Hospital, the only hospital in the district is at 55th Street & 2nd Avenue; a fire house at 4th Avenue & 52nd Street, and the 72nd Precinct police station at 4th Avenue & 29th Street. 5th & 8th Avenues are commercially active from 39th Street south to 60th Street.

Bush Terminal Piers Park is a green space between 43rd and 50th Streets that contains a pedestrian and bike path as well as baseball and soccer fields. It is part of the Brooklyn Waterfront Greenway, a 14-mile off-street path as part of the plan to connect neighborhoods along Brooklyn's waterfront, running through the Industry City complex to the 23-acre Owls Head Park in Bay Ridge.

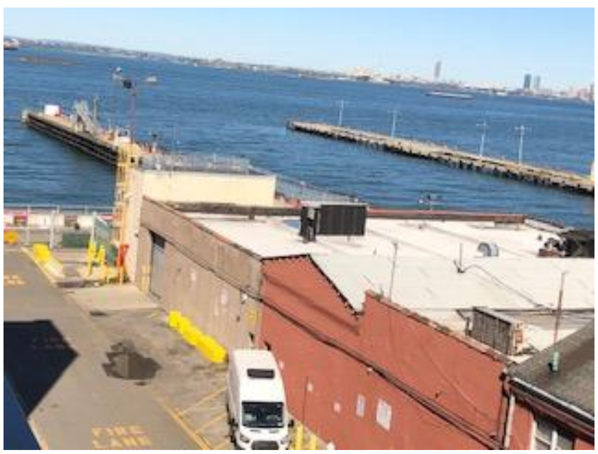
In summary, the site is well-located for all of its legal uses. It has good access via mass transit and highways, as well as convenient urban amenities nearby.

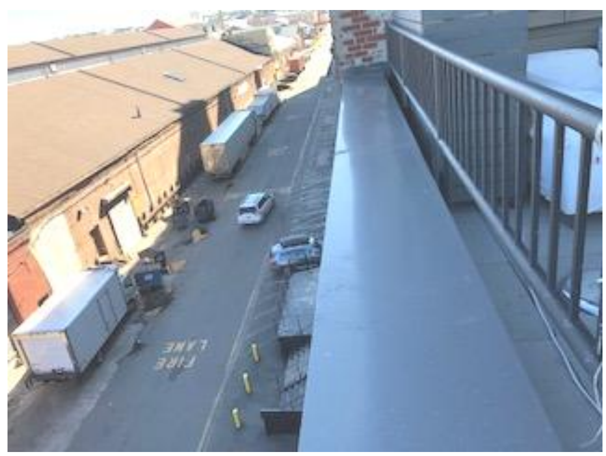
Views of Subject Site

Aerial View

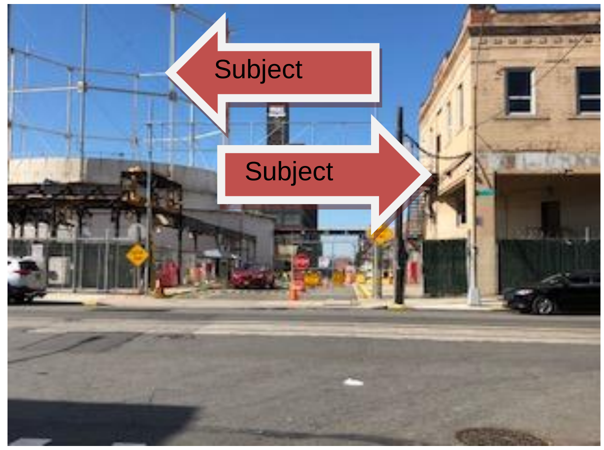


Photos of Various Existing Improvements in the Periphery

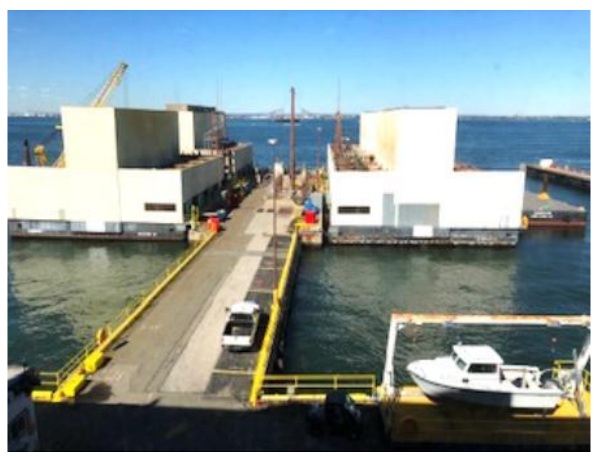




Photos of The Subject + Various Improvements in the Periphery



Adjacent Property Development



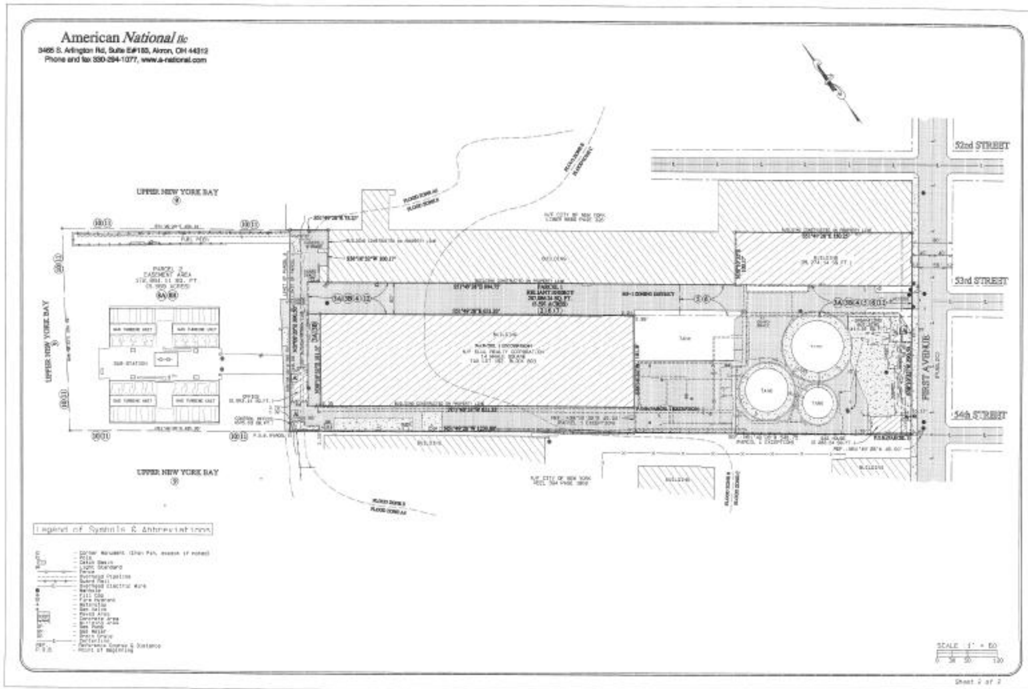
Cited Easement Area

Street Views

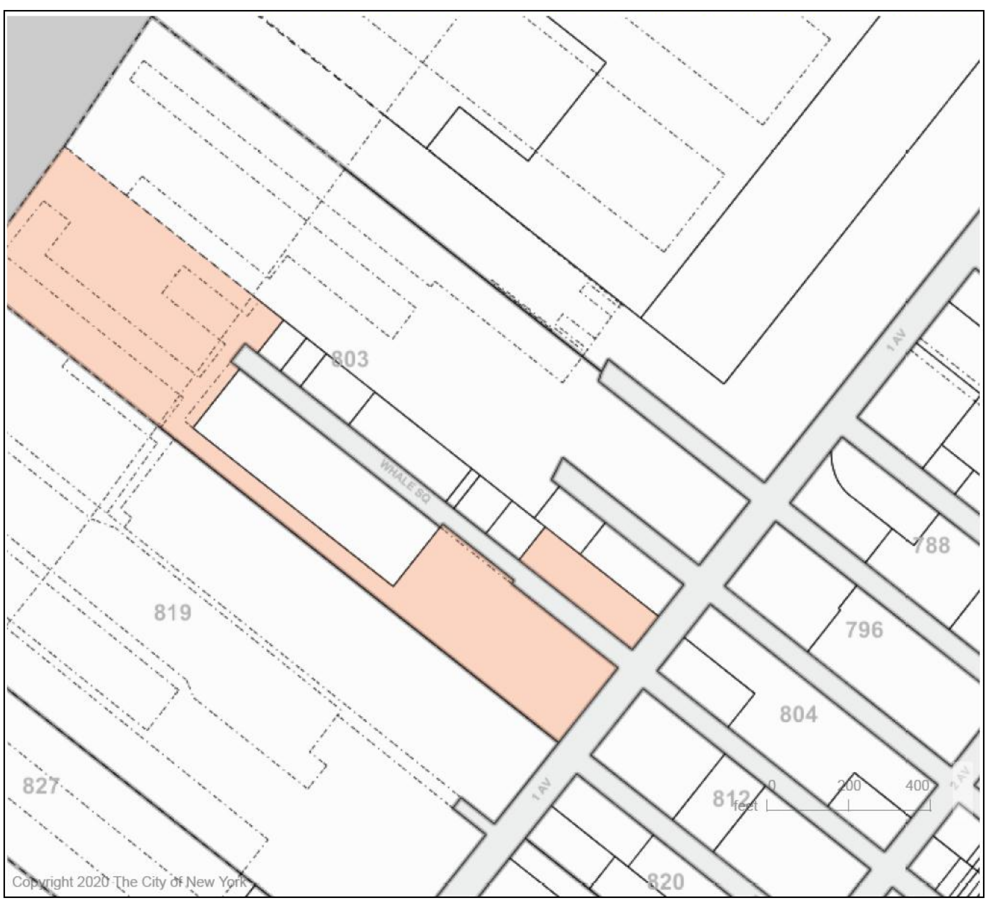





Survey



Tax Map



Site Data & Analysis

NYC Tax Map ID: Block 803 Lots 10 + 150, County of Kings, Borough of Brooklyn. This 6.591 acre, irregular shaped site has approximately 390’ frontage on the west side of 1st Avenue comprising the entire street front between 53rd and 54th Streets while it then runs westerly 1,339’± at the southerly line of the site to the US Pierhead adjacent to the cited easement and 350’ on the northerly line of the site.

Property Shark records indicate that the site had previous toxic conditions; however, the client informed the appraiser should assume that it is free of any adverse environmental conditions for redevelopment.

As indicated earlier, the subject is adjacent to the 7-story, 500k S/F building, formerly known as the Brooklyn Whale Building with development in the immediate periphery of the subject typically being 1-story with some multi-story industrial structures.

Paved sidewalks/streets, concrete curbs. Fire hydrants and light standards on both sides of the streets. Gas service, electric cables, telephone lines and New York City water mains and combination storm/sanitary sewers are connected from street main supply grids with ample expansion capacity to serve the area's current needs and potential growth. The City provides police, fire, sanitation, and street maintenance services. The site is within a FEMA designated flood zone.

Surrounding streets are paved; sidewalks are concrete with steel nosings on curbs; fire hydrants and light standards on both sides of the streets. Typically restricted and alternate side of the street parking with several no parking areas on Mondays to Fridays from 8am – 6pm.

Assessed Value and Real Estate Taxes

Tax Map ID: Block 803 Lots 10 + 150

The Department of Finance website classifies Lots 10 and 150 as "UO" or Utility Company Land and Building - Tax Class 4. Lot 10 is identified as "C132-84". Lot 150 is identified as REUC – "C132-85EP" and "C132-85P".

Current Tax Bill – Lot 10

Department of Finance

Statement Details

November 16, 2019
Astoria Gen Co LP
3-70132-1401
Page 2

Billing Summary	Activity Date	Due Date	Amount
Outstanding charges including interest and payments			$0.00
Finance-Utility Property		01/01/2020	$15,107.06
Adopted Tax Rate			$66.08
Total amount due			**$15,173.14**

How We Calculated Your Property Tax For July 1, 2019 Through June 30, 2020

	Overall Tax Rate
Tax class 4 - Commercial Or Industrial	
Original tax rate billed	10.5140%
New Tax rate	10.5370%

Estimated Market Value $772,000

		Taxes
Billable Assessed Value	**$287,370**	
Taxable Value	$287,370 x 10.5370%	
Tax Before Abatements and STAR	$30,280.20	**$30,280.20**
Annual property tax		**$30,280.20**
Original property tax billed in June 2019		**$30,214.12**
Change In Property Tax Bill Based On New Tax Rate		**$66.08**

Assessed Value and Real Estate Taxes

Current Tax Info & Bill – Lot 150

2019 - 2020 Final Assessment

Final Assessment Roll for	2019-2020 | City of New York
Taxable Status Date	January 5, 2019
	EXPLANATION OF ASSESSMENT ROLL
Owner Name	ASTORIA GEN CO LP
Property Address	
Billing Name and Address	ASTORIA GEN. CO. LP. US POWER GENERATING CO TAX DPT 300 ATLANTIC ST. FL. 5 STAMFORD CT 06901-3522
Tax Class	4
Building Class	U0 - UTILITY COMPANY LAND AND BUILDING

Property Owner(s)

ASTORIA GEN CO LP

REUC Information

IDENT	C132-85P
Roll Section	3 - Power and Gas

Physical Property Information

Assessment Information

Description	Land	Total
ESTIMATED MARKET VALUE	5,751,000	17,451,000
MARKET AV	2,587,950	7,852,950
MARKET EX		0
TRANS AV	2,118,150	7,088,810
TRANS EX		0

Taxable/Billable Assessed Value

	Assessed Value
Subject To Adjustments, Your 2019/20 Taxes Will Be Based On	7,088,810

Sub-ident Information

IDENT	Sub-IDENT	
C132-85P	XXX	ON BLOCK 803 LOT 150 SEC 3 VOL 7

Market Value History

Tax Year	Market Value
2019 - 2020	17,451,000
2018 - 2019	19,603,000
2017 - 2018	19,157,000
2016 - 2017	18,461,000
2015 - 2016	18,048,000

Assessed Value and Real Estate Taxes

Billing Summary	Activity Date	Due Date	Amount
Outstanding charges including interest and payments			$0.00
Finance-Utility Property		01/01/2020	$372,658.76
Adopted Tax Rate			$1,630.40
Total amount due			**$374,289.16**

How We Calculated Your Property Tax For July 1, 2019 Through June 30, 2020

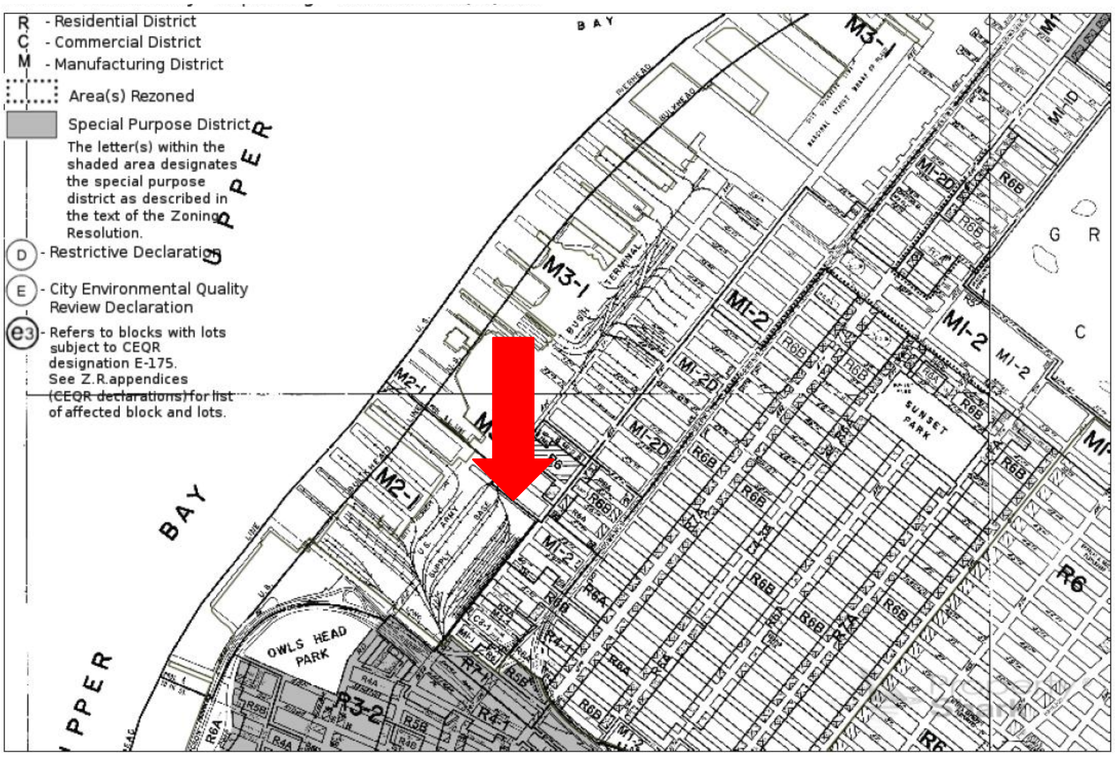
Tax class 4 - Commercial Or Industrial	**Overall Tax Rate**	
Original tax rate billed	10.5140%	
New Tax rate	10.5370%	
Estimated Market Value $17,451,000		
		Taxes
Billable Assessed Value	**$7,088,810**	
Taxable Value	$7,088,810 x 10.5370%	
Tax Before Abatements and STAR	$746,947.92	**$746,947.92**
Annual property tax		**$746,947.92**
Original property tax billed in June 2019		**$745,317.52**
Change In Property Tax Bill Based On New Tax Rate		**$1,630.40**

How We Calculated Your Property Tax For July 1, 2019 Through June 30, 2020

Tax class 4 - Commercial Or Industrial	**Overall Tax Rate**	
Original tax rate billed	10.5140%	
New Tax rate	10.5370%	
Estimated Market Value $42,270,000		
		Taxes
Billable Assessed Value	**$17,716,918**	
Taxable Value	$17,716,918 x 10.5370%	
Tax Before Abatements and STAR	$1,866,831.68	**$1,866,831.68**
Annual property tax		**$1,866,831.68**
Original property tax billed in June 2019		**$1,862,756.80**
Change In Property Tax Bill Based On New Tax Rate		**$4,074.88**

Zoning Map

M3-1 "Manufacturing/industrial" District



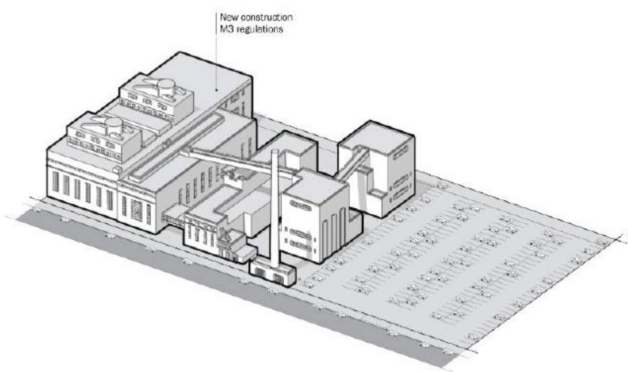
Zoning Data – M3-1 "Industrial/Manufacturing" Zone

Property in an M3-1 District in College Point, Queens

M3 districts are designated for areas with heavy industries that generate noise, traffic or pollutants. Typical uses include power plants, solid waste transfer facilities and recycling plants, and fuel supply depots. Even in M3 districts, uses with potential nuisance effects are required to conform to minimum performance standards.

