

**A. INTRODUCTION AND SUMMARY OF FINDINGS**

Electricity and gas service to the Project Sites is provided by Con Edison. Con Edison has confirmed that the existing electrical and gas utility infrastructure does not have capacity to serve the new proposed energy demand (i.e., loads) and would require improvements. With these improvements, and the energy savings from adherence of the Proposed Project to New York State Building and Energy Codes and the Yonkers Green Development Standards, the Proposed Project is not anticipated to have an adverse impact on the electricity and gas service or the associated infrastructure.

**B. EXISTING CONDITIONS**

Electricity and gas service to the Project Sites is provided by Con Edison. Existing conditions of the electricity and gas service and infrastructure is provided for each Project Site below. There is currently a moratorium on new, uninterruptible natural gas service in downstate New York. This means that if new gas service is provided to a site, Con Edison may require the customer to stop using natural gas when the system is operating at peak conditions (i.e., very cold days). Interruptible systems often have a backup fuel source to allow for this interruption. There is no moratorium on new electric connections.

**B.1. TEUTONIA SITE**

At the Teutonia Site, electric service along Buena Vista Avenue is provided by Con Edison through underground and overhead electrical lines located within the right-of-way. Con Edison also provides natural gas service to the Site through an underground pipe in Buena Vista Avenue.

**B.2. CHICKEN ISLAND SITE**

Con Edison provides electric and natural gas services to the Chicken Island Site. The distribution systems are generally located within the City street right-of-way. Both utilities are located under the surrounding streets with distribution lines in John and James Streets as well.

**B.3. NORTH BROADWAY SITE**

Con Edison provides electric and natural gas services to the North Broadway Site. The distribution systems are generally located within the City street right-of-way. Both 4- and 6-inch gas mains and an underground electrical conduit are located in North Broadway.

**C. FUTURE WITHOUT THE PROPOSED PROJECT**

In the Future Without the Proposed Project, Con Edison plans to install 2,600 feet of 12-inch gas piping along Main Street and South Broadway between the intersection of Warburton Avenue and Main Street and the intersection of South Broadway and Park Hill Avenue (see **Appendix K-1**). The work is being conducted as part of Con Edison’s main replacement program job number GA17W06 to upgrade the system to a high-pressure system to improve conditions within the area. It is scheduled to be completed by September 2022. Future development without the Proposed Project would continue to be subject to the natural gas moratorium and interruptible service.

**D. FUTURE WITH THE PROPOSED PROJECT (BUILD CONDITION)**

The anticipated electric and gas demands, and the required infrastructure improvements to meet that demand, are discussed below. Con Edison has confirmed that the existing electrical and gas utility infrastructure does not have capacity to serve the Proposed Project without various upgrades. The Applicant has coordinated with Con Edison via email, teleconference, and submission of load letters to evaluate the existing infrastructure to determine the improvements that would be necessary (see **Appendix K-1**). At this time, it is not anticipated that any existing overhead electric cables would be converted to underground electric cables. With the implementation of these improvements, and adherence to New York State Building and Energy Codes and Yonkers Green Development Standards, the Proposed Project would not be expected to result in adverse impacts to the local electric or natural gas services.

Due to the current natural gas moratorium in the downstate New York region, the Proposed Project would include an interruptible gas service for any buildings that are constructed before the moratorium is lifted. The backup fuel source for the Proposed Project would be heating oil. This fuel would only be used when Con Edison requires that the Proposed Project stop using natural gas in times of severe network strain.

**D.1. TEUTONIA PROJECT**

The Teutonia Project would require two electric service connections. The anticipated electrical demand load for the Teutonia Project is 10.4 megawatts (MW). **Table 10-1** provides anticipated electrical demand per building for the Teutonia Project.

**Table 10-1**  
**Anticipated Electrical Demand for the Teutonia Project**

Stage	Number of Floors		Electrical Load (MW)	
	Above Grade	Below Grade	Connected	NEC Demand
1	41	3	18.0	6.0
2	41	3	13.2	4.4
<b>Total</b>			<b>31.2</b>	<b>10.4</b>
<b>Notes:</b> MW = megawatts, NEC = National Electrical Code				
<b>Source:</b> Load calculations provided by Stantec on September 14, 2021.				

To serve this anticipated load, Con Edison would need to install three 2500 kilovolt-ampere (kVA) underground network transformers, which would be placed under the sidewalk between Buena Vista Avenue and the proposed building. The voltage service would be 277/480 volts (V). In coordination with Con Edison, the Applicant would install the transformer vaults. Con Edison would be responsible for installing the transformers, network protectors, and service cables to the customer point of entry. Con Edison’s

electrical service ruling letters, included in **Appendix K-1**, indicate that existing underground electric cable between Marco Avenue and Kingston Avenue and Yonkers Avenue and Walnut Street would need to be upgraded to handle the additional load.

