A. INTRODUCTION

According to the 2014 City Environmental Quality Review (CEQR) Technical Manual, a solid waste and sanitation services assessment is intended to determine whether a project has the potential to cause a substantial increase in solid waste production. Such an increase may overburden available waste management capacity or otherwise be inconsistent with the City's Solid Waste Management Plan (SWMP) or with State policy.

As described in greater detail in Chapter 1, "Projection Description," the Proposed Project is a commercial center with associated parking, open space, and street and infrastructure improvements. This chapter calculates the Proposed Project's solid waste generation potential based on standard waste generation rates provided in the *CEQR Technical Manual* and examines the Proposed Project's potential effects on solid waste and sanitation services.

PRINCIPAL CONCLUSIONS

The Proposed Project would generate an estimated 187,992 pounds (approximately 94 tons) per week of solid waste (including recyclables), which would be entirely handled by commercial carters and would require no use of City sanitation services. This volume represents a negligible increment relative to the approximately 26 million pounds (13,000 tons) of waste (including recyclables) handled by commercial carters in New York City every day. The Proposed Project would not result in an increase in solid waste that would overburden available waste management capacity. It would also not conflict with, or require any amendments to, the City's solid waste management objectives as stated in the SWMP. Therefore, the Proposed Project would not result in a significant adverse impact on solid waste and sanitation services.

B. EXISTING CONDITIONS

CURRENT SOLID WASTE SANITATION SERVICES

Solid waste management services in New York City are guided by the SWMP, which was prepared by the New York City Department of Sanitation (DSNY) and adopted by the City Council in 2006. The SWMP takes into account the objectives of New York State's solid waste management policy with respect to the preferred hierarchy of waste management methods: first waste reduction, then recycling, composting, resource conservation and energy production, and, lastly, landfill disposal. The SWMP includes initiatives and programs for waste minimization, reuse, recycling, composting, siting a new waste conversion facility to derive energy from waste, waste transfer, transport, and out-of-city disposal at waste-to-energy facilities and landfills.

In accordance with the SWMP, and with DSNY's responsibilities under the City Charter, DSNY handles all residential and institutional refuse in the city. DSNY collects approximately 12,260 tons per day (tpd) of refuse and recyclables, of which approximately 1,760 tons are recycled.

Solid waste from commercial and manufacturing uses is collected by private carters, which handle another 13,000 tpd of recyclables and mixed municipal solid waste (MSW). Commercial carters transport the MSW to transfer stations and recyclables to recycling facilities. At the transfer stations, MSW is consolidated into larger trucks or rail cars and transported to landfills or waste-to-energy facilities outside of New York City for disposal. Private carters also collect other waste such as mixed construction and demolition debris and dirt, rock, and masonry waste and deliver it to construction and demolition debris processing facilities where clean fill and other items of value are separated out for recycling and the residue is transferred to trucks, rail cars, or barges and sent for disposal. The SWMP includes solid waste transfer stations and special problem waste collection sites in each borough, as well as certain composting facilities, recycling facilities and private transfer stations.

New York City's Recycling Law requires that both DSNY and commercial carters collect certain designated recyclable materials and deliver them to material recovery facilities for sorting and recycling. New York City residents are required to separate recyclable aluminum foil, glass, plastic and metal containers, newspapers, and other paper wastes from other household waste for separate collection by DSNY. Commercial entities are also required to separate recyclables for collection by private carters. Businesses are required to source-separate certain types of paper, cardboard, metal, and construction wastes. Food and beverage establishments must separate these same wastes, as well as metal, glass and plastic containers, and aluminum foil.

The SWMP also proposes the following three broad categories of action to address traffic issues associated with commercial waste handling: (1) improve conditions at and around transfer stations through stricter operating rules; (2) use DSNY marine transfer stations and procurements to facilitate a transition from a commercial waste system highly reliant on trucks to one that relies increasingly on barge and rail; and (3) reduce private transfer station capacity in the four community districts that currently absorb the largest proportion of the system's impacts.

SOLID WASTE GENERATION

For this analysis, projected solid waste generation for the Proposed Project was calculated using the standard waste generation rates in Table 14-1 of the *CEQR Technical Manual*.² As discussed in Chapter 1, "Project Description," the Project Site currently contains one single-family house, which is expected to remain in the No Action condition. For the purposes of this analysis, the existing house is assumed to not produce any solid waste.