Like M2 districts, M3 districts are usually located near the waterfront and buffered from residential areas. Large M3 districts are mapped along the Arthur Kill in Staten Island, along the East River shore of the South Bronx, and along the Gowanus Canal in Brooklyn. Smaller M3 districts, such as portions of Astoria, are located along the waterfront in all five boroughs and accommodate public utilities.

The two M3 districts, both with a maximum floor area ratio (FAR) of 2.0 and a maximum base height before setback of 60 feet, differ only in parking requirements. M3-1 districts are subject to the same parking requirements as M1-1, M1-2, M1-3, M2-1 and M2-2 districts; M3-2 districts, found only in Manhattan, are exempt.



M3 Regulations

M3	Heavy Manufacturing District (Low Performance)	
	M3-1	M3-2
Manufacturing FAR	2.0	
Required Accessory Parking PRC-B	1 per 300 sf	None
Permitted Sign Regulations (Surface Area)	6 X street frontage	

Based on the current zoning, which permits a maximum floor area of 2.0 for industrial use, and subject property's 287,100 S/F of land area, it appears that an industrial building having up to 574,200 S/F can be built on the site.

Highest and Best Use

This economic concept, the premise upon which value is based, is defined below;

> “The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and that results in the highest value.”

The four criteria the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity. This analysis usually involves two separate studies: the site as if vacant and the site as it is improved. Since this property is appraised under it highest & best use as vacant land/redevelopment site, only the first study is performed.

Highest and best use of land or a site as though vacant.

> Among all reasonable, alternative uses, the use that yields the highest present land value, after payments are made for labor, capital and coordination. The use of a property based on the assumption that the parcel of land is vacant or can be made vacant by demolishing any improvements.

1) **Possible Use**. This large multiple frontage 6.591 acre site with waterfront access would make most uses physically possible: commercial, residential, industrial, community facility or mixed.

2) **Permissible Use [Legal]:** But, the public restriction of legal use as zoned permits only industrial/manufacturing and commercial uses only.

3) **Uses of Financial Feasibility and Maximum Productivity**. Based on development in the periphery as well as planned developments on similarly sized and zoned sites such as those sales analyzed in this report, a manufacturing/industrial or commercial property would represent the site’s highest and best use.

Comments: The Market for Industrially-Zoned Vacant Land

The following comments relate to the market for industrially-zoned land but focuses particularly on the current activity, both acquisition and redevelopment, taking place for large-scale sites like the subject property.

Following the city's major loss of industrial businesses after globalization in the mid-20th century, the NYC mayoral administrations of Rudolph Giuliani and Michael Bloomberg both believed that too much of the city's land was zoned for industry use and should be rezoned to stimulate residential and commercial development. Bloomberg in particular, subsequently rezoned large swaths of M and C8 land resulting in the city losing about 4,050 acres of M land between 2002 and 2015, reducing the total percentage of M-zoned land from about 21 percent to 14 percent. C8 land was also reduced and by 2016 only one percent of the city was zoned C8.

These various zoning changes have led to the shrinking supply of warehouse space and industrially zoned land available for redevelopment throughout the NY Metropolitan area with many traditional industrial users being squeezed. In addition, many of the existing manufacturing locations have seen conversions of space to alternate uses such as creative office, retail, hotels and storage. It was reported that Brooklyn (subject's location) led all of the boroughs in how much residential space was gained from the loss of industrial space with 2.74 million S/F across 117 lots followed by Manhattan with 1.58 million S/F across 64 lots, followed then by Queens, the Bronx and Staten Island with substantially less gains and losses.

Adam Friedman, Executive Director of the Pratt Center for Community Development, noted that because the Bloomberg administration already targeted much of the city's waterfront real estate for rezoning, Mayor de Blasio's current administration is now rezoning areas deeper within the boroughs. Mr. Friedman believes that at some point the question may not only be about jobs but will there be enough space remaining in the city to meet its industrial needs.

As for current trends, the rise in e-commerce and online shopping by consumers has led to a surge in demand for NYC warehouse and distribution space by companies such as UPS, Federal Express and Amazon (recently opened a $100 mill, 855k S/F fulfillment center in Staten Island and subsequently joined by a 975k S/F facility IKEA in the same complex – Matrix Global Logistics Park) who require fast deliveries to their customers. The e-commerce industry has changed the demand for industrial space and according to the NY Post, with $1 billion online sales, companies need more storage space for their goods which has resulted in rising rents and has attracted $60+ billion of industrial investments by foreign purchasers since 2010.

As per an 3/14/17 interview with James Cramer of the TV Business program known as "Mad Money", Hamid Moghadam, CEO of Prologis, the world's largest warehouse owner and developer, said the e-commerce business requires 3x greater space than any type of retailing. In meeting this demand, his company purchased a 205,409 S/F former ABC Carpet & Home outlet in The Bronx, NY, and subsequently converted it into the 1st multi-story distribution center in the eastern U.S. As e-commerce approaches an estimated 12.4% of retail sales by 2020, Mr. Modhadam said that it is imperative for distribution centers ("DC") to be near where consumers live, especially in cities whose transportation infrastructure did not anticipate exponentially more delivery trucks.

Adding to the challenge in meeting the e-commerce industry's demands is the expensive cost of real estate in the urban areas along with the difficulty in finding the massive acreage these distribution centers require. Furthermore, according to Dov Hertz of DH Holdings, an active local industrial developer, the existing industrial stock doesn't meet the requirements of the e-commerce industry and to be competitive in acquisition, the new trend, for which he is a pioneer, is for developers to build multi-story structures, if zoning permits it, to justify their costs. Another hurdle for these types of properties is that acceptable routes of delivery are diminishing and prompt delivery depends on the proximity of warehouses to the product's destination which is referred to as the "last mile."

Locally, Ware Malcomb, a company specializing in integrated design services, architecture, planning, interior design, branding, civil engineering, and building measurement, in collaboration with developers Mr. Hertz's company and Goldman

Sachs Asset Management, purchased a site in Red Hook (640 Columbia Street – Sale #2 of the sales used in this report) to design a 3-story warehouse on 4 acres of land. This project is just one of several multi-story warehouses in production in the Metropolitan area. Mr. Hertz's company also purchased the almost 18-acre Sunset Industrial Park (Sale #1 in this report) to build a new multi-story, warehouse and distribution hub on that site as well. In addition, Mr. Hertz's company also executed a 99-ground lease for a low-density 2-acre site at 537-555 Columbia Street in Red Hook where he is currently constructing a 1-story and mezzanine, 82,000± S/F warehouse.

Joining the new development in Red Hook is United Parcel Service (UPS) who recently net-leased a large waterfront site for their facilities and subsequently purchased it for over $300 million (Sale # 3 in this report). They had also previously purchased a large adjacent warehouse. Their plan is to demolish the existing structures and build a more modern multi-story distribution center. When asked why they chose Red Hook for this facility and why they were willing to pay considerably more than the prior sales price from just a short time earlier, Axel Carion, UPS's director public affairs responded that a key factor in the decision was the availability of a property like their Red Hook site based on the limited supply of these types sites on the market in NYC that work for a logistics type of network. He also said that access to highways is also very important and being close to the water gives UPS an opportunity to be able to utilize the waterway and avoid a lot road traffic.

Further evidence of this current industrial trend is Thor Equities' decision to construct "last mile warehouses" for e-commerce companies at their 280 Richards Street site in Red Hook rather move forward with the massive 800K S/F office complex it had planned.[4].

Another major industrial developer in the metropolitan area is IPG (Innovo Property Group) who has been investing in NYC since 2015 and is one of the city's most active industrial players focused on last-mile warehouse facilities. Andrew Chung, founder

and CEO, believes, like his colleagues in the same market, that last-mile distribution will

[4] As per a 2/20/19 article on the website Curbed 2/20/19

become increasingly important with the rise in e-commerce and the demand for same- and next-day delivery. IPG is currently developing multi-story distribution centers in both Queens and the Bronx. In 2017, they purchased 2505 Bruckner Boulevard with affiliates of Square Mile Capital Management LLC, to create NYC's largest, last-mile, multi-story urban logistics facility with state-of-the-art features. The building will be 968,000 S/F situated on over 19 acres and is expected to be completed in 2020. IPG also purchased 23-30 Borden Avenue in Long Island City for $75 million (Sale #5 in this report) and they plan to transform it into a multi-story, state-of-the-art warehouse. The site is near the entrance of the Midtown Tunnel and also close to Williamsburg, Brooklyn, so Mr. Chung believes it is well positioned to meet the demand for logistics spaces near highly concentrated population centers.

In summary, rezoning over the years along with some pending rezoning, has led to a substantial reduction in the supply of sizeable industrially zoned sites for redevelopment, including many of the sites that have waterfront access like the subject property. This has made it very challenging for both developers and users to create the most desirable and efficient product to meet the demand coming from the growing e-commerce industry as well as other heavy industries requiring the M3 zoning. It has also made it very difficult for industries relying on water access such as cargo shipments, waste transfer, stations, and concrete companies to identify suitable sites. Therefore, it would be reasonable to assume that if the subject site were available for sale as of the effective date of this report, it would likely be a very attractive candidate for acquisition and redevelopment from these types of owner-users or developers.

Valuation Process

The estimation of a real property's market value involves a systematic process: the problem is defined, the work necessary to solve the problem is planned, and the data required is acquired, classified, analyzed, and interpreted into an estimate of value. In this process, three basic approaches, if applicable, are used by the appraiser: The Cost, Sales Comparison and Income Capitalization Approaches. Full justification must be presented when any of the approaches are not applicable in the appraisal process.

Cost Approach: The appraiser estimates the replacement or reproduction costs of improvements, deducts estimated depreciation (physical, functional, external), and adds the estimated Market Value of the land to derive a value indication. This approach is based on the premise that an informed purchaser would pay no more for a property than the cost of constructing an improvement of similar utility and condition. It is not applicable to the subject site because the special assignment condition assumes that The Property is unimproved vacant land.

Income Capitalization Approach: A process whereby anticipated flow of future benefits (actual dollar income or amenities) is discounted to present worth through the capitalization process. Of primary concern are future benefits from net income. The steps include projecting potential gross income (as 100% occupied), deducting a vacancy/collection rate and estimated expenses (from historical or market experience) to determine a net income stream, which is capitalized into value by using cap rates extracted from competitive properties in the market or other applicable techniques. Our investigation disclosed that property of this type (unimproved vacant land) is most often purchased for redevelopment and not their current potential income. Therefore, the Income Capitalization Approach is deemed inapplicable in this report.

Sales Comparison Approach: Involves comparison of similar properties that have recently sold or are currently offered for sale in the vicinity of The Property. The notable differences in the comparables are adjusted to indicate a value range for the property being appraised. This value range, as indicated by the adjusted comparables, is then correlated into a final market value estimate for the subject. ***After weighing the significance, defensibility and applicability of each of the three (3) approaches, it is the appraiser's opinion that the Sales Comparison Approach is the most applicable to value The Property under the special assignment assumption***.

Sales Comparison Approach

This approach produces a value estimate for real estate by comparing recent sales or current listings of similar properties in the local area or in competitive areas. Inherent is the principle of substitution, which holds that "when a property is replaceable in the market, its value tends to be set by the cost of acquiring an equally desirable substitute property, assuming no costly delay is encountered in the substitution."

By analyzing sales that qualify as arms-length transactions between willing, knowledgeable buyers and sellers with reasonable market exposure, we can identify price trends from which value parameters may be extracted. Physical, locational and economic characteristics are important criteria in evaluating sales in relation to the subject. Basic steps involved in application of this approach are:

1) Researching recent, relevant property sales and current offerings throughout the competitive area;
2) A selection process to focus on properties considered most similar to the subject, and then analyzing the selected comparable properties giving consideration to the time of sale and any change in economic conditions which may have occurred as of the date of value. Other relevant factors (physical, functional, economic, locational, etc.) are also considered;
3) Reducing sales prices to common units of comparison: price per square foot of land, buildable area or building area; overall price per square foot (land & building); price per unit, etc.
4) Adjusting the units of comparison for differences between the comparables and the subject: + = Subject Superior. - = Subject Inferior. Elements of comparison are characteristics or attributes of properties and transactions that cause prices of real estate to vary: property rights conveyed, financing terms, conditions of sale, market conditions, locational, physical, and others such as economic, use, and non-realty components of value.
5) Interpreting the adjusted sales data; and drawing a valid conclusion.

Sales Comparison Approach

To achieve the highest degree of comparability, the most recent and most comparable sales with regard to location, zoning, size and highest and best use, on a price per maximum buildable square foot basis for industrial uses (aka “buildable S/F”) were used in the report. Since there were not a sufficient number of recent sales in the immediate area of the subject, the appraiser expanded the search to include competing +/or like areas. All of the sales were investigated and verified to determine arm's length status.

As part of the sales investigation, the appraiser came across several recent sales of similarly-zoned, sizeable manufacturing/industrial sites in the nearby Gowanus area as well as along the Williamsburg, Greenpoint, Queens and Bronx waterfronts. However, these sales were likely purchased in anticipation of the area’s rezoning (there is a current proposal to rezone the general Gowanus area from industrial to mixed-use, particularly large-scale residential projects with commercial and public area components). In 2018, nine development sites in the Gowanus area were sold for an average price of $337 per buildable S/F, according to data from TerraCRG. However, under the rezoning guidelines released by the city in January 2019, the buildable area of many these sites could increase substantially reducing the price per buildable S/F. In addition, the neighborhood is sandwiched between very desirable brownstone neighborhoods in Brooklyn. Therefore, they were not considered comparables and not used in this report since they likely represent different proposed highest and best uses than the subject property.

The sales units are adjusted for significant differences influencing price such as follows:

<u>Financing</u>: No adjustments made since none of the sales involved atypical financing.

<u>Time:</u> A time adjustment was made to Sale #4 to reflect the apparent increase in value and demand for these types of sites from the sale date to the effective appraisal date.

Sales Comparison Approach

Motivation: This factor reflects that owner-users are typically willing to pay higher prices than investors, whose primarily focus is on the property's income potential. Although there is the possibility that an owner-user can purchase the subject property, the majority of the sales researched (including those not included in the report) typically involved investor purchases. Therefore, Sales #3 and #4 were adjusted downward.

Location: Considers market demand as well as proximity to main expressways for truck access in comparison to the subject. Sales #1, #4 and #5 were adjusted downward.

Waterfront Frontage/Access: Reflects the limited availability of these types of properties for industrial uses and takes into consideration the premium purchasers might likely pay for waterfront access/riparian rights for multiple uses such as cargo shipments and concrete related businesses. Sales #1 and #3 were adjusted downward while Sales #2, #4 and #5 were adjusted upward.

Size: Larger sites typically sell for lower prices per buildable S/F than smaller sites and vice versa. Adjustments were made to Sales #1, #3 and #5.

Lot Configuration: This factor typically impacts the site's utility for redevelopment. All of the sales were adjusted downward to reflect their superior utility as compared to the subject property.

Adjustments to the sales for the demolition of any existing structures were not considered since the subject site is assumed to be unimproved land and any demolition costs typically would be incorporated into the proposed redevelopment of the sites.

Sales Comparison Approach

Discussion of Sales

Sale #1: 64-88 20th Street aka 40-51 21st Street, Sunset Park/Greenwood Heights
A 17.88 Acre (778,915± S/F), M3-1 zoned site sold for $254.8 million or $164 per buildable S/F via deed dated 1/10/19. Adjusted downward for superior location, waterfront frontage/access and lot configuration/utility; adjusted upward for larger size. Net adjusted to **$147 per buildable S/F**.

Sale #2: 640 Columbia Street, Red Hook
A 4.03 Acre (175,395± S/F), M3-1 zoned site sold for $47.5 million or **$135 per buildable S/F** via deed dated 2/14/18. Adjusted upward for inferior waterfront frontage/access; adjusted downward for superior lot configuration/utility. Adjustments off-set each other.

Sale #3: 44-62 Ferris Street (Coffey, Wolcott, Dikeman, Sullivan Street), Red Hook
A 12.0± Acre (572,700± S/F), M2-1 zoned site sold for $303 million or $262 per buildable S/F via deed dated 12/19/18. Adjusted downward for motivation (owner-use), superior waterfront frontage/access and lot configuration/utility; adjusted upward for larger size.
Net adjusted to **$183 per buildable S/F**.

Sale #4: 59-02 Borden Avenue, Maspeth
A 7.23 Acre (315,080± S/F), M1-1 zoned site sold for $63 million or $200 per buildable S/F via deed dated 8/22/17. Adjusted upward for time (market conditions) to $210 per buildable S/F. Adjusted downward for motivation (owner-use), superior location and lot configuration/utility; adjusted upward for inferior waterfront frontage/access.
Net adjusted to **$147 per buildable S/F**.

Sale #5: 23-30 Borden Avenue, Long Island City
A 4.67 Acre (203,235 S/F), M3-2 zoned site sold for $75 million or $184 per buildable S/F via deed dated 1/24/19. Adjusted downward for superior location and lot configuration/utility; adjusted upward for inferior waterfront frontage/access. Net adjusted to **$138 per buildable S/F**.

Adjusted Range: $135 - $183 Per Buildable S/F

Mean $150 Median $147

Subject: After giving consideration to the sales analyzed after adjustments, it is the appraiser's opinion that a reasonable estimate for the subject property is $145.00 per buildable S/F.