The Teutonia Project would require two natural gas service connections. The anticipated gas demand for the Teutonia Project is 158,360 thousand British thermal units per hour (MBH). **Table 10-2** provides anticipated natural gas demand and generator size for the Teutonia Project.

**Table 10-2  
Anticipated Natural Gas Demand and  
Generator Size for the Teutonia Project**

Stage	Number of Floors		Generator	Gas Load (MBH)
	Above Grade	Below Grade		
1	41	3	750kW Gas	89,730
2	41	3	750kW Gas	68,630
<b>Total</b>				<b>158,360</b>
<b>Notes:</b> MBH = thousand British thermal units per hour, kW = kilowatts				
<b>Source:</b> Load calculations provided by Stantec on September 14, 2021.				

To serve the Teutonia Project, Con Edison would upgrade 380 feet of 6-inch gas piping on Hudson Street, between Hawthorne Avenue and 49 Buena Vista Avenue, from low pressure to high pressure. In addition, to serve both the Teutonia Project and North Broadway Project, Con Edison would install 2,600 feet of 12-inch gas piping on Main Street and South Broadway between the intersection of Warburton Avenue and Main Street and the intersection of South Broadway and Park Hill Avenue. The infrastructure on Main Street and South Broadway would be upgraded as part of Con Edison’s existing main replacement program and would occur with or without the Proposed Project (see **Appendix K-1**).

**D.2. CHICKEN ISLAND PROJECT**

The Chicken Island Project would require one electric service connection per building. The anticipated electrical demand load for the Chicken Island Project is 21.7 MW (see **Table 10-3**).

**Table 10-3  
Anticipated Electrical Demand for the Chicken Island Project**

Stage	Number of Floors		Electrical Load (MW)	
	Above Grade	Below Grade	Connected	NEC Demand
1	38	3	20.5	6.7
2	23	2	13.1	4.0
3	38	2	14.0	4.8
4	23	1	8.6	3.0
5	26	2	8.8	3.2
<b>Total</b>			<b>65.0</b>	<b>21.7</b>
<b>Notes:</b> MW = megawatts, NEC = National Electrical Code				
<b>Source:</b> Load calculations provided by Stantec on September 14, 2021.				

To serve this anticipated load, Con Edison would install two isolated networks. For Stages 1 through 4, Con Edison would install four 2500 kVA underground network transformers

along Palisade Avenue. The voltage service would be 277/480 V for Stages 1 through 4. For Stage 5, Con Edison would install two 1000 kVA underground network transformers along New School Street. The voltage service for Stage 5 would be 120/208 V. The building transformers would be under the sidewalk between the roadway and the front of the buildings. In coordination with Con Edison, the Applicant would install six transformer vaults (four for Stages 1 through 4 and two for Stage 5). Con Edison would be responsible for installing the transformers, network protectors and service cables to the customer point of entry. Con Edison’s electrical service ruling letters, included in **Appendix K-1**, provide additional detail regarding underground and overhead cable infrastructure work. These improvements would be coordinated with the improvements required for the North Broadway Project. As stated in **Appendix K-1**, existing underground cable along Yonkers Avenue, between Midland Avenue and Oak Street, would require upgrades. In addition, a connection cable between the Dunwoodie-Granite Hill Substation to Kingston Avenue would need to be upgraded, as would overhead cable along Ludlow Street from Fernbrook Street to Riverdale Avenue. In addition, and also to serve the North Broadway Project, existing underground cable from the Dunwoodie-Granite Hill substation to Lockwood Avenue and Saw Mill River Road and from there to Nepperhan Avenue and Ingram Street would require upgrades. Overhead cable from Lockwood Avenue and Saw Mill River Road to Nepperhan Avenue and Ingram Street and aerial cable along Lockwood Avenue from Saw Mill River Road to Lennon Avenue would also require upgrades. It is not known at this time whether, and to what extent, street openings would be required to effectuate the underground electric installation or whether the new and upgraded cables can be installed through existing manholes and other street openings. With respect to above-ground cables, some of the required improvements would include running new cable, while other improvements would consist of replacing existing cable with higher capacity cable.

The Chicken Island Site would also require one natural gas service connection per building. The anticipated gas demand for the Chicken Island Project is 342,641 MBH. **Table 10-4** provides anticipated natural gas demand and generator size per building for the Chicken Island Project.

**Table 10-4**  
**Anticipated Natural Gas Demand and Generator Size**  
**for the Chicken Island Project**

Stage	Number of Floors		Generator	Gas Load (MBH)
	Above Grade	Below Grade		
1	38	3	750kW Gas	103,990
2	23	2	600kW Gas	71,682
3	38	2	750kW Gas	74,940
4	23	1	600kW Gas	45,842
5	26	2	600kW Gas	46,187
<b>Total</b>				<b>342,641</b>
<b>Notes:</b> MBH = thousand British thermal units per hour, kW = kilowatts				
<b>Source:</b> Load calculations provided by Stantec on September 14, 2021.				