C. THE FUTURE WITHOUT THE PROPOSED PROJECT

Absent the Proposed Project, no new development is anticipated to occur on the Project Site, and the site will continue to produce no solid waste.

-

¹ About DSNY:http://www1.nyc.gov/assets/dsny/about/inside-dsny.shtml, accessed May 2016.

² CEQR Technical Manual rates reflect city-wide average rates for total waste generation, including recyclables.

D. THE FUTURE WITH THE PROPOSED PROJECT

As described in greater detail in Chapter 1: Project Description, the Proposed Project would include a variety of commercial facilities that would produce solid waste. The 589,619-gsf commercial development is proposed to contain 300,128 gsf of general retail uses, 53,770 gsf of restaurant uses, an 80,000-sf supermarket, and a 55,000-gsf cinema. Based on standard industry employment density ratios, the Proposed Project is expected to generate an estimated 1,280 new workers. **Table 11-1** shows the cumulative solid waste expected with the Proposed Project in the future With Action condition with an estimated 187,992 pounds (or approximately 94 tons) of solid waste per week (including recyclables), which exceeds the *CEQR Technical Manual* threshold for a detailed analysis for solid waste management. Therefore, additional details with respect to solid waste management are provided below.

Table 11-1 With Action Condition: Solid Waste Generation

VI THE LEGION CONTROL VI WAS CONTROL VI				
Use	GSF	Workers ¹	Generation Rate (pounds per employee per week) ²	Solid Waste Generation (pounds per week)
General Retail	330,128	750	79	59,250
Restaurants	53,770	269	251	67,519
Supermarket	80,000	200	284	56,800
Cinema	55,000	55	79	4,345
Office	1,500	6	13	78
Mechanical/Operational	4,800	0	0	0
Parking	94,421	0	0	0
Project Total	589,619	1,280	-	187,992

Notes:

¹ Worker estimates for the new addition facilities based on standard industry employment ratios: 1 worker/400 gsf (general retail, supermarket), 1 worker/200 gsf (restaurant), 1 worker/1000 gsf (cinema), 1 worker/250 gsf (office).

All solid waste generated by the Proposed Project would need to be handled and managed in accordance with the City's Solid Waste Management Plan (2006). This includes the collection, handling, and transport of solid waste and recycling materials in accordance with the City's requirements for commercial operations as per its Plan. In accordance with the Plan, since the Proposed Project is a commercial project, all solid waste and recyclable materials would be managed by the commercial operating entity of the Proposed Project and handled by a private carting service and would not require any demands for DSNY services.

Solid waste generation with the Proposed Project would be a negligible increase relative to the approximately 26 million pounds (13,000 tons) of solid waste (including recyclables) handled by commercial carters every day in New York City. There are more than 2,000 private carting businesses that are authorized to serve New York City. Given that a private carter truck typically carries between 12 and 15 tons of solid waste, the Proposed Project would require approximately seven to eight additional truck trips per week (or about one per day), and it is expected that the collection fleets of the existing carting businesses would be sufficiently flexible to accommodate this increased demand for solid waste collection.

As described in Chapter 1, "Project Description," the Proposed Project is comprised of multiple business operations that include general retail, supermarket, cinema, and restaurant uses. Each of

² See Table 14-1 of the 2014 CEQR Technical Manual.

the individual business operations would be responsible for the collection and separation of their solid waste (and recyclables) over the course of each business day within their leased area. It is also expected that the leasing agreements with each tenant would specify the solid waste management requirements and procedures of the commercial center, including the separation of recyclables (e.g., paper, glass, metal) as required by City law at each individual business operation and that each business would have the necessary containers and dedicated space within their leased area to accommodate their own solid waste and recyclables generated over the course of each business day. These materials, source separated by each business, would then be brought, as needed, to a central collection area within the proposed parking garage on the cellar level for compacting and temporary storage prior to collection by private carting services. Receptacles for collecting solid waste and recyclables in common spaces such as along the private walkways and open spaces would also be maintained by the management entity.

Overall, the Proposed Project is expected to generate solid waste equivalent to approximately seven to eight commercial carter truck loads per week, which can be accommodated by existing carting businesses, and this minimal increase would not overburden existing commercial solid waste handling services. Therefore, the Proposed Project would not overburden the City's solid waste management capacity and would not have significant adverse impacts on solid waste and sanitation services.