Then: 574,200± S/F @ $145 Per Buildable S/F = $83,259,000
Say **$83,000,000**[5]

[5] **Equivalent to $12,593,103 Price Per Acre.**

Sales Comparison Approach

Comparable Land Sales Map

Sales Comparison Approach

Comparable Land Sales Grid

	SUBJECT	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
Address:	**1st Ave &**	**64-88**	**640**	**44-62**	**5902**	**2330**
	52nd Street	**20th Street**	**Columbia Street**	**Ferris Street**	**Borden Avenue**	**Borden Avenue**
	Sunset Park	Sunset Park/Greenwood Hghts	Red Hook	Red Hook	Maspeth	Long Island City
Location	Good	Superior	Similar	Similar	Superior	Superior
Tax ID: Block/Lot	803/9,10 + 150	635/11 +13	612/99	514/1 + 40	2657/40	68/38
		638/10 + 72		573/1,80 + 100		
				595/70		
Lot Description:						
Lot Size (S/F):	287,100	778,915	175,395	579,290	315,080	203,325
Acreage	6.591	17.881	4.027	13.299	7.233	4.668
Lot Configuration:	Very Irregular	Irregular	Irregular	Irregular	Irregular	Irregular
Waterfront Frontage/Access	Yes	Yes	No	Yes	No	No
Corner:	Yes	Yes	Yes	Yes	Yes	Yes
Zoning District:	M3-1	M3-1	M3-1	M2-1	M1-1	M3-2
Max. FAR	2	2	2	2	1	2
Max. Buildable S/F	574,200	1,557,830	350,790	1,158,580	315,080	406,650
Sales Analysis:						
Sale Date	n/a	1/10/2019	2/14/2018	12/19/2018	8/22/2017	1/24/2019
Sales Price:	n/a	$254,800,000	$47,500,000	$303,000,000	$63,000,000	$75,000,000
Financing		Conventional	Conventional	All Cash	All Cash	Conventional
Price Per Square Foot Land Area		**$164**	**$135**	**$262**	**$200**	**$184**
Market Conditions: Time Adjusted	As of 10/1/2019	0%	0%	0%	5%	0%
Adj. Price $/ FAR S/F:		**$164**	**$135**	**$262**	**$210**	**$184**
Other Adjustments:						
Motivaton:		Investor	Investor	Owner-User	Owner-User	Investor
Adjustment:		0%	0%	-10%	-10%	0%
Site Location:		Superior	Similar	Similar	Superior	Superior
Adjustment:		-5%	0%	0%	-20%	-25%
Waterfront Frontage/Access		Superior	Inferior	Superior	Inferior	Inferior
Adjustment		-5%	5%	-20%	5%	5%
Size:		Larger	Similar	Larger	Similar	Smaller
Adjustment		5%	0%	5%	0%	0%
Lot Configuration:		Superior	Superior	Superior	Superior	Superior
Adjustment		-5%	-5%	-5%	-5%	-5%
Total % Adjustment:		-10%	0%	-30%	-30%	-25%
Adj. Sales Price $/ FAR S/F:		**$147**	**$135**	**$183**	**$147**	**$138**
Adj. Sales Price Per Acre:		**$12,824,479**	**$11,796,802**	**$15,948,965**	**$6,401,694**	**$12,050,904**
Range of Adj. Values:	**$/FAR S/F**	**Per Acre**				
High	$183	$15,948,965				
Low	$135	$6,401,694				
Mean:	$150	$11,804,569				
Median:	$147	$12,050,904				
Estimated $ Per Buildable S/F:	**$145**	**$12,593,103**				
As Is Market Value Estimate:	$83,259,000	**Say**	**$83,000,000**			

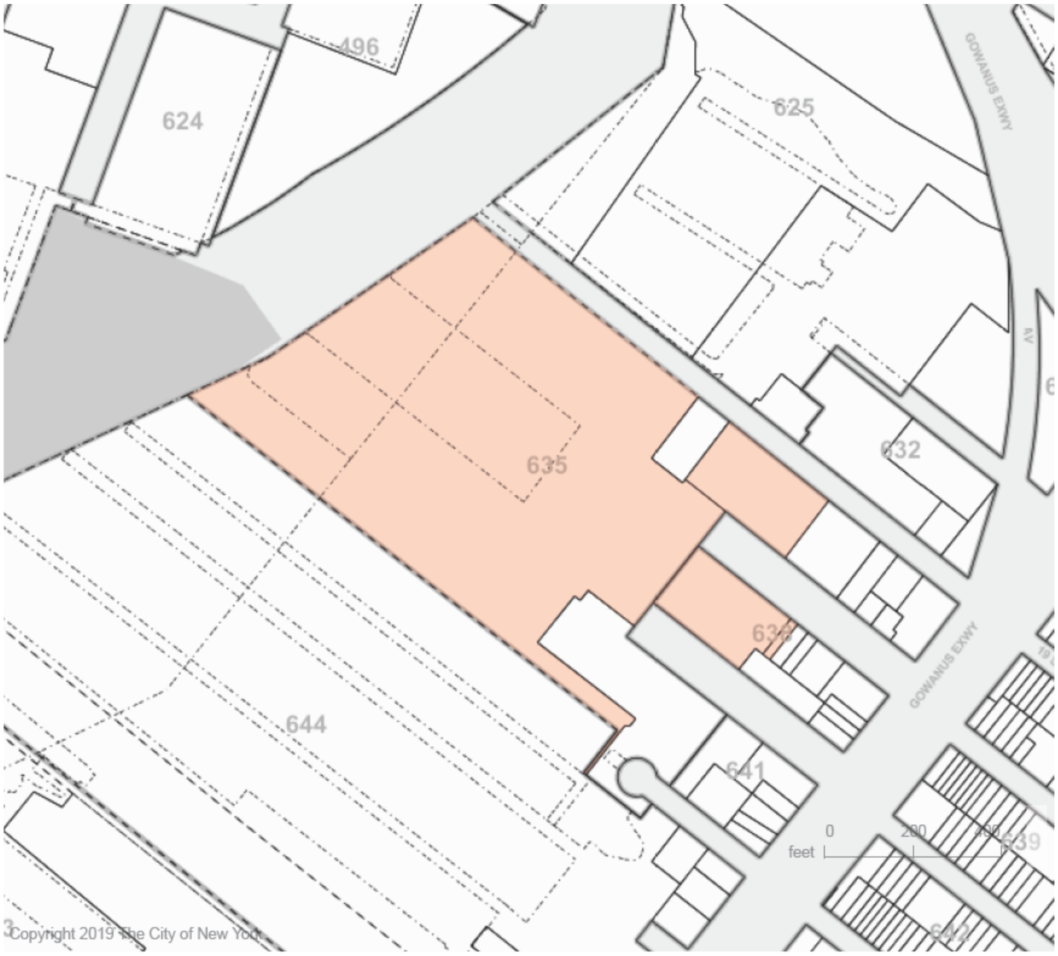
Sale #1

64-88 20th Street, 73-81 20th Street + 75-81 20th Street
Known as "Sunset Industrial Park"
Sunset Park/Greenwood Heights, Brooklyn, NY

Rendering of Proposed New Development

Sale #1 – Tax Map

64-88 20th Street, 73-81 20th Street + 75-81 20th Street
Known as "Sunset Industrial Park"
Sunset Park/Greenwood Heights, Brooklyn, NY



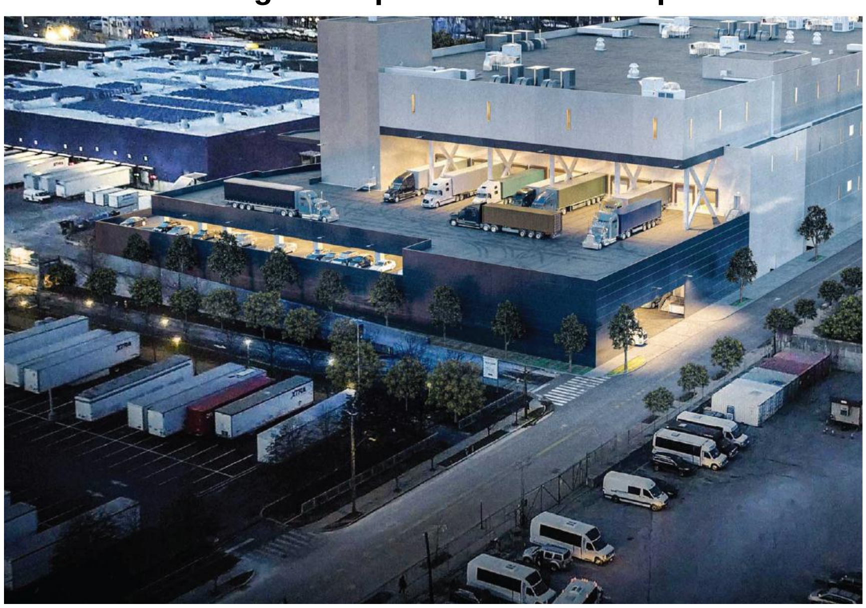
Improved Property Sale #1

Location:	64-88 20th Street, 73-81 20th Street + 75-81 20th Street Known as “Sunset Industrial Park” Block 635 Lots 11 +13 / Block 638 Lots 10 + 72 Sunset Park/Greenwood Heights, Brooklyn, New York
Plot Size:	880’ x 160.33’ Irregular
Lot Size:	17.88 Acres or 778,915± S/F
Zone:	M3-1 “Manufacturing” IBZ – Industrial Business Zone - MS4 - MS4 AREA
Maximum FAR:	2.0
Maximum Bldable:	1,557,435± S/F
Improvements:	Various low-rise structures totaling over 365,000 S/F.
Deed:	Dated: 01/10/19
Grantor:	SL Sunset Industrial II LLC + AM Sunset Owner LLC c/o 601 West Companies + Mark Karasick, Authorized Signatory 601 West 26th Street Suite 1275, NYC
Grantee:	SIP Holdings Venture LLC - c/o John Maduros, VP + CFO 2 Park Avenue, 14th Floor, NYC
Indicated Consideration:	$214,000,000 – Block 635 Lot 13 $ 40,800,000 – Block 635 Lot 11/Block 638 Lots 10 + 72
Total Consideration:	$254,800,000
1st Mortgage:	$106,825,000 - ACREIF J-I, LLC* *It was reported that lender provided a $200 mill loan but ACRIS only reported the cited amount.
Price Per Buildable S/F:	$164
Price Per Acre:	$14,249,421
Verified:	By deed & Real Estate Publications
Comments:	The 3 reported partners, Banner Oak Capital Partners (investment advisor for the Texas teachers’ pension fund), Dov Hertz (DH Holdings) and Bridge Development Partners plan to demolish the existing buildings in order to construct a 4-story distribution center of up to 1.3 million S/F. The new project will create 4 separate, stacked distribution centers, which the partners are touting as the largest of its kind in the United States. Demolition on the property is set to begin in early 2020, with construction scheduled to begin later that year.

Sale #2

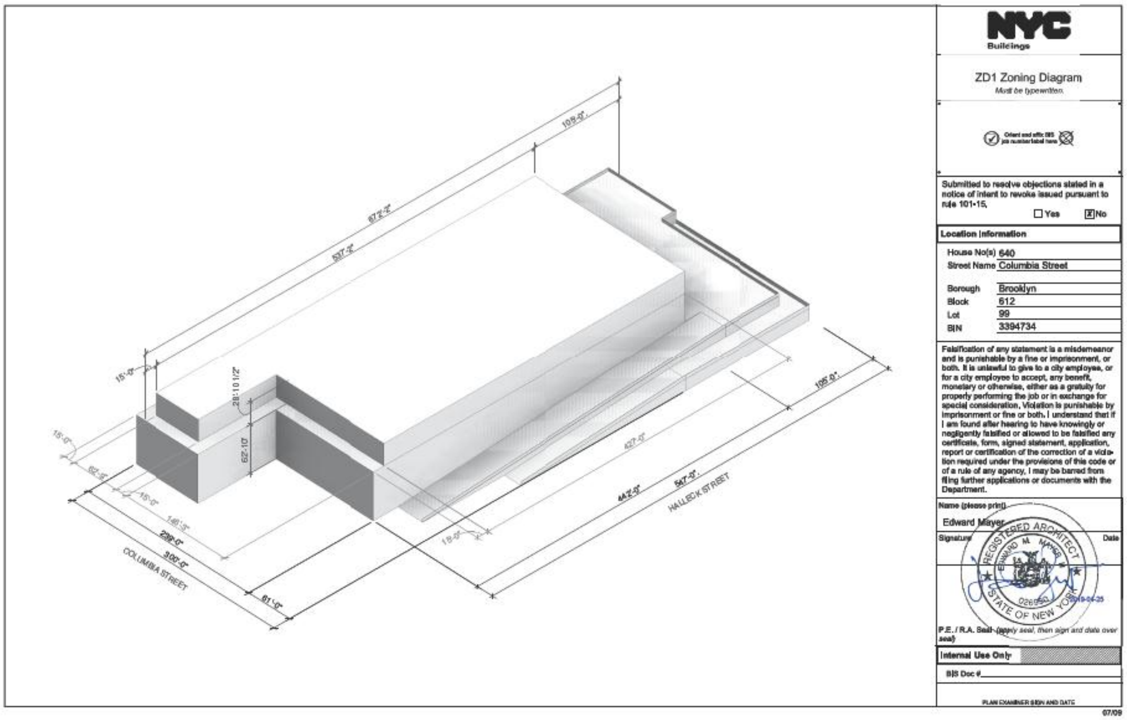
640 Columbia Street
Red Hook, Brooklyn, NY

Rendering of Proposed New Development



Sale #2 – Zoning Diagram – Land Area & Proposed Development

640 Columbia Street
Red Hook, Brooklyn, NY



Improved Property Sale #2

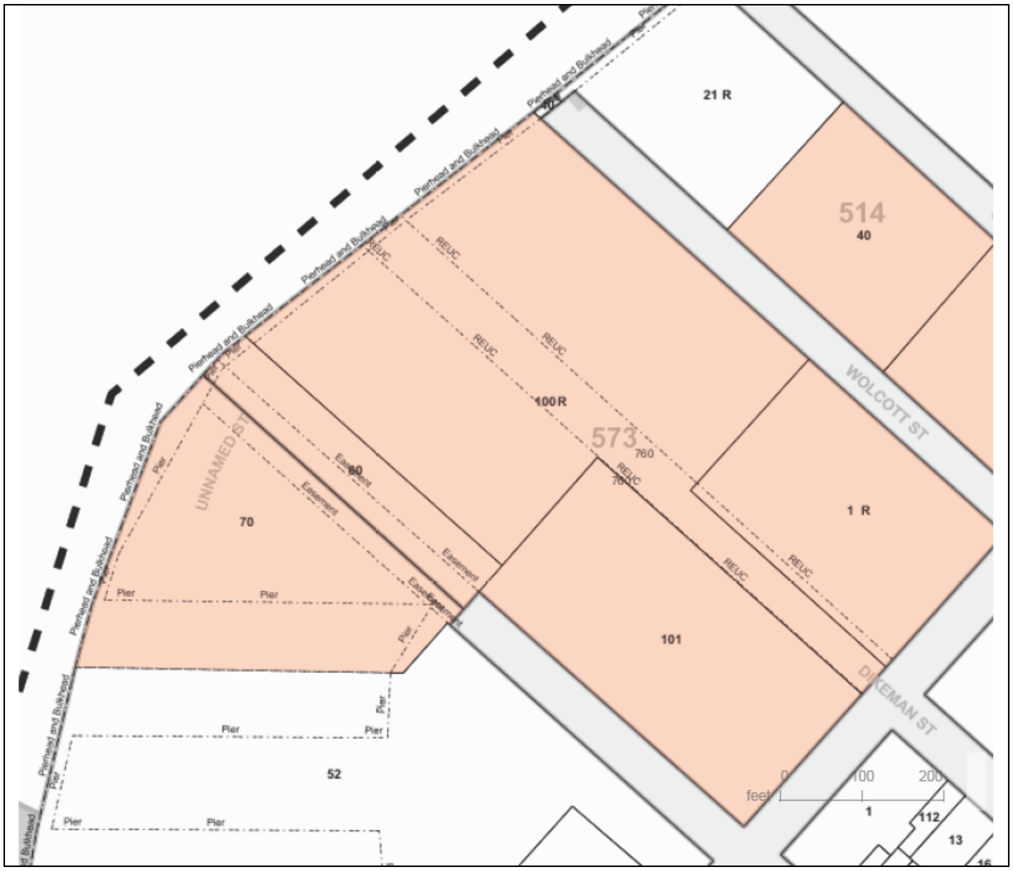
Location:	640 Columbia Street Block 612 Lot 99 Red Hook, Brooklyn, New York
Plot Size:	660' x 300' Irregular
Lot Size:	4.03 Acre or 175,395± S/F
Zone:	M3-1 "Manufacturing" Qualified Opportunity Zone
Maximum FAR:	2.0
Maximum Bldable:	350,790± S/F
Improvements:	Moderate improvements on the site.
Deed:	Dated: 02/14/18
Grantor:	Columbia / Halleck LLC + Alton Eighteen Red Hook LLC c/o 601 West Companies + Mark Karasick, Authorized Signatory 601 West 26th Street Suite 1275, NYC
Grantee:	640 Columbia Owner LLC – c/o Dov Hertz, Authorized Signatory c/o Goldman Sachs & Company Investment Management Div. 200 West Street – 3rd Floor, NYC
Indicated Consideration:	$47,500,000
1st Mortgage:	$33,000,000 – AB Commercial Real Estate Debt – B2-S.A.R.
Price Per Buildable S/F:	$135
Price Per Acre:	$11,796,802
Verified:	By deed & Real Estate Publications
Comments:	Plans filed to construct a 3-story + mezzanines, 335,813 S/F, warehouse / logistics facility. The Grantee, Dov Hertz, is also a partner in Sale #1.