Together with other planned projects in the area, Con Edison has the need to, and will be doing independently, an upgrade of the natural gas service in the area of Chicken Island to high pressure (see **Appendix K-1**). As a result, the Chicken Island Project would only

need to install gas service connections from the property line to each building’s point of entry, pending a final Con Edison determination and building connection locations.

**D.3. NORTH BROADWAY PROJECT**

The North Broadway Project would require one electric service connection per building. The anticipated electrical demand load for the North Broadway Project is 7.1 MW (see **Table 10-5**).

**Table 10-5  
Anticipated Electrical Demand for the North Broadway Project**

Stage	Number of Floors		Electrical Load (MW)	
	Above Grade	Below Grade	Connected	NEC Demand
1	23	3	10.9	3.7
2	23	3	10.5	3.4
<b>Total</b>			<b>21.4</b>	<b>7.1</b>
<b>Notes:</b> MW = megawatts, NEC = National Electrical Code				
<b>Source:</b> Load calculations provided by Stantec on September 14, 2021.				

To serve this anticipated load, Con Edison would install three 1000 kVA underground network transformers along North Broadway. The voltage service would be 120/208 V. The building transformers would be under the sidewalk between North Broadway and the front of the buildings. In coordination with Con Edison, the Applicant would install three transformer vaults. Con Edison would be responsible for installing the transformers, network protectors and service cables to the customer point of entry. Con Edison’s electrical service ruling letters, included in **Appendix K-1**, provide additional detail regarding underground and overhead cable infrastructure work. Specifically, the work described above for Chicken Island would also serve the North Broadway Project.

The North Broadway Project would require one natural gas service connection per building. The anticipated natural gas demand for the North Broadway Project is 107,844 MBH. **Table 10-6** provides anticipated natural gas demand and generator size per building for the North Broadway Project.

**Table 10-6  
Anticipated Natural Gas Demand and Generator Size  
for the North Broadway Project**

Stage	Number of Floors		Generator	Gas Load (MBH)
	Above Grade	Below Grade		
1	23	3	600kW Gas	53,282
2	23	3	600kW Gas	54,562
<b>Total</b>				<b>107,844</b>
<b>Notes:</b> MBH = thousand British thermal units per hour, kW = kilowatts				
<b>Source:</b> Load calculations provided by Stantec on September 14, 2021.				

To serve the North Broadway Project, Con Edison would install 550 feet of 12-inch gas piping on Warburton Avenue and Manor House Square as well as 70 feet of 8-inch gas piping on North Broadway between Manor House Square and the point of service to the Site. In addition, to serve both the North Broadway Project and Teutonia Project, Con Edison would be required to install 2,600 feet of 12-inch gas piping on Main Street and

South Broadway between the intersection of Warburton Avenue and Main Street and the intersection of South Broadway and Park Hill Avenue. This gas infrastructure work would be completed as part of Con Edison main replacement program job number GA17W06 (see **Appendix K-1**) and would be completed with or without the Proposed Project.

**D.4. PROPOSED ENERGY CONSERVATION MEASURES**

The Proposed Project has been designed as a sustainable development using energy reducing design features that would reduce long-term operational energy use. As discussed in Chapter 16, “Sustainability,” the Proposed Project has been designed in accordance with New York State Building and Energy Codes and the Yonkers Green Development Standards. Specifically, the heating, cooling, hot water, lighting, and appliance efficiencies for the buildings throughout the Proposed Project have been designed to perform at least 15 percent better than American Society of Heating, Refrigerating and Air-Conditioning Engineers standard 90.1-2010. Appliances used in the Proposed Project would meet ENERGY STAR requirements, which are strict energy-efficiency criteria set by the EPA. The Proposed Project would comply with the ENERGY STAR Multifamily High Rise program guidelines, which require that 80 percent of installed fixtures within individual units be ENERGY STAR qualified or have ENERGY STAR qualified lamps installed. The ENERGY STAR standard would carry through to common area lighting as well. Lighting controls would be designed to comply with the 2020 Energy Conservation Code of New York State (which adopts the 2018 International Energy Conservation Code with amendments). Exterior fixtures would also be ENERGY STAR qualified or LED lights and would be full cut-off “Dark Sky” approved fixtures.

Additional energy savings measures would be explored as building design progresses during site plan review. In addition, the Applicant will investigate the potential for incorporating renewable energy generation at one or more of the Project Sites as detailed design plans progress, including potential photovoltaic panel, wind turbine, and geothermal generation.

**E. MITIGATION MEASURES**

No mitigation measures are proposed. \*