<u>Sale #3</u>

44-62 Ferris Street
Red Hook, Brooklyn, NY

Sale #3 – Tax Map

44-62 Ferris Street
Red Hook, Brooklyn, NY



Improved Property Sale #3

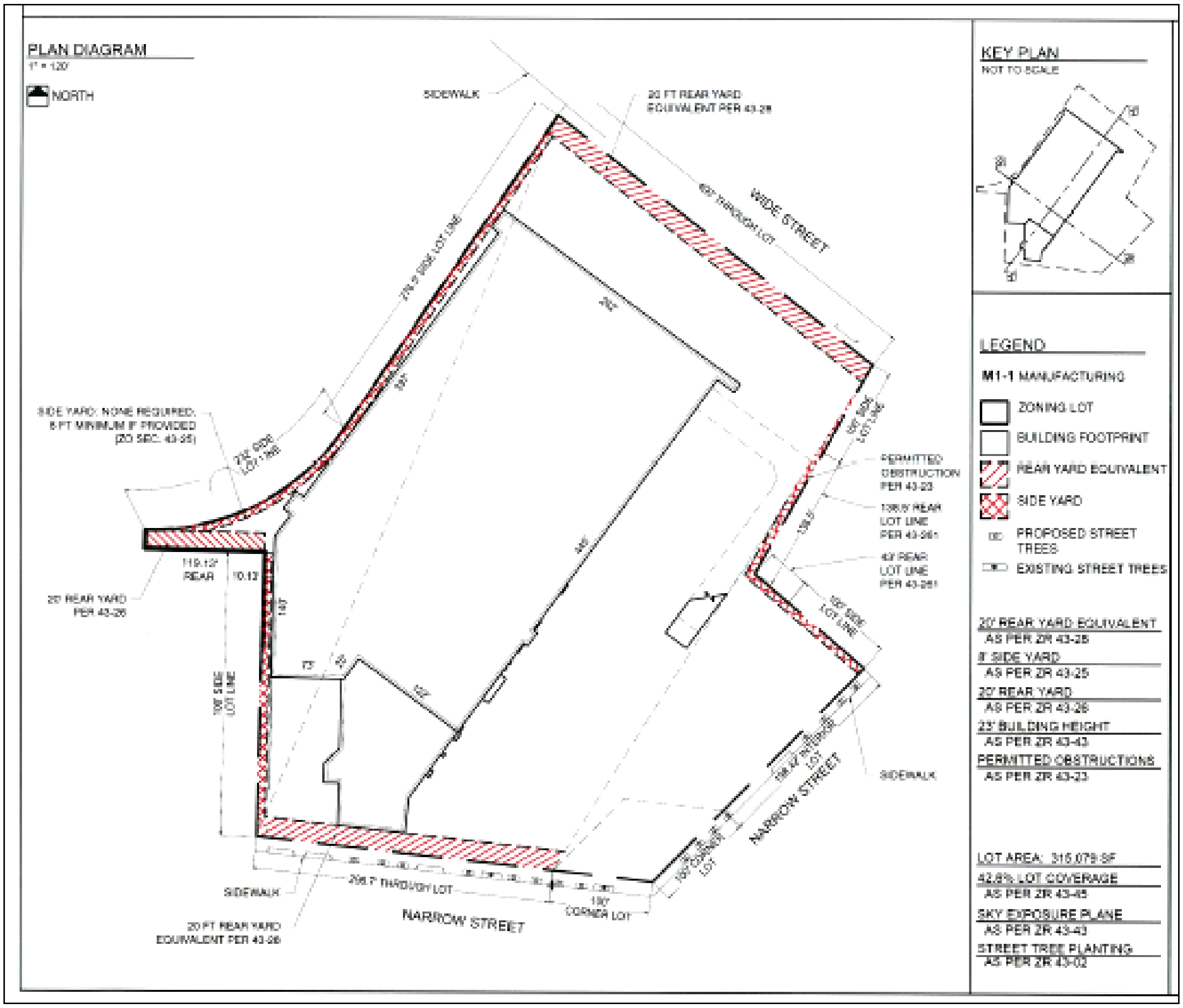
Location:	44-62 Ferris Street, 68 Ferris Street, 242 Coffey Street, 301 Coffey Street, 186-218 Wolcott Street, 219 Sullivan St. Block 514 Lots 1 + 40, Block 573 Lots 1, 80, 100 Block 595 Lot 70 – Parcel 2 Red Hook, Brooklyn, New York
Lot Area:	13.3 Acres or 579,290± S/F
Zone:	M3-1 “Manufacturing” - Qualified Opportunity Zone
Maximum FAR:	2.0 Commercial
Maximum Bldable:	1,158,580± S/F
Deed Dated:	Dated 12/19/18
Grantor:	Red Hook Industrial Center, LLC – c/o Brian Milberg, Manager c/o Sitex Group, LLC, 10 W. Forest Avenue, Englewood, NJ
Grantee:	BT Red Hook LLC – c/o Stephen M. Slifer, VP c/o United Parcel Service Inc. 55 Glendale Parkway, Atlanta, Ga.
Indicated Consideration:	$303,000,000 All Cash
Price Per Buildable S/F:	$262
Price Per Acre:	$22,784,236
Verified:	By deed & Real Estate Publications
Comments:	Prior to acquisition, Parcel 2 was under a recent net lease to the Grantee, UPS. The Grantee intends to demolish the existing structures to build a much larger, multi-story distribution center.

<u>Sale #4</u>

59-02 Borden Avenue
Maspeth, Queens, NY

Sale #4 – Plan Diagram

59-02 Borden Avenue
Maspeth, Queens, NY



Improved Property Sale #4

Location:	59-02 Borden Avenue aka 59-15 Maurice Avenue Block 2657 Lot 40 Maspeth, Queens, New York
Plot Size:	399' x 376' Irregular
Lot Size:	7.3 Acre or 315,080± S/F
Zone:	M1-1 "Manufacturing"
Maximum FAR:	1.0 Commercial
Maximum Bldable:	315,080± S/F
Improvements:	2-story and mezzanine structure formerly used as a Coca-Cola Bottling Plant.
Deed:	Dated: 08/22/17
Grantor:	Kaymac Corporation – c/o William J. Williams Jr., President c/o Sullivan & Cromwell, 125 Broad Street – 35th Floor, NYC
Grantee:	Home Depot U.S.A. Inc. 2455 Paces Ferry Road, Atlanta, Ga.

Indicated Consideration: $63,000,000 All Cash as per ACRIS

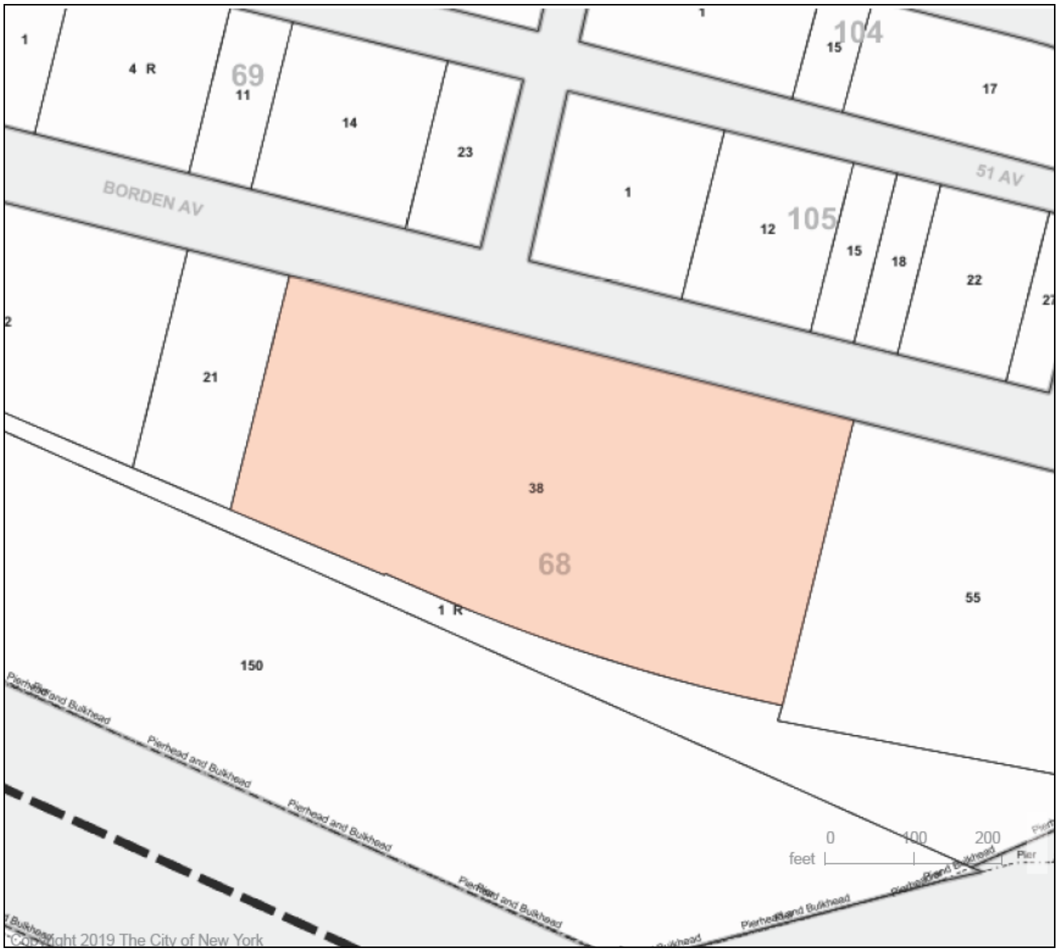
Price Per Buildable S/F:	$200
Price Per Acre:	$8,709,788
Verified:	By deed & Real Estate Publications
Comments:	The Grantee subsequently filed plans to demolish the existing building to construct a 1-story retail building with extensive parking.

Sale #5

23-30 Borden Avenue
Long Island City, Queens, NY

Sale #5

23-30 Borden Avenue
Long Island City, Queens, NY



Improved Property Sale #5

Location:	23-30 Borden Avenue Block 68 Lot 38 Long Island City, Queens, New York
Plot Size:	654' x 329' Irregular
Lot Size:	4.67 Acre or 203,235± S/F
Zone:	M3-2 "Manufacturing" Qualified Opportunity Zone
Maximum FAR:	2.0 Commercial
Maximum Bldable:	406,470± S/F
Improvements:	2-story and mezzanine structure formerly used occupied as a warehouse by Fresh Direct online grocery store. There is also a 6,000 S/F LED advertising sign on the premises.
Deed:	Dated: 01/24/19
Grantor:	Borden Industrial LLC – c/o Atlas Capital Investors c/o Jeffrey Goldberger & Arthur B. Cohen, Authorized Signatories 400 Park Avenue - 4th Floor, NYC
Grantee:	23-30 Borden Owner LLC – c/o Innova Propety Group c/o Andrew Chung, Authorized Signatory 1370 Avenue of Americas, NYC
Indicated Consideration:	$75,000,000
1st Mortgage:	$61,000,000 PCRED Mortgage REIT Inc.
Price Per Buildable S/F:	$185
Price Per Acre:	$16,067,872
Verified:	By deed & Real Estate Publications
Comments:	The Grantee filed plans to demolish the existing building. No plans have filed yet for a new building; however, Grantee has been actively redeveloping similar type properties for E-commerce logistics/distribution centers including Sale #6. The property had previously been acquired for 2/18/16 for $48,000,000 from Fresh Property 1, LLC.

Summary of the Appraisal & Final Value Estimate

The appraiser was informed by the client that The Property consists of 6.591 acres of upland and although improved with various industrial structures, the scope of the appraisal is to estimate its value as vacant land, free of any environmental conditions. The purpose of this appraisal is for the negotiation of a lease extension between my client and the Office of General Services for an underwater 3.969 acre easement immediately to the west of The Property that contains 4 gas turbine units and substation sitting atop of the cited area. As unimproved land neither the Cost and/or Income Capitalization Approaches to value are considered applicable.

The Sales Comparison Approach is the only approach considered applicable to value The Property because when there are quantitative, qualitative sales available for analysis, it can provide a reliable indication of prices typical buyers and sellers have been willing to buy and sell properties of the same general type within the market or competing areas.

Sales were analyzed with appropriate consideration given to and adjusted for differences in elements of comparison that typically cause prices of otherwise similar properties to vary. The result of the adjustment process was a range of $135 - $183 per buildable S/F for industrial uses as per the subject's current zoning. Based on the analysis of the five (5) sales selected, an estimated unit of $145 per buildable S/F for the subject which, when multiplied by 574,200 S/F, yields an estimate value indication of **$83,000,000** (rounded).

EIGHTY THREE MILLION DOLLARS

($83,000,000)[6]

[6] Market value estimate assumes that the site is environmentally clean and can be redeveloped for industrial/commercial use in conjunction with its proposed highest and best use. Market Value estimate is equivalent to $12,593,103 per acre.

Certification

I, Michael Silber, certify that, to the best of my knowledge and belief that:

- I have inspected the property that is the subject of this report.

- The statements of fact contained in this report are true and correct.

- The reported analyses, opinions and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions and conclusions.

- My analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice.

- I have no present or contemplated interest in the property that is the subject of this report, nor personal interest or bias with respect to the interested parties.

- My compensation is not contingent upon reporting of a predetermined value or direction in value favoring the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or occurrence of a subsequent event.

- I am in compliance with the Competency Provision in Uniform Standards of Professional Appraisal Practices as adopted by the Board of Governors of the Federal Reserve System under Title XI of the FIRREA 1989 (and as amended), and have sufficient education and experience to perform the appraisal of the subject property.

- The appraisal has been prepared in conformance with Title XI of the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), the Uniform Standards of Professional Appraisal Practice (USPAP) as promulgated by the Appraisal Standards Board of the Appraisal Foundation, Standards of Professional Appraisal Practice of the Appraisal Institute, the Interagency Appraisal and Evaluation Guidelines dated December 2010.

- No one provided the appraiser with significant professional assistance.

- This appraisal assignment was not based on a requested minimum loan valuation, a specific valuation, or the approval of a loan.

- I have not performed services as an appraiser of the subject property within the three-year period immediately preceding this assignment.

Respectfully submitted,

Michael Silber, Managing Director, NYS Certified
Real Estate General Appraiser #46-2889

Addenda

Qualifications of the Firm and Appraiser

Jacques O. Tuchler & Associates

Real Estate Appraisers, Reviewers & Consultants
26 Court Street, Suite 2301, Brooklyn, NY 11242
Phone (718) 625-2080 ● Fax (718) 797-5531 ● Email: tuchlerassociates@att.net

This firm was established over fifty (50) years ago by Jacques O. Tuchler, MAI, SRPA, and, from February 1990 to September 2015, had been under sole proprietorship of Doris Silber, MAI, who had been associated with the firm for over twenty-five (25) years, and a general partner since 1985. The Managing Director of the firm is currently Michael Silber, New York State Certified Real Estate General Appraiser.

As one of the oldest professional real estate appraisal firms in New York City, Jacques O. Tuchler & Associates serves banks, insurance companies, law firms, utility companies, government agencies, and individuals requiring evaluations, consultations and appraisals of real estate throughout metropolitan New York, and Nassau, Suffolk & Westchester counties.

Property Types:

Existing and proposed retail, commercial, office, medical, industrial, residential, specialty, community facility, and mixed-use buildings; cooperative/condominium developments, garden apartment complexes; gasoline sales and service stations; hotels, motels; shopping centers; houses of worship; theaters; nursing homes, assisted living facilities, and vacant land. Projects involving conventional or special government financing, 3rd party transfers, real estate tax exemptions and/or abatements, tax credits, IDA, ICIP, 421, J51, among others.

Special Appraisal & Appraisal Service Projects:

- City-owned sites involved in part of South Street Seaport Urban Renewal Area.
- The Loew's Kings, Pavilion, and Fortway movie theatres, among others.
- Investment evaluation of alternate use of a dormitory facility for Pratt Institute
- 20 metropolitan banking institutions and branches for Federal Home Loan Bank Board, as well as other headquarters and branches for other clients.
- A weekend retreat, senior citizen residence, churches, and other community use facilities for the Roman Catholic Diocese of Brooklyn.
- School sites, headquarters, housing, a gymnasium and recreation center in Brooklyn and Long Island for The Sisters of Mercy.
- Bungalow colonies in the Catskill Mountains region.

Jacques O. Tuchler & Associates

- SROs, Class B hotels, theaters, schools, nursing homes, assisted living facilities, landmarked sites, community use facilities, and building shells proposed for rehabilitation and/or conversion for various governmental and not-for-profit agencies.
- New York City Partnership Home projects scheduled for construction in the boroughs of Bronx, Brooklyn, Manhattan, and Queens.
- Industrial, residential and mixed-use properties, and used auto facility and gas stations in Sunset Park, Brooklyn, NY for the New York City School Construction Authority.
- Third Party Transfer residential properties for JPMorgan Chase Bank and Citibank.
- Fulton Ferry Fireboat House parcels for NYC Economic Development Corporation.
- Appraisals for the City of New York in matters of bankruptcy and certiorari.
- Appraisals, conferences and expert testimony for City of New York Law Department, (Condemnation Division) in urban renewal and capital projects; some examples follow

Brooklyn: Cobble Hill II, Caribe Village, Columbia Street, East New York Industrial, Broadway Triangle, Saratoga Square, Coney Island, Atlantic Terminal, Brooklyn Center, Flatbush Commercial Revitalization, Municipal Parking Sites, and Newtown Creek.

Queens: Louis Armstrong Memorial Project, Springfield Gardens Road Widening, and Barnwell Replacement Site.

Bronx: Gun Hill Road, Bronx River Avenue, Major Deegan Expressway.

Manhattan: Pueblo Nuevo Houses, Lower East Side Phases I & II, West Village Houses, Harlem/East Harlem, Piers 16 & 17.

Staten Island: Conference House Park Addition (Biddle House).

Partial List of Clients Served [7]

Abacus Bank
Amalgamated Bank of New York
American Savings and Loan
Anchor Savings Bank
Atlantic Liberty Savings, FA
BCB Bank
Bank of New York
Bank of Tokyo
Bank of Venezuela
JPMorgan Chase Bank
Citibank, NA
Cohoes Bank
Columbia Federal Savings Bank
New York Community Bank
Country Bank
Dime Savings Bank
Dime Community Bank
Federal Home Loan Bank Board
Fidelity Bank
First Nationwide Bank
Gotham Bank of New York
Greater New York Savings Bank
Independence Community Bank
Lehman Brothers
Lincoln Savings Bank
Lockport Savings Bank
Manufacturers Hanover Trust
Marine Midland Bank
Orix USA
Peoples Bank of Pennsylvania
Queens County Savings Bank
Roosevelt Savings Bank
Republic National Bank
Seamen's Bank for Savings
Yasuda Trust and Banking Co., Ltd.
Equitable Life Assurance Society

[7] Some have since consolidated or were taken over.

Partial List of Clients Served (Cont'd)

Pratt Institute
Roman Catholic Diocese
Spring Bank
State of New York Mortgage Agency
State of New York Dormitory Authority
New York State Office of Mental Health
NYS Facilities Development Corporation
City of New York, Law Department
City of New York, Public Development Corporation
City of New York Economic Development Corporation
City University of New York
New York City School Construction Authority
Public Administrator, Kings County & New York County
Housing Preservation & Development Corporation
U.S. Attorney's Office - Eastern District of New York
U.S. Government, Veterans Administration
U.S. Government, General Services Administration
U.S. Department of Commerce
Port Authority of New York & New Jersey
Exxon Standard Oil Company
Gulf Oil & Refining Company
Chas. Pfizer & Company
Brooklyn Union Gas Company
Consolidated Edison
Federal Deposit Insurance Corporation
Health Insurance Plan of Greater New York
Kodak Corporation
Maimonides Hospital
Midland Loan Services Corp.
Resolution Trust Corporation
Toyota Motor Credit Corporation
Trotter-Kent, Inc.
Urban Markets, Inc.

MICHAEL SILBER

MANAGING DIRECTOR & CHIEF APPRAISER

Education:

2003: **Real Estate Board of New York**
Finance & Financial Feasibility Analysis; Marketing & Leasing; Financing & Investing in Real Estate

1985-2007: **The Appraisal Institute/New York University**
Standards of Professional Practice
Appraisal Principles
Valuation Procedures
Capitalization Theory & Techniques Case Studies
Valuation Analysis & Report Writing
Appraising Specialty Properties
New York City Apartment Buildings
Understanding DCF Software
Current Issues in Real Estate Finance
State of the Market (Post Sept. 11th) - Rebuilding New York City
Sophisticated Techniques of Real Estate Finance
Manhattan Skyline 1 Year Later / Reflections of New York's Past, Present & Future
Uniform Standards of Professional Appraisal Practice Update/Course 400
Attacking and Defending an Appraisal in Litigation Part II
Appraisals and Real Estate Lending: What Every Banker Should Know
Uniform Standards of Professional Appraisal Practice Update/400-2005
Trends & Projections Affecting Real Estate Values
Uniform Standards of Professional Appraisal Practice Update/400-2006
Business Practices & Ethics Course 1142N (#420) / 2006
Supporting Capitalization Rates
AI/RICS International Conference / 3/2007: The Challenges of Development in New York / The Appraiser as an Expert Witness / Issues: Legislation, Incentives, Community Boards & What To Build In Today's Climate

New York University
Condominiums & Cooperative Conversions

Brooklyn College
Real Estate Continuing Education

Society of Real Estate Appraisers
Basic Valuation Course 101

East Tennessee State University:
B.S. Degree

MICHAEL SILBER

MANAGING DIRECTOR & CHIEF APPRAISER

Employment:

1988-Present	**Chief Appraiser/Managing Director** *Jacques O. Tuchler & Associates* In addition to the scope of work described below, organize the work-load and train new employees. Evaluate, acquire, and implement new computer hardware and software programs.
Employment:	**Associate Appraiser:** *Jacques O. Tuchler & Associates* Consultations, valuations and evaluations of all property types for financing, estate tax, gift tax, estate planning, divorce actions, marketing, development, condemnation, asset management, and other purposes. **Staff Appraiser:** *Jacques O. Tuchler & Associates*
Licenses & Professional Affiliations	NYS Licensed Real Estate Broker NYS Licensed/Certified Real Estate General Appraiser #46-2889 Brooklyn Chamber of Commerce Appraisal Institute: Affiliate Member

EXHIBIT C

APPRAISAL OF REAL PROPERTY

NYPA Industrial Site for Lease
31-03 20th Avenue
Astoria, Queens County, NY 11105

IN A RESTRICTED APPRAISAL REPORT

As of August 21, 2019

Prepared For:

Astoria Generating Company, L.P.
18-01 20th Avenue
Astoria, NY 11105

Prepared By:

Cushman & Wakefield, Inc.
Valuation & Advisory
1290 Avenue of the Americas, 9th Floor
New York, NY 10104-6178
Cushman & Wakefield File ID: 19-12002-902375

NYPA Industrial Site for Lease

31-03 20th Avenue

Astoria, Queens County, NY 11105

CUSHMAN & WAKEFIELD

1290 Avenue of the Americas, 9th Floor
New York, NY 10104-6178
Tel +1 (212) 841-7500
cushmanwakefield.com

August 21, 2019

Mr. Jesse M. Levin
Astoria Generating Company, L.P.
18-01 20th Avenue
Astoria, NY 11105

Re: Commercial Evaluation of Real Property
In a Restricted Appraisal Report

NYPA Industrial Site for Lease
31-03 20th Avenue
Astoria, NY 11105

Cushman & Wakefield File ID: 19-12002-902375

Dear Mr. Levin:

In fulfillment of our agreement, we are pleased to transmit this Restricted Appraisal Report, which provides market rent estimates for the subject site for two requested lease terms. The report is intended to comply with the reporting requirements set forth under Standards Rule 2-2(b) of the Uniform Standards of Professional Appraisal Practice (USPAP).

In accordance with USPAP, the use of this report is restricted to the client only. The report presents limited discussions of the data, reasoning, and analyses used in the appraisal process to develop the appraiser's opinion of value. It may not be understood without additional information in the appraiser's work file. The depth of discussion contained in this report is specific to the needs of the client and for the intended use stated in the following pages.

Client:	Astoria Generating Company, L.P. 18-01 20th Avenue Astoria, NY 11105.
Intended User:	In compliance with USPAP, the Client is the only Intended User
Intended Use:	The Intended Use of this report is for assisting the client with providing a market-oriented ground rent bid to the property owner, which has requested bid requests from interested parties for leasing the vacant land for a specified use discussed herein.

<table>
<tr><td>Identification of the Real Estate:</td><td>NYPA Industrial Site for Lease
31-03 20th Avenue
Astoria, NY 11105</td></tr>
<tr><td>Current Use:</td><td>Vacant land adjacent to NYPA’s 500-megawatt power plant</td></tr>
<tr><td>Zoning:</td><td>M3-1, with maximum permissible floor area ratios of 2.0 for most non-residential uses</td></tr>
<tr><td>Flood Zone Description:</td><td>While we recommend a site plan from ownership, the subject site appears to be located primarily, if not fully, in a VE Flood Zone, as indicated by FEMA Map 360497 0194F dated 09/05/2007, This category is for flood hazard districts along coasts subject to inundation by the 100-year flood with additional hazards due to velocity (wave action).

</td></tr>
<tr><td>Assessor’s Parcel Number:</td><td>Part of Block 850, Lot 100 (an internal portion of site off 19th Street)</td></tr>
<tr><td>Utilities:</td><td>The subject has access to all utilities.</td></tr>
<tr><td>Highest and Best Use</td><td>It is our opinion that the Highest and Best Use of the subject site is for industrial development likely relating to the neighborhood’s hub location for New York City’s energy/utility operators.</td></tr>
<tr><td>Type of Value:</td><td>Market Rent</td></tr>
<tr><td>Real Property Interest Valued:</td><td>Fee Simple</td></tr>
<tr><td>Current Ownership:</td><td>New York Power Authority</td></tr>
</table>

Sales History and Tenant Purchase Options:	To the best of our knowledge, the subject is not under contract of sale nor is it being marketed for sale. Alternatively, the property owner has issued a Request for Proposal (RFP) to solicit proposals from qualified developers interested in leasing this vacant portion of its larger site for the development and construction of a new front-of-the-meter energy storage facility that "will participate in the Consolidated Edison Company of New York, Inc".
Date of Inspection:	N/A
Effective Date of Value:	August 21, 2019
Date of Report:	August 21, 2019
Extraordinary Assumptions:	This appraisal does not employ any extraordinary assumptions.
Hypothetical Conditions:	This appraisal does not employ any hypothetical conditions.
Exposure Time:	6 months

Market Value Definition

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in United States dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.
- Source: (12 C.F.R. Part 34.42(g) Federal Register 34696, August 24, 1990, as amended at 57 Federal Register 12202, April 9, 1992; 59 Federal Register 29499, June 7, 1994)

Scope of Work

Scope of work is the type and extent of research and analyses involved in an assignment. To determine the appropriate scope of work for the assignment, we considered the intended use of the appraisal, the needs of the user, the relevant characteristics of the subject property, and other pertinent factors. We prepared this independent and impartial appraisal of the property in conformance with the requirements of USPAP. The report includes only the appraiser's conclusion and cannot be properly understood without reference to the appraiser's file, which is maintained within our work file. The level of detail and depth of the analysis is considered to be commensurate with the complexity of the property type and market conditions.

As part of this appraisal, a number of independent investigations and analyses were required. The agreed upon Scope of Work included the following:

- We did not inspect the property and its environs. Rather, the appraiser relied upon a commercial observation and photographs provided by an independent vendor. Physical information on the subject was obtained from the property owner's representative, public records, and/or third-party sources where necessary.
- Collected primary and secondary data related to the subject.
- Investigated the general trends in the regional economy and local area.
- Investigated sales in the subject's market and analyzed rental data where appropriate.
- Used generally accepted market-derived methods and procedures appropriate to the assignment.
- Set forth all assumptions and limiting conditions that affect the analysis, opinion and conclusions, as stated in the report.
- Provided a signed certification in accordance with Standards Rule 2-3 of USPAP.
- Sufficient data, due diligence, and analysis are combined in this valuation to produce a reliable market value conclusion that serves the needs of the client.

This report is intended to comply with the reporting requirements outlined under USPAP for a Restricted Appraisal Report.

Cushman & Wakefield, Inc. has an internal Quality Control Oversight Program. This Program mandates a "second read" of all appraisals. Assignments prepared and signed solely by designated members (MAIs) are read by another MAI who is not participating in the assignment. Assignments prepared, in whole or in part, by non-designated appraisers require MAI participation, Quality Control Oversight, and signature.

Report Option Description

USPAP identifies two written report options: Appraisal Report and Restricted Appraisal Report. This document is prepared as a Restricted Appraisal Report in accordance with USPAP guidelines. The terms "describe," summarize," and "state" connote different levels of detail, with "describe" as the most comprehensive approach and "state" as the least detailed. As such, the following provides specific descriptions about the level of detail and explanation included within the report:

- States the real estate and/or personal property that is the subject of the appraisal, including physical, economic, and other characteristics that are relevant
- States the type and definition of value and its source
- States the Scope of Work used to develop the appraisal
- States the information analyzed, the appraisal methods used, and the reasoning supporting the analyses and opinions; explains the exclusion of any valuation approaches
- States the use of the property as of the valuation date
- States the rationale for the Highest and Best Use opinion

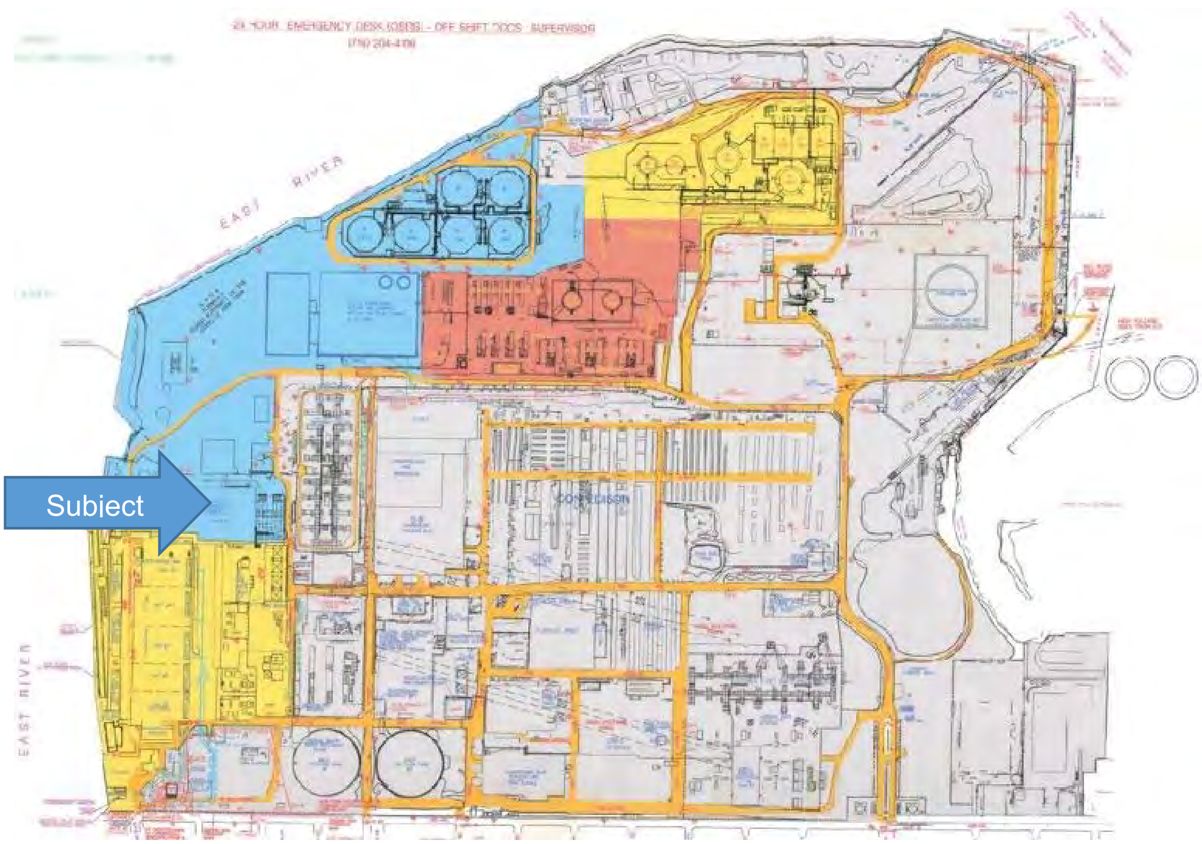
Appraisal Methodology

There are three generally accepted approaches to developing an opinion of value: Cost, Sales Comparison and Income Capitalization. In appraisal practice, an approach to value is included or eliminated based on its applicability to the property type being valued and the quality of information available. The reliability of each approach depends on the availability and comparability of market data as well as the motivation and thinking of purchasers.

This appraisal employs aspects of the Sales Comparison Approach, for determining land value, and the Income Capitalization Approach, for determining a market-oriented rate-of-return to be applied to land value for determining market rent. As the subject is vacant land, the Cost Approach is not applicable.

Neighborhood/Market Summary

With reference to forthcoming maps, the subject property is a 4.4-acre vacant non-waterfront portion of a larger 47-acre waterfront industrial site owned by the New York Power Authority. NYPA's site is part of a 291-acre original tract formerly shared with Consolidated Edison and others, which has been used since 1905 for the generation of electricity for New York City residents and businesses. ConEd still owns the 124-acre Lot 1 illustrated below in gray, which is utilized primarily for electric transmissions. The three other owners within the overall industrial zoning district at the northwestern corner of Queens County were acquired by other energy companies in the years following New York State's deregulation of the energy industry in 1998.

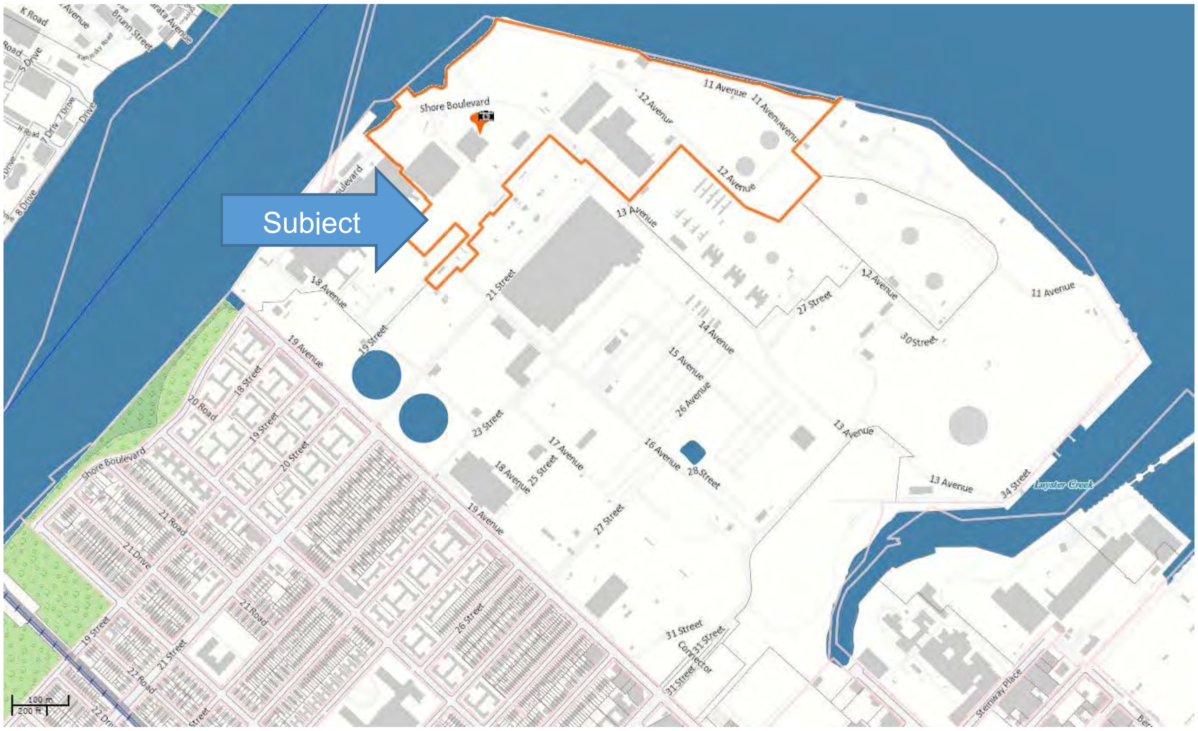


The map above represents the Transportation/Utility area of Astoria at the northeast corner of Queens County (plus another new power plant constructed on the east side of the creek/inlet summarized below). The subject's immediate neighborhood to the north of 20th Avenue with the East River as the west and north borders, as well as the Ravenswood Generating Station in the north part of Long Island City, provides more than half of the energy power consumed in New York City by all residential, commercial and government users.

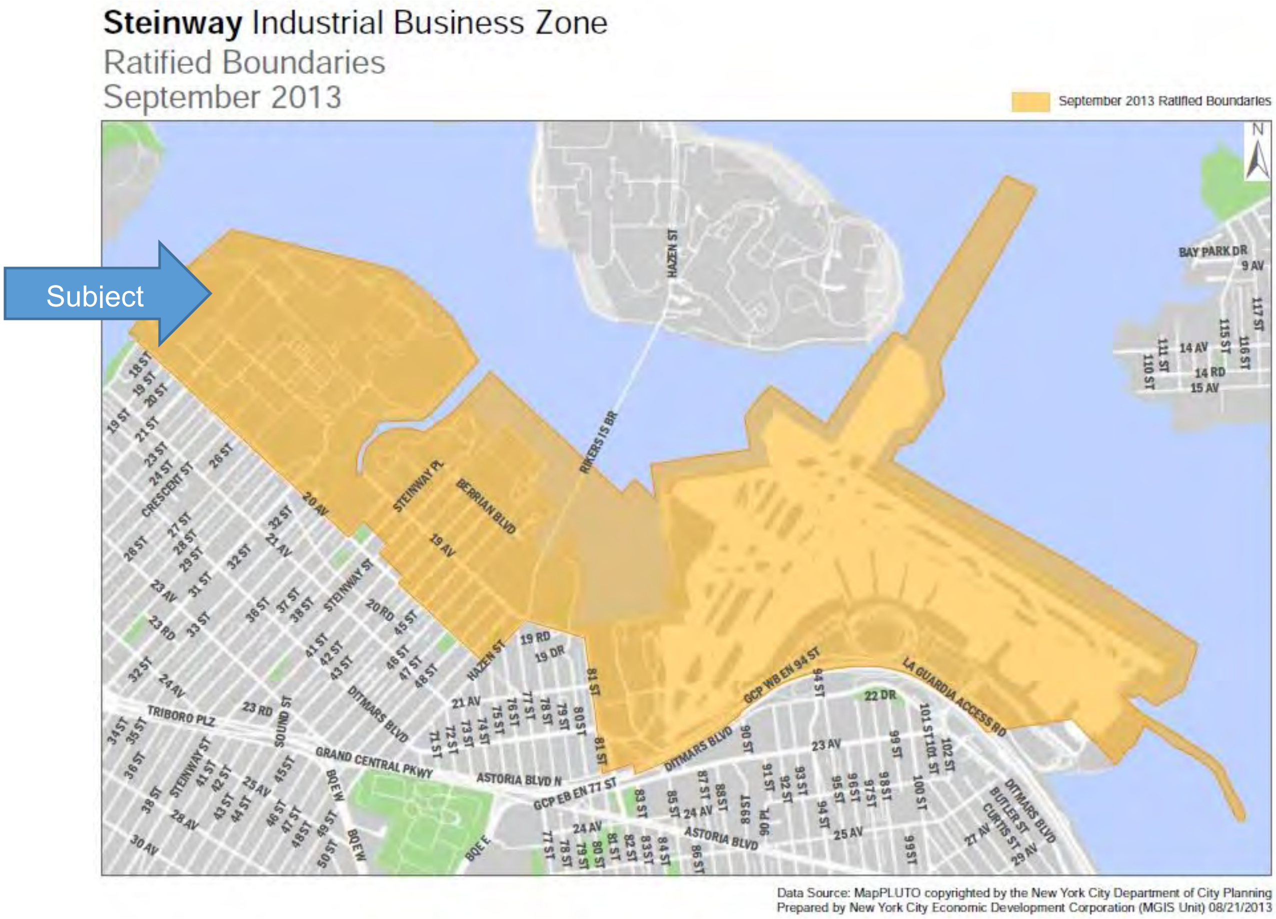
The various power generation plants, besides Astoria Generating's two properties in yellow on the preceding page (plant on bottom left and tank farm on top right), are as follows:

1) New York Power Authority (in blue) opened a new 500-Megawatt (MW), combined-cycle, natural gas-fired power plant in 2005 on its 47-acre site, with the adjoining 1977-opened Charles Poletti Power Project being subsequently closed in 2010;
2) NRG Energy (in dark orange), an independent power producer, upgraded its original 600-MW plant acquired from ConEd by expending about $1.5 billion to repower its plant with combined-cycle turbines that increases power generation by an additional 400 MW's
3) On the east side of the Luyster Creek, privately-held Astoria Energy, LLC has built a two-phase energy generation facility at 17-10 Steinway Street abutting the East River to the north. The twin Astoria I and Astoria II plants of 550-MW's apiece were opened in 2005 and 2011, respectively, being gas-fired combined cycle plants.

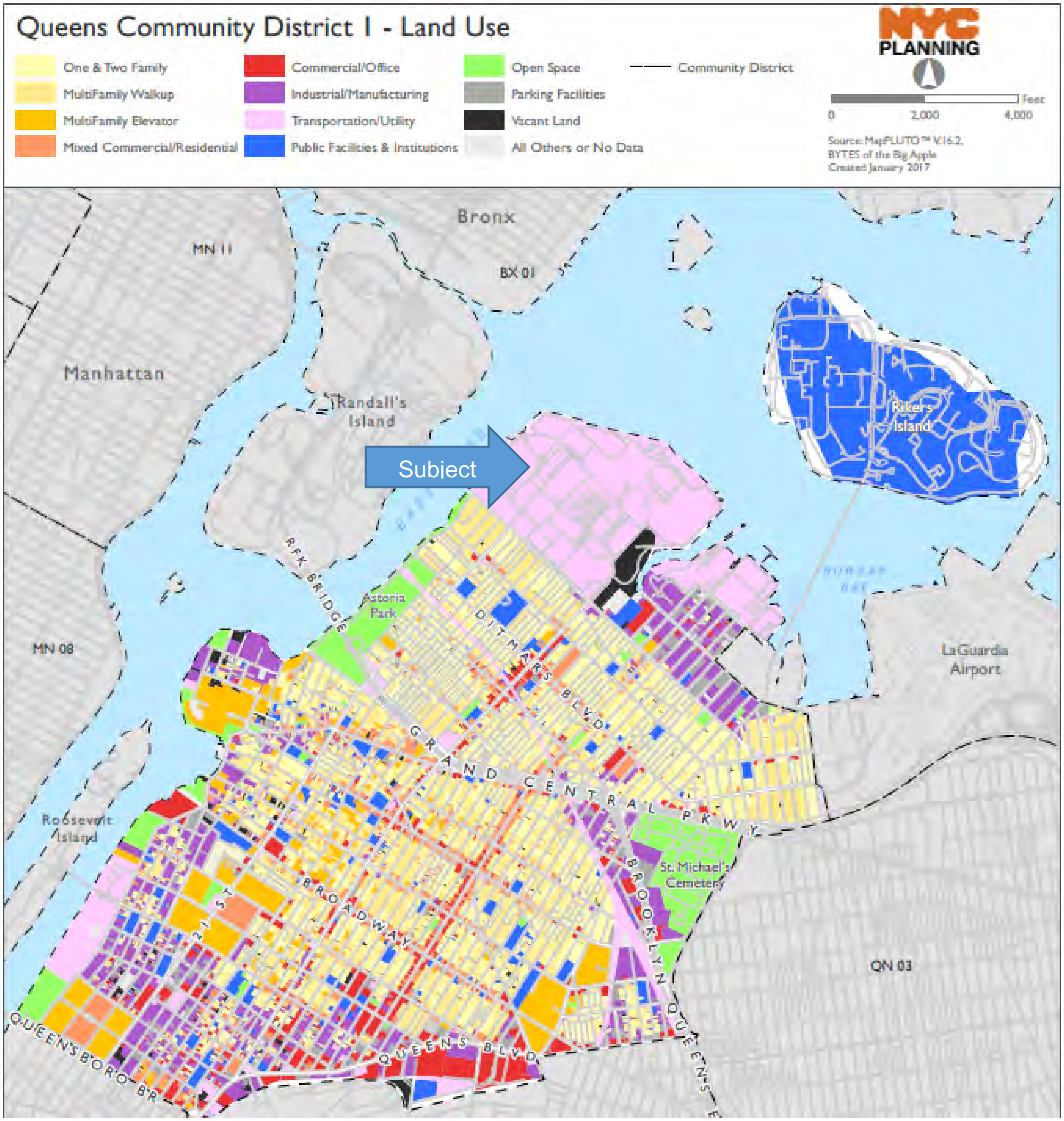
The following map illustrates the vacant 4.4-acre portion of NYPA's 47-acre site that is the subject of this appraisal for market rent estimation purposes.



NYPA's 47-Acre Site



The subject's industrial-zoned area of north Astoria abuts the Astoria neighborhood to its south encompassing all or portions of 238 blocks extending south from 20th Avenue that was approved for rezoning by the City Council in May 2010. The rezoning encourages new mixed-used, moderate-density development similar in scale as the mostly older low-rise and mid-rise single-family, two-family and apartment housing. Larger Class A apartment projects are presently being constructed in the south end of the rezoned portion of Astoria abutting Long Island City. As illustrated above, the subject property and surrounding energy generation plants, as well as Leguardia Airport, are situated within an Industrial Business Zone, which is set aside by city planning for employment-oriented industrial uses. Otherwise, the subject is not situated within a federally designated Opportunity Zone, being a few blocks north of the nearest one.


Queens Community District 1 - Land Use
One & Two Family
MultiFamily Walkup
MultiFamily Elevator
Mixed Commercial/Residential
Commercial/Office
Industrial/Manufacturing
Transportation/Utility
Public Facilities & Institutions
Open Space
Parking Facilities
Vacant Land
All Others or No Data
Community District
NYC PLANNING
Feet
0
2,000
4,000
Source: MapPLUTO ™ V.16.2, BYTES of the Big Apple
Created January 2017
Bronx
MN 11
BX 01
Manhattan
Randall's Island
Subject
Rikers Island
RFK BRIDGE
Astoria Park
DITMARS BLVD
MN 08
LaGuardia Airport
GRAND CENTRAL PKWY
Roosevelt Island
St. Michael's Cemetery
BROADWAY
21 ST
BROOKLYN QUEENS EXPY
QN 03
QUEENSBORO BR
QUEENS BLVD

Land Valuation

Using the Sales Comparison Approach, we developed an opinion of land value by comparing the subject's 4.4-acre site to similar, recently sold properties and current offerings in the surrounding or competing area. This approach relies on the principle of substitution, which holds that when a property is replaceable in the market, its value tends to be set at the cost of acquiring an equally desirable substitute property (assuming no costly delay being encountered in making the substitution).

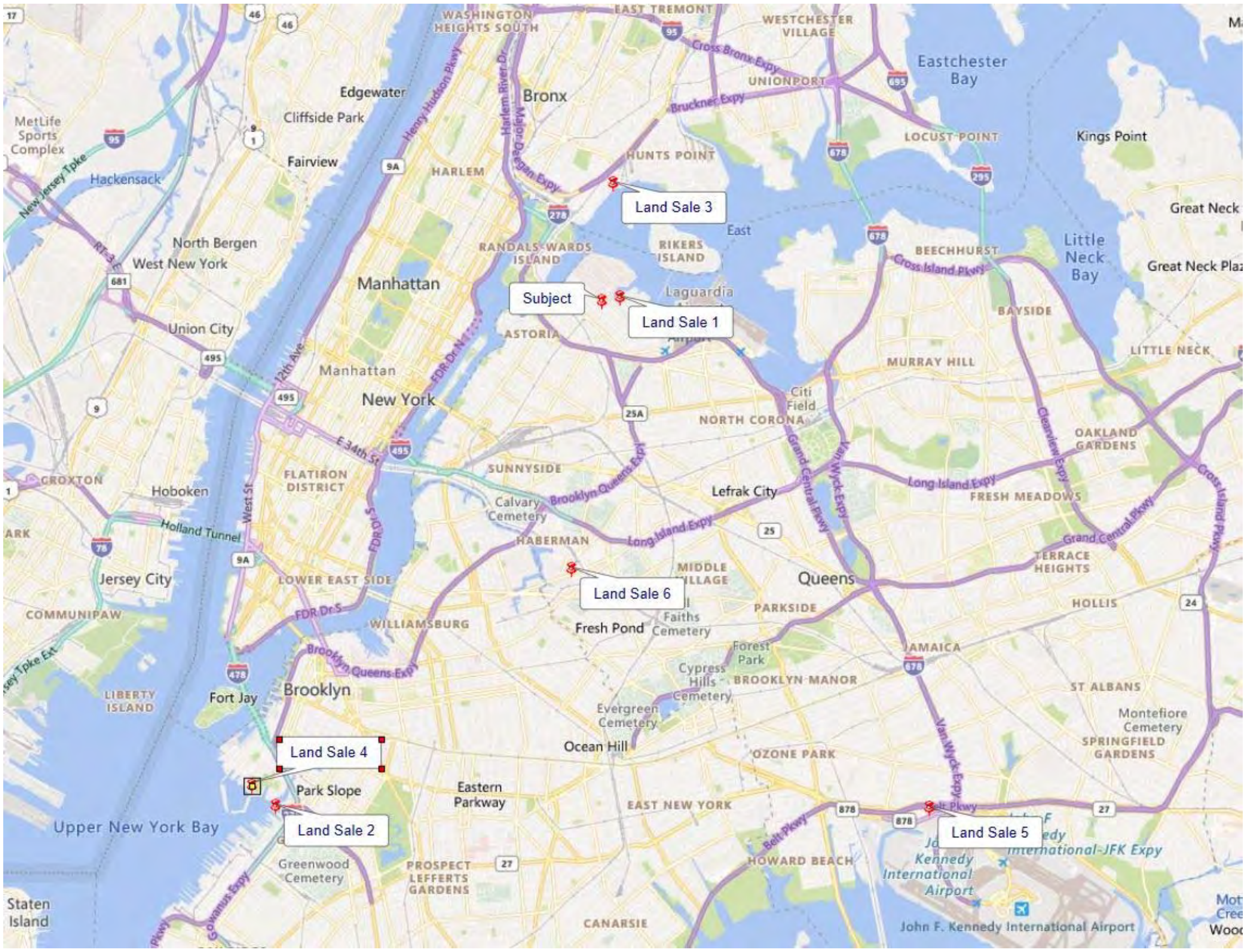
This land valuation represents the first step in determining market rent estimates for the subject site under the client's requested time frames of 7- and 20-year terms. The following chart summarizes the industrial land sales in New York City's Outer Boroughs that we consider most comparable to the subject site in terms of location, zoning and various site characteristics, with a map of the comparables and an adjustment grid to follow. Please refer to the Addenda for full sale write-up details on these comparable land sales. The most widely used and market-oriented unit of comparison for properties such as the subject is the sales price per square foot of zoning floor area.

SUMMARY OF LAND SALES							
No.	**Location**	**Size (Acres)**	**ZFA SF**	**Zoning**	**Sale Date**	**Sale Price**	**$/SF ZFA**
S	Subject Property	4.40	383,328	M3-1			
1	87 19th Avenue Astoria, NY	5.25	457,380	M3-1	6/19	$73,000,000	$160
2	Sunset Industrial Park 10-50 21st Street Brooklyn, NY	15.84	1,380,000	M3-1	1/19	$262,300,000	$190
3	980 East 149th Street Bronx, NY	10.38	904,518	M3-1	12/18	$57,050,025	$63
4	640 Columbia Street Brooklyn, NY	4.04	352,082	M3-1	2/18	$47,500,000	$135
5	13002 South Conduit Avenue Jamaica, NY	2.73	237,756	M1-2	2/18	$24,850,000	$105
6	Grand Logistics Center 56-19, 55-15 and 54-15 Grand Avenue Maspeth, NY	8.83	769,390	M3-1	1/18	$71,150,000	$92
STATISTICS							
Low		2.73	237,756		1/18	$24,850,000	$63
High		15.84	1,380,000		6/19	$262,300,000	$190
Average		7.85	683,521		8/18	$89,308,338	$124

Compiled by Cushman & Wakefield, Inc.

In addition to these sales, a 21.3-acre site at the southeast corner of the area abutting Luyster/Steinway Creek was eventually acquired by a private entity in July 2014 from ConEd for $15 million. The building improvements were subsequently demolished, with the site now being vacant (as shown in black on the page preceding last). However, this acquisition followed close to 15 years of litigation, with the sale transaction thus not considered to be indicative of market value at the time of sale.

COMPARABLE LAND SALES



LAND SALE ADJUSTMENT GRID

No.	Price/SF ZFA	Property Rights Conveyed	Conditions of Sale	Financing	Market[1] Conditions	PSF ZFA Subtotal	Location	Size	Utility[2]	Other	Adj. Price/SF ZFA	Overall
1	**$160**	Fee Simple	Arm's-Length	None	Similar	**$160**	Superior	Similar	Superior	Superior	**$112**	Superior
	6/19	0.0%	0.0%	0.0%	0.0%	0.0%	-10.0%	0.0%	-10.0%	-10.0%	-30.0%	
2	**$190**	Leased Fee	Arm's-Length	None	Inferior	**$196**	Superior	Similar	Superior	Similar	**$117**	Superior
	1/19	0.0%	0.0%	0.0%	3.0%	3.0%	-30.0%	0.0%	-10.0%	0.0%	-40.0%	
3	**$63**	Leased Fee	Arm's-Length	None	Inferior	**$65**	Inferior	Larger	Inferior	Similar	**$94**	Inferior
	12/18	0.0%	0.0%	0.0%	3.3%	3.3%	25.0%	10.0%	10.0%	0.0%	45.0%	
4	**$135**	Fee Simple	Arm's-Length	None	Inferior	**$145**	Superior	Similar	Similar	Similar	**$116**	Superior
	2/18	0.0%	0.0%	0.0%	7.7%	7.7%	-20.0%	0.0%	0.0%	0.0%	-20.0%	
5	**$105**	Fee Simple	Arm's-Length	None	Inferior	**$113**	Similar	Similar	Similar	Similar	**$113**	Similar
	2/18	0.0%	0.0%	0.0%	7.8%	7.8%	0.0%	0.0%	0.0%	0.0%	0.0%	
6	**$92**	Fee Simple	Arm's-Length	None	Inferior	**$100**	Similar	Smaller	Similar	Similar	**$90**	Superior
	1/18	0.0%	0.0%	0.0%	7.9%	7.9%	0.0%	-10.0%	0.0%	0.0%	-10.0%	
	$63	**- Low**								**Low -**	**$90**	
	$190	**- High**								**High -**	**$117**	
	$124	**- Average**								**Average -**	**$107**	

Compiled by Cushman & Wakefield, Inc.

(1) Market Conditions Adjustment Footnote

Compound annual change in market conditions: 5.00%
Date of Value (for adjustment calculations): 8/21/19

(2) Utility Footnote

Utility includes shape, access, frontage and visibility.

Land Value Conclusion

The Land Sale Adjustment Grid above summarizes various adjustments that we consider applicable in comparison to the subject site. With industrial market conditions improving significantly in New York City's Outer Boroughs the past 2+ years, we have applied a 5.0 percent annual adjustment for this factor. As shown, we consider varying degrees of downward adjustments to be applicable to Land Sales 1, 2 and 4 for their superior locations, while an upward locational adjustment is appropriate to Land Sale 3 in the Bronx and Land Sales 5 and 6 are considered similar in location.

Moderate upward and downward Size adjustments are appropriate for Land Sale 3 for respective larger and smaller site sizes on a material basis (Land Sale 2's significantly larger size is considered to have offsetting positive locational-related advantages for the project being built in a highly supply-constrained neighborhood). In terms of utility, the waterfront locations of Land Sale 1 and 2 requires moderate downward adjustments, while the irregular shape of Land Sale 3 requires an upward adjustment. Lastly, a moderate downward adjustment is appropriate for the typical owner-occupant premium paid for the site (which benefits from closer proximity to Astoria's growing movie production industry hub.

The pre-adjusted unit sale price range is from $63 to $190 per square foot of zoning floor area (ZFA). After adjustment, the sales show a tight range of $90 to $117 per ZFA square foot, averaging $107 per ZFA square foot. Based on the foregoing and more emphasis being placed on Land Sale 1 that is most recent and proximate, we have estimated the "as vacant" land value of the subject site as follows:

AS IS LAND VALUE CONCLUSION		**Price PSF**
Indicated Land Value/SF ZFA		$110.00
Land SF	191,664 SF	
ZFA SF @ 2.0 FAR	2.0	x 383,328
Indicated Value		$42,166,080
LAND VALUE CONCLUSION		**$42,000,000**
$/SF Basis		$109.57

Compiled by Cushman & Wakefield, Inc.

Income Capitalization Approach

We will now apply an "inverse capitalization" process for determining market rent for the subject's 4.4-acre site, by determining an appropriate rate-of-return to be applied to our preceding "as vacant" land value and determine a market-oriented ground rent for the subject site. We have accordingly researched the market for leased fee (ground lease) sales over the past several years to extract overall capitalization rates on acquired ground lessor positions.

Our discussions with several active investment sale brokers in New York City's Outer Boroughs indicate that ground lease transactions and any coinciding sales of such ground lessor positions are rare. Alternatively, while occurring less frequently due to the inferior marketability of split positions on land and building property interests, including financing options, ground lease positions on Manhattan properties are structured more frequently.

Ground rent is typically determined based on a factor of land value and, as interest rates have been significantly lower than historic norms for the past several years, reset rates on ground leases have declined as well. The following table summarizes Ground Lease Rent Factors (rates of return) that are applied to the land values on several Manhattan office buildings, with one 2004 transaction for a historic comparison during a higher interest rate period.

GROUND LEASE RENT FACTORS		
Initial Ground Lease Date	Address	Ground Rent Reset Factor
May-04	135 West 50th Street	6.50%
Apr-14	13 West 27th Street	5.50%
Apr-14	19 West 24th Street	5.50%
Apr-14	119 West 24th Street	5.50%
Sep-15	155 West 23rd Street	5.50%
Jan-18	321 East 61st Street	6.00%

In terms of the expense structure for a ground lease being consummated for subject site, subject ownership (New York Power Authority) as a public utility company.is exempt from real estate taxes. We have assumed that the subject's tenant would otherwise pay insurance and its minimal on-site maintenance costs.

The proposed lease term from NYPA's ground lease RFP request of 7 years, as well as a 20-year tern requested by the client, are significantly shorter than typical ground lease terms that are typically at least 50 years, plus options, and as long as 99 years. Consistent with interest rates on a historic basis with "yield curves", longer-term ground leases typically correlate to higher Ground Lease Rent Factors. However, current U.S. Treasury rates presently reflect an atypical "inverted yield curve", with higher short-term versus long-term U.S. Treasury yields for certain maturity terms as shown in the following chart from the U.S. Treasury Department.

U.S. TREASURY YIELDS

Date	1 Mo	2 Mo	3 Mo	6 Mo	1 Yr	2 Yr	3 Yr	5 Yr	7 Yr	10 Yr	20 Yr	30 Yr
08/20/19	2.05	1.96	1.94	1.89	1.72	1.50	1.44	1.42	1.49	1.55	1.84	2.04

Based on the foregoing, we consider a market-oriented Ground Rent Factor of 5.5 percent to be applicable for purposes of determining ground rent for the subject site for both a 7- and 20-year lease term.

Market Rent Conclusions

Applying our concluded Ground Lease Rent Factor of 5.5 percent to our preceding “as vacant” land value results in the following Base Ground Rent conclusion:

BASE MARKET RENT CONCLUSIONS	
As Vacant Land Value	$42,000,000
Ground Lease Rent Factor	5.5%
Base Market Rent (rounded)	$2,300,000
Lease Term (years)	7 & 20
Lease Type (reimbursements)	None
Rent Increases	2.5% per year on 7-year term and 10.0% every 5 years for 20-year term

Compiled by Cushman & Wakefield, Inc.

Assumptions and Limiting Conditions

"Report" means the appraisal or consulting report and conclusions stated therein, to which these Assumptions and Limiting Conditions are annexed.

"Property" means the subject of the Report.

"Cushman & Wakefield" means Cushman & Wakefield, Inc. or its subsidiary that issued the Report.

"Appraiser(s)" means the employee(s) of Cushman & Wakefield who prepared and signed the Report.

The Report has been made subject to the following assumptions and limiting conditions:

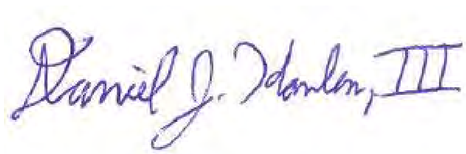
- No opinion is intended to be expressed and no responsibility is assumed for the legal description or for any matters that are legal in nature or require legal expertise or specialized knowledge beyond that of a real estate appraiser. Title to the Property is assumed to be good and marketable and the Property is assumed to be free and clear of all liens unless otherwise stated. No survey of the Property was undertaken.
- The information contained in the Report or upon which the Report is based has been gathered from sources the Appraiser assumes to be reliable and accurate. The owner of the Property may have provided some of such information. Neither the Appraiser nor Cushman & Wakefield shall be responsible for the accuracy or completeness of such information, including the correctness of estimates, opinions, dimensions, sketches, exhibits and factual matters. Any authorized user of the Report is obligated to bring to the attention of Cushman & Wakefield any inaccuracies or errors that it believes are contained in the Report.
- The opinions are only as of the date stated in the Report. Changes since that date in external and market factors or in the Property itself can significantly affect the conclusions in the Report.
- The Report is to be used in whole and not in part. No part of the Report shall be used in conjunction with any other analyses. Publication of the Report or any portion thereof without the prior written consent of Cushman & Wakefield is prohibited. Reference to the Appraisal Institute or to the MAI designation is prohibited. Except as may be otherwise stated in the letter of engagement, the Report may not be used by any person(s) other than the party(ies) to whom it is addressed or for purposes other than that for which it was prepared. No part of the Report shall be conveyed to the public through advertising, or used in any sales, promotion, offering or SEC material without Cushman & Wakefield's prior written consent. Any authorized user(s) of this Report who provides a copy to, or permits reliance thereon by, any person or entity not authorized by Cushman & Wakefield in writing to use or rely thereon, hereby agrees to indemnify and hold Cushman & Wakefield, its affiliates and their respective shareholders, directors, officers and employees, harmless from and against all damages, expenses, claims and costs, including attorneys' fees, incurred in investigating and defending any claim arising from or in any way connected to the use of, or reliance upon, the Report by any such unauthorized person(s) or entity(ies).
- Except as may be otherwise stated in the letter of engagement, the Appraiser shall not be required to give testimony in any court or administrative proceeding relating to the Property or the Appraisal.
- The Report assumes (a) responsible ownership and competent management of the Property; (b) there are no hidden or unapparent conditions of the Property, subsoil or structures that render the Property more or less valuable (no responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them); (c) full compliance with all applicable federal, state and local zoning and environmental regulations and laws, unless noncompliance is stated, defined and considered in the Report; and (d) all required licenses, certificates of occupancy and other governmental consents have been or can be obtained and renewed for any use on which the value opinion contained in the Report is based.
- The physical condition of the improvements considered by the Report is based on visual inspection by the Appraiser or other person identified in the Report. Cushman & Wakefield assumes no responsibility for the soundness of structural components or for the condition of mechanical equipment, plumbing or electrical components.
- The forecasted potential gross income referred to in the Report may be based on lease summaries provided by the owner or third parties. The Report assumes no responsibility for the authenticity or completeness of lease information provided by others. Cushman & Wakefield recommends that legal advice be obtained regarding the interpretation of lease provisions and the contractual rights of parties.

- The forecasts of income and expenses are not predictions of the future. Rather, they are the Appraiser's best opinions of current market thinking on future income and expenses. The Appraiser and Cushman & Wakefield make no warranty or representation that these forecasts will materialize. The real estate market is constantly fluctuating and changing. It is not the Appraiser's task to predict or in any way warrant the conditions of a future real estate market; the Appraiser can only reflect what the investment community, as of the date of the Report, envisages for the future in terms of rental rates, expenses, and supply and demand.
- Unless otherwise stated in the Report, the existence of potentially hazardous or toxic materials that may have been used in the construction or maintenance of the improvements or may be located at or about the Property was not considered in arriving at the opinion of value. These materials (such as formaldehyde foam insulation, asbestos insulation and other potentially hazardous materials) may adversely affect the value of the Property. The Appraisers are not qualified to detect such substances. Cushman & Wakefield recommends that an environmental expert be employed to determine the impact of these matters on the opinion of value.
- Unless otherwise stated in the Report, compliance with the requirements of the Americans with Disabilities Act of 1990 (ADA) has not been considered in arriving at the opinion of value. Failure to comply with the requirements of the ADA may adversely affect the value of the Property. Cushman & Wakefield recommends that an expert in this field be employed to determine the compliance of the Property with the requirements of the ADA and the impact of these matters on the opinion of value.
- If the Report is submitted to a lender or investor with the prior approval of Cushman & Wakefield, such party should consider this Report as only one factor, together with its independent investment considerations and underwriting criteria, in its overall investment decision. Such lender or investor is specifically cautioned to understand all Extraordinary Assumptions and Hypothetical Conditions and the Assumptions and Limiting Conditions incorporated in this Report.
- In the event of a claim against Cushman & Wakefield or its affiliates or their respective officers or employees or the Appraisers in connection with or in any way relating to this Report or this engagement, the maximum damages recoverable shall be the amount of the monies actually collected by Cushman & Wakefield or its affiliates for this Report and under no circumstances shall any claim for consequential damages be made.
- If the Report is referred to or included in any offering material or prospectus, the Report shall be deemed referred to or included for informational purposes only and Cushman & Wakefield, its employees and the Appraiser have no liability to such recipients. Cushman & Wakefield disclaims any and all liability to any party other than the party that retained Cushman & Wakefield to prepare the Report.
- Unless otherwise noted, we were not given a soil report to review. However, we assume that the soil's load-bearing capacity is sufficient to support existing and/or proposed structure(s). We did not observe any evidence to the contrary during our physical inspection of the property. Drainage appears to be adequate.
- Unless otherwise noted, we were not given a title report to review. We do not know of any easements, encroachments, or restrictions that would adversely affect the site's use. However, we recommend a title search to determine whether any adverse conditions exist.
- Unless otherwise noted, we were not given a wetlands survey to review. If subsequent engineering data reveal the presence of regulated wetlands, it could materially affect property value. We recommend a wetlands survey by a professional engineer with expertise in this field.
- Unless otherwise noted, we observed no evidence of toxic or hazardous substances during our inspection of the site. However, we are not trained to perform technical environmental inspections and recommend the hiring of a professional engineer with expertise in this field.
- Unless otherwise noted, we did not inspect the roof nor did we make a detailed inspection of the mechanical systems. The appraisers are not qualified to render an opinion regarding the adequacy or condition of these components. The client is urged to retain an expert in this field if detailed information is needed.
- By use of this Report each party that uses this Report agrees to be bound by all of the Assumptions and Limiting Conditions, Hypothetical Conditions and Extraordinary Assumptions stated herein.

Certification

We certify that, to the best of our knowledge and belief:

- The statements of fact contained in this report are true and correct.
- The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- We have no present or prospective interest in the property that is the subject of this report, and no personal interest with respect to the parties involved.
- We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
- Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the requirements of the Code of Professional Ethics & Standards of Professional Appraisal Practice of the Appraisal Institute, which include the Uniform Standards of Professional Appraisal Practice.
- The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
- Daniel J. Hanlon III, MAI did not make a personal inspection of the subject property.
- Daniel J. Hanlon III, MAI has not provided prior services, as an appraiser or in any other capacity, within the three-year period immediately preceding acceptance of this assignment.
- No one provided significant real property appraisal assistance to the persons signing this report.
- As of the date of this report, Daniel J. Hanlon III, MAI has completed the continuing education program for Designated Members of the Appraisal Institute.



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Addenda Contents

Addendum A:
Glossary of Terms & Definitions

The following definitions of pertinent terms are taken from *The Dictionary of Real Estate Appraisal*, Sixth Edition (2015), published by the Appraisal Institute, Chicago, IL, as well as other sources.

As Is Market Value

The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date. (Proposed Interagency Appraisal and Evaluation Guidelines, OCC-4810-33-P 20%)

Band of Investment

A technique in which the capitalization rates attributable to components of a capital investment are weighted and combined to derive a weighted-average rate attributable to the total investment.

Cash Equivalency

An analytical process in which the sale price of a transaction with nonmarket financing or financing with unusual conditions or incentives is converted into a price expressed in terms of cash.

Depreciation

1. In appraising, a loss in property value from any cause; the difference between the cost of an improvement on the effective date of the appraisal and the market value of the improvement on the same date. 2. In accounting, an allowance made against the loss in value of an asset for a defined purpose and computed using a specified method.

Disposition Value

The most probable price that a specified interest in real property is likely to bring under all of the following conditions:

- Consummation of a sale will occur within a limited future marketing period specified by the client.
- The actual market conditions currently prevailing are those to which the appraised property interest is subject.
- The buyer and seller is each acting prudently and knowledgeably.
- The seller is under compulsion to sell.
- The buyer is typically motivated.
- Both parties are acting in what they consider their best interest.
- An adequate marketing effort will be made in the limited time allowed for the completion of a sale.
- Payment will be made in cash in U.S. dollars or in terms of financial arrangements comparable thereto.
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Note that this definition differs from the definition of market value. The most notable difference relates to the motivation of the seller. In the case of Disposition value, the seller would be acting under compulsion within a limited future marketing period.

Exposure Time

1. The time a property remains on the market. 2. The estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based on an analysis of past events assuming a competitive and open market. See also marketing time.

Extraordinary Assumption

An assignment-specific assumption, as of the effective date regarding uncertain information used in an analysis, which, if found to be false, could alter the appraiser's opinions or conclusions.

Comment: Uncertain information might include physical, legal, or economic characteristics of the subject property; or conditions external to the property, such as market conditions or trends; or the integrity of data used in an analysis.

Fee Simple Estate

Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.

Highest and Best Use

The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.

Highest and Best Use of Property as Improved

The use that should be made of a property as it exists. An existing improvement should be renovated or retained as is so long as it continues to contribute to the total market value of the property, or until the return from a new improvement would more than offset the cost of demolishing the existing building and constructing a new one.

Hypothetical Conditions

A condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.

Comment: Hypothetical conditions are contrary to known facts about physical, legal, or economic characteristics of the subject property; or about conditions external to the property, such as market conditions or trends; or about the integrity of data used in an analysis.

Insurable Replacement Cost/Insurable Value

A type of value for insurance purposes.

Intended Use

The use or uses of an appraiser's reported appraisal, appraisal review, or appraisal consulting assignment opinions and conclusions, as identified by the appraiser based on communication with the client at the time of the assignment.

Intended User

The client and any other party as identified, by name or type, as users of the appraisal, appraisal review, or appraisal consulting report by the appraiser on the basis of communication with the client at the time of the assignment.

Leased Fee Interest

A freehold (ownership interest) where the possessory interest has been granted to another party by creation of a contractual landlord-tenant relationship (i.e., a lease).

Leasehold Interest

The tenant's possessory interest created by a lease. See also negative leasehold; positive leasehold.

Liquidation Value

The most probable price that a specified interest in real property is likely to bring under all of the following conditions:

- Consummation of a sale will occur within a severely limited future marketing period specified by the client.
- The actual market conditions currently prevailing are those to which the appraised property interest is subject.
- The buyer is acting prudently and knowledgeably.
- The seller is under extreme compulsion to sell.
- The buyer is typically motivated.
- The buyer is acting in what he or she considers his or her best interest.
- A limited marketing effort and time will be allowed for the completion of a sale.
- Payment will be made in cash in U.S. dollars or in terms of financial arrangements comparable thereto.
- The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Note that this definition differs from the definition of market value. The most notable difference relates to the motivation of the seller. Under market value, the seller would be acting in his or her own best interests. The seller would be acting prudently and knowledgeably, assuming the price is not affected by undue stimulus or atypical motivation. In the case of liquidation value, the seller would be acting under extreme compulsion within a severely limited future marketing period.

Market Rent

The most probable rent that a property should bring in a competitive and open market reflecting all conditions and restrictions of the lease agreement, including permitted uses, use restrictions, expense obligations, term, concessions, renewal and purchase options, and tenant improvements (TIs).

Market Value

As defined in the Agencies' appraisal regulations, the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus.

Implicit in this definition are the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.[1]

Marketing Time

An opinion of the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal. Marketing time differs from exposure time, which is always presumed to precede the effective date of an appraisal. (Advisory Opinion 7 of the Appraisal Standards Board of The Appraisal Foundation and Statement on Appraisal Standards No. 6, "Reasonable Exposure Time in Real Property and Personal Property Market Value Opinions" address the determination of reasonable exposure and marketing time.) See also exposure time.

Mortgage-Equity Analysis

Capitalization and investment analysis procedures that recognize how mortgage terms and equity requirements affect the value of income-producing property.

Prospective Opinion of Value

A value opinion effective as of a specified future date. The term does not define a type of value. Instead, it identifies a value opinion as being effective at some specific future date. An opinion of value as of a prospective date is frequently sought in connection with projects that are proposed, under construction, or under conversion to a new use, or those that have not yet achieved sellout or a stabilized level of long-term occupancy.

Prospective Value upon Reaching Stabilized Occupancy

The value of a property as of a point in time when all improvements have been physically constructed and the property has been leased to its optimum level of long-term occupancy. At such point, all capital outlays for tenant improvements, leasing commissions, marketing costs and other carrying charges are assumed to have been incurred.

Special, Unusual, or Extraordinary Assumptions

Before completing the acquisition of a property, a prudent purchaser in the market typically exercises due diligence by making customary enquiries about the property. It is normal for a Valuer to make assumptions as to the most likely outcome of this due diligence process and to rely on actual information regarding such matters as provided by the client. Special, unusual, or extraordinary assumptions may be any additional assumptions relating to matters covered in the due diligence process, or may relate to other issues, such as the identity of the purchaser, the physical state of the property, the presence of environmental pollutants (e.g., ground water contamination), or the ability to redevelop the property.

[1] "Interagency Appraisal and Evaluation Guidelines." Federal Register 75:237 (December 10, 2010) p. 77472.

Addendum B: Subject Data

BACK

Category(ies):

Real Property, Office, Hotel, Conferences & Meeting Space - *Consulting & Other Services*

Construction Vertical: Building Construction; Rehabilitation & New Construction - *Consulting & Other Services*

Issue Date: 08/01/2019 Contract Number: Q19-6775KK

Energy Storage Land lease

Description:

The New York Power Authority ("NYPA") is issuing this Request for Proposals ("RFP") to solicit proposals from qualified developers ("Proposers" or "Bidders") interested in leasing property for the development and construction of a new front-of-the-meter energy storage facility ("Project") that will participate in the Consolidated Edison Company of New York, Inc. The property referenced is owned by NYPA and is approximately 4.4 acres located adjacent to NYPA's existing 500MW plant on the Astoria complex in Astoria, NY.

Bidders are hereby directed to make use of the New York Power Authority's website at www.nypa.gov in order to obtain instructions on participating in the bidding process through ARIBA. Bidders obtaining bid documents from sources other than NYPA ARIBA do so at their own risk. Commensurate experience is required for this bid. Further details and requirements can be found in the bid document.

Due Date: 09/13/2019

Contract Term: 7 years

Location: 31-03 20th ave Astoria, NY 11105

Ad Type: General

Primary Contact: Power Authority of New York
WPO Procurement
Purchasing Office
Kevin King
Directo, SIte Purchasing/Warehouse
123 Main Street
White Plains, NY 10601
United States
Ph: 718-626-8288
Fax:
kevin.king@nypa.gov

Secondary contact: Power Authority of New York
WPO Procurement
Purchasing Office
Kevin King
Directo, SIte Purchasing/Warehouse
123 Main Street
White Plains, NY 10601
United States
Ph: 718-626-8288

Addendum C: Comparable Land Sales

LAND SALE COMPARABLE 1

87 19th Avenue
Astoria NY 11105
MSANew York
QueensCounty

Submarket:	N/A
Property Type:	Land
Property Subtype:	Industrial
Classification:	N/A
ID:	478374
Tax Number(s):	N/A

PROPERTY INFORMATION

Site Area (Acres):	5.2500	Public Utilities:	All Available
Site Area (Sq.Ft.):	228,690	Electricity:	N/A
Zoning:	M3-1	Water:	N/A
Utility:	N/A	Sewer:	N/A
Access:	N/A	Gas:	N/A
Frontage:	N/A	Proposed Use:	N/A
Visibility:	N/A	Maximum FAR:	2.00
Shape:	Rectangular	Potential Building Area:	457,380
Topography:	Gently Sloping	Potential Units:	N/A

SALE INFORMATION

Status:	N/A	Price per Sq.Ft.:	$319.21
Sale Date:	6/2019	Price per Acre:	$13,904,762
Sale Price:	$73,000,000	Sale Price per Potential Building	$159.60
Value Interest:	Fee Simple	Price per Potential Units:	N/A
Grantor:	Steinway & Sons		
Grantee:	Wildflower		
Financing:	N/A		
Condition of Sale:	N/A		

VERIFICATION COMMENTS

Knowledgeable third parties

COMMENTS

Contract of sale for a 5.25-acre portion of an 11-acre site located in the north Astoria neighborhood of Queens, abutting the Luyster Creek that separates the neighborhood from waterfront power plants to the west. The buyer, (JV of Robert DeNiro, Jane Rosenthal and the Wildflower Group) intends to construct a $425 million, 600,000 square foot, multi-story production studio on the site. The seller is the piano manufacturer Steinway & Sons. The contract price is reportedly for $73 million, or $160 per square foot of maximum zoning floor area (457,380 SF). The contract is expected to close by year-end 2019.

Sunset Industrial Park
10-50 21st Street
Brooklyn NY 11232
MSANew York
KingsCounty

Submarket:	N/A
Property Type:	Land
Property Subtype:	Industrial
Classification:	N/A
ID:	432650
Tax Number(s):	Block 635, Lot 13

PROPERTY INFORMATION

Site Area (Acres):	15.8400	Public Utilities:	All Available
Site Area (Sq.Ft.):	689,990	Electricity:	N/A
Zoning:	M3-1	Water:	N/A
Utility:	Good	Sewer:	N/A
Access:	N/A	Gas:	N/A
Frontage:	N/A	Proposed Use:	Industrial
Visibility:	N/A	Maximum FAR:	2.00
Shape:	Irregular	Potential Building Area:	1,380,000
Topography:	Level	Potential Units:	N/A

SALE INFORMATION

Status:	Recorded Sale	Price per Sq.Ft.:	$380.15
Deed Reference:	CRFN 2019000029592	Price per Acre:	$16,559,343
Sale Listing Date:	1/2019	Sale Price per Potential Building	$190.07
Sale Price:	$262,300,000	Price per Potential Units:	N/A
Value Interest:	Leased Fee		
Grantor:	601 Sunset Owner, LLC		
Grantee:	Bridge Development Partners		
Financing:	N/A		
Condition of Sale:	Arm's Length		

VERIFICATION COMMENTS

Public Records;CRFN 2019000029592

COMMENTS

This 15.54-acre waterfront development site was formerly known as the Sunset Industrial Park, being located along the Gowanus Bay between 19th and 22nd Streets in the Sunset Park Neighborhood of Brooklyn. The site comprises 1,900 feet of water frontage along the Gowanus Canal and is is currently improved with 18 industrial buildings totaling about 292,886 square feet of gross building area. The current owners acquired the property in 2013 for $125,500,000. The prospective buyer, Dov Hertz, has proposed to develop the site with approximately 1.6 million square feet including a proposed multi-story warehouse distribution hub that is anticipating on capitalizing the demand for last mile type distribution centers. The overall purchase price, inclusive of demolition costs estimated at $25 per square foot of GBA ($7.3mm) equates to $257,300,000. It should be noted that the development site was encumbered by leases totaling approximately 90 percent of the rentable area through April 2020 and December 2020, respectively. Any redevelopment of the site must consider the remaining leases. According to a recent news article, the developers plan on demolishing the existing structures on the pr

980 East 149th Street
Bronx NY

Submarket:	N/A
Property Type:	Land
Property Subtype:	Industrial
Classification:	N/A
ID:	445849
Tax Number(s):	Block 2599, Lot 87

PROPERTY INFORMATION

Site Area (Acres):	10.3825	Public Utilities:	All Available
Site Area (Sq.Ft.):	452,259	Electricity:	N/A
Zoning:	M3-1	Water:	N/A
Utility:	N/A	Sewer:	N/A
Access:	N/A	Gas:	N/A
Frontage:	N/A	Proposed Use:	Industrial
Visibility:	N/A	Maximum FAR:	2.00
Shape:	Irregular	Potential Building Area:	904,518
Topography:	Level	Potential Units:	N/A

SALE INFORMATION

Status:	Recorded Sale	Price per Sq.Ft.:	$126.14
Deed Reference:		Price per Acre:	$5,494,825
Sale Date:	12/2018	Sale Price per Potential Building	$63.07
Sale Price:	$57,050,025	Price per Potential Units:	N/A
Value Interest:	Leased Fee		
Grantor:	Con Ag Recycling Real Estate, LLC		
Grantee:	980 East Property, LLC, c/o Turnbridge Equities		
Financing:	Cash to Seller		
Condition of Sale:	Arm's Length		

VERIFICATION COMMENTS

Buyer Representative (Ryan Nelson) and Public Record

COMMENTS

This 10.4-acre industrial site was placed under contract in April 2018 and closed near year-end 2018, being located in close proximity to the waterfront in the Hunts Point neighborhood of the South Bronx. The property was leased primarily by a recycling business with minimal improvements and about 6 years of remaining lease term, as well as a crane parts company for about 10 percent of the site. The original asking rent on the land was $2.4 million, triple net, equating to $5.40 per square foot of land area. The buyer plans short- to intermediate-term lease buyouts and development of a vertical warehouse serving the "last mile" distribution market, targeting tenants in the food-distribution and wholesale businesses supplying the nearby Hunts Point Produce Market and Food Distribution Center (the largest such facility in the world). While being partially encumbered by easements relating mostly to railroads, most have been vacated and no adverse-impacting value was reported by the buyer. The irregularly-shaped site has about 600' frontage on East 149th Street, with excellent vehicular access via a nearby interchange for the Bruckner Expressway/Interstate 278. The site's M3-1 di

LAND SALE COMPARABLE 4

640 Columbia Street
Brooklyn NY 11231-1914
MSANew York
KingsCounty

Submarket:	N/A
Property Type:	Land
Property Subtype:	N/A
Classification:	N/A
ID:	431646
Tax Number(s):	Block 612, Lot 99

PROPERTY INFORMATION

Site Area (Acres):	4.0400	Public Utilities:	All Available
Site Area (Sq.Ft.):	175,982	Electricity:	N/A
Zoning:	M3-1	Water:	N/A
Utility:	Good	Sewer:	N/A
Access:	N/A	Gas:	N/A
Frontage:	N/A	Proposed Use:	Industrial
Visibility:	N/A	Maximum FAR:	2.00
Shape:	Rectangular	Potential Building Area:	352,082
Topography:	Level	Potential Units:	N/A

SALE INFORMATION

Status:	Recorded Sale	Price per Sq.Ft.:	$269.91
Deed Reference:		Price per Acre:	$11,757,426
Sale Date:	2/2018	Sale Price per Potential Building	$134.91
Sale Price:	$47,500,000	Price per Potential Units:	N/A
Value Interest:	Fee Simple		
Grantor:	Columbia/Halleck, LLC C/O 601 West Company, LLC		
Grantee:	640 Columbia Owner, LLC, C/O Goldman Sachs and DH		
Financing:	N/A		
Condition of Sale:	Arm's Length		

VERIFICATION COMMENTS

Public records; CRFN 2018000059119

COMMENTS

This rectangular-shaped industrial development site is located in south Brooklyn's Red Hook waterfront industrial neighborhood and is being developed on a speculative basis with a 3-level warehouse to total 336,500 square feet. The site is adjacent to an IKEA home furnishing store, with close proximity to interchanges for Interstates 278 and 478, while Red Hook is not served by NYC's extensive subway lines. The site was previously utilized by a construction company, with miscellaneous small buildings that presumably did not require significant demolition costs (with site also assumed to be environmentally clean). The seller had acquired the property in January 2014 for $21,000,000.

LAND SALE COMPARABLE 5

13002 South Conduit Avenue
Jamaica NY 11430
MSANew York
QueensCounty

Submarket:	N/A
Property Type:	Land
Property Subtype:	Industrial
Classification:	N/A
ID:	392390
Tax Number(s):	Block 11884, Lots 150, 160, 170 & 180

PROPERTY INFORMATION

Site Area (Acres):	2.7290	Public Utilities:	All Available
Site Area (Sq.Ft.):	118,878	Electricity:	N/A
Zoning:	M1-2	Water:	N/A
Utility:	Good	Sewer:	N/A
Access:	Good	Gas:	N/A
Frontage:	N/A	Proposed Use:	Industrial
Visibility:	N/A	Maximum FAR:	2.00
Shape:	N/A	Potential Building Area:	237,756
Topography:	N/A	Potential Units:	N/A

SALE INFORMATION

Status:	Recorded Sale	Price per Sq.Ft.:	$209.04
Deed Reference:	CRFN 2018000050568	Price per Acre:	$9,105,900
Sale Date:	2/2018	Sale Price per Potential Building	$104.52
Sale Price:	$24,850,000	Price per Potential Units:	N/A
Value Interest:	Fee Simple		
Grantor:	CFS 2907 JFK, LLC		
Grantee:	South Conduit Prop Owner, LLC		
Financing:	Cash to Seller		
Condition of Sale:	Arm's Length		

VERIFICATION COMMENTS

Selling Broker, Public Record CRFN 2018000050568

COMMENTS

This 2.73-acre site near JFK Airport in South Ozone Park was utilized at sale as an airport parking lot, with excellent access to a nearby interchange of the Belt Parkway. Site frontages included 498' on South Conduit Avenue with two corners and frontages of 215' and 300' on 130th and 131st Streets. Maximum "by-right" FAR density within its M1-2 zoning district is 2.0 and the buyer plans to "upzone" with the first facility of its kind in New York City's five boroughs: a three-level, multi-tenanted air cargo and distribution facility of 300,000 square feet. Floors one and two will serve as an industrial area, including space to accommodate full-sized shipping trailers. Access to the building will be via ramps, which will direct vehicles to either floor and allow them to enter so they can dock, load, and unload directly at their destination.

Grand Logistics Center
56-19, 55-15 and 54-15 Grand Avenue
Maspeth NY 11378
MSANew York
QueensCounty

Submarket:	N/A
Property Type:	Land
Property Subtype:	Industrial
Classification:	N/A
ID:	483652
Tax Number(s):	Block 2610, Lots 305, 336 & 357

PROPERTY INFORMATION

Site Area (Acres):	8.8314	Public Utilities:	All Available
Site Area (Sq.Ft.):	384,695	Electricity:	N/A
Zoning:	M3-1	Water:	N/A
Utility:	N/A	Sewer:	N/A
Access:	N/A	Gas:	N/A
Frontage:	N/A	Proposed Use:	Industrial
Visibility:	N/A	Maximum FAR:	2.00
Shape:	N/A	Potential Building Area:	769,390
Topography:	Level	Potential Units:	N/A

SALE INFORMATION

Status:	Closed Sale	Price per Sq.Ft.:	$184.95
Sale Date:	1/2018	Price per Acre:	$8,056,480
Sale Price:	$71,150,000	Sale Price per Potential Building	$92.48
Value Interest:	Fee Simple	Price per Potential Units:	N/A
Grantor:	Cascade Holdings, US, Inc.		
Grantee:	RXR Realty & LBA Logistics		
Financing:	N/A		
Condition of Sale:	Arm's Length		

VERIFICATION COMMENTS

Deed

COMMENTS

These three adjoining sites are situated in an industrial area of the Maspeth neighborhood of Queens, in the southeast quadrant area of Interstates 495 and 278 to the south of Long Island City. A single-story warehouse of 71,000 square feet with 21' ceilings will be retained, while two buildings of 1- to 3-stories totaling about 250,000 square feet are planned for demolition and redevelopment.   Besides excellent highway access, the site is about 5 and 10 miles from LaGuardia Airport and JFK International Airport, respectively.   The effective sale price reflects the actual sale price of $72 million, plus the demolition costs of the two buildings of $6.25 million, less the contributory value of $7.1 million, or $100/SF, for the building shell of the 71,000 SF warehouse being retained. The buyers plan to build a "vertical warehouse" of four stories, totaling about 700,000 square feet, to be known as Grand Logistics Center.

Addendum D: Qualifications of the Appraiser

Daniel J. Hanlon III, MAI Director

Valuation & Advisory
Cushman & Wakefield, Inc.

Professional Expertise

Daniel J. Hanlon III has almost three decades of commercial real estate appraisal/consulting experience throughout the Mid-Atlantic/ Northeast region of the United States on all types of commercial property, including office, retail, multi-family, industrial, hospitality and recreational (including significant experience with vacant land/redevelopment for proposed projects). Prior appraisal/consulting experience includes with CB Richard Ellis and Integra Realty Resources during 10 years in New York City, as well as 10 years in Washington, DC with regional firm RCDH & Company and 7 years in Philadelphia, including with Legg Mason Real Estate. Mr. Hanlon also has five years of financial and project analysis for acquisitions, financing and asset management with investment/development company Berwind Property Group in Philadelphia and due diligence real estate experience for initial Public Offerings (IPO's) on REIT's at Legg Mason.

Mr. Hanlon's client base served on a wide variety of appraisal and consulting assignments include pension funds, insurance companies, Wall Street investment banks, financial institutions/banks, special servicing providers, law firms for both litigation and estate matters, government entities, developers, private owners and investment groups. Mr. Hanlon has also appeared as an expert witness in Washington, DC superior court.

Memberships, Licenses, Professional Affiliations and Education

- Designated Member, Appraisal Institute. As of the current date, Daniel J. Hanlon III, MAI has completed the requirements of the continuing education program of the Appraisal Institute.
- Certified General Real Estate Appraiser in the following states:
  - New Jersey – 42RG00233000
  - New York – 46000047703
- Member, Real Estate Services Alliance (resanyc.com)
- Master of Business Administration (MBA), Concentration in Real Estate & Urban Land Studies, Temple University
- Bachelor of Science, Accounting & Finance Major, Drexel University

NEW JERSEY

THIS DOCUMENT IS PRINTED ON WATERMARKED PAPER, WITH A MULTI-COLORED BACKGROUND AND MULTIPLE SECURITY FEATURES. PLEASE VERIFY AUTHENTICITY.

State Of New Jersey
New Jersey Office of the Attorney General
Division of Consumer Affairs

THIS IS TO CERTIFY THAT THE
Real Estate Appraisers Board

HAS CERTIFIED

Daniel J. Hanlon III
Cushman & Wakefield
1290 Avenue of the Americas, 9th Floor
New York NY 10104

FOR PRACTICE IN NEW JERSEY AS A(N): Certified General Appraiser

01/05/2018 TO 12/31/2019
VALID

42RG00233000
LICENSE/REGISTRATION/CERTIFICATION #

Signature of Licensee/Registrant/Certificate Holder

ACTING DIRECTOR

NEW YORK

UNIQUE ID NUMBER
46000047703

State of New York
Department of State
DIVISION OF LICENSING SERVICES

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PURSUANT TO THE PROVISIONS OF ARTICLE 6E OF THE EXECUTIVE LAW AS IT RELATES TO R. E. APPRAISERS.

EFFECTIVE DATE
MO. 03 DAY 26 YR. 19

EXPIRATION DATE
MO. 03 DAY 25 YR. 21

HANLON DANIEL J III
C/O CUSHMAN & WAKEFIELD
1290 AVENUE OF THE AMERICAS
FL 9
NEW YORK, NY 10104

HAS BEEN DULY CERTIFIED TO TRANSACT BUSINESS AS A R. E. GENERAL APPRAISER

In Witness Whereof, The Department of State has caused its official seal to be hereunto affixed.
ROSSANA ROSADO
SECRETARY OF STATE

DOS-1098 (Rev. 3/01)