Appendix 3.1-5

Long Island Marriott Phase I ESA & Phase II ESI

LANGAN

Memorandum

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To: Marc Gross – Las Vegas Sands

From: Kimberly Semon, PE – Langan

Info: Judy Tompkins – Las Vegas Sands; Jason Hayes, PE, Saul Shapiro, PE - Langan

Date: October 25, 2023

Re: Environmental Considerations Memorandum
Sands New York
101 James Doolittle Boulevard
Uniondale, New York
Langan Project No.: 170754501

This memorandum summarizes our findings from the February 2023 Phase I Environmental Site Assessment (ESA) and May 2023 Phase II Environmental Site Investigation (ESI) for the property located at 101 James Doolittle Boulevard in Uniondale, New York (the Site). This memo also includes environmental considerations for Site redevelopment.

The Site is identified on the Nassau County Tax Map as Section 44, Block F, Lots 326, 401, and 402. The about 14.6-acre Site is developed with a hotel comprised of a one-story podium with two 10-story towers and an attached 11-story tower, surrounded by asphalt-paved parking lots and landscaped areas. The Site is bound by a parking lot followed by Charles Lindbergh Boulevard to the north, James Doolittle Boulevard followed by the Francis T. Purcell Preserve to the east, Hempstead Turnpike followed by commercial building to the south, and the Nassau Veterans Memorial Coliseum and associated parking to the west. Prior to development as a hotel, the Site was operated by various military facilities dating back to the Revolutionary War, including Mitchel Air Force Base circa 1910s to the mid-1960s.

Langan's February 2023 Phase I ESA identified the following Recognized Environmental Conditions (RECs) associated with the Site:

REC 1: Historical Use of the Site

The Site and several adjoining and surrounding properties were occupied by Mitchel Air Force Base from the 1910s through the mid-1960s. Use prior to 1910 also included military facilities dating back to the revolutionary war. According to a December 2009 Site Inspection Report for Mitchel Field, prepared for the United States Army Corps of Engineers (USACE), the northeastern portion of the Site is within the former Skeet Range (MRS 2) and the southwestern corner of the Site is within the former Machine Gun Range (MRS 5). Soil samples collected during a 2009 investigation by the USACE found iron above the USEPA Residential Direct Contact Soil Screening Level and lead above the USEPA Interim Ecological Screening Levels; however, no samples were collected from the Site. The most recent publicly available information indicates that New York State Department of Environmental Conservation (NYSDEC) classifies the Site as

a "Class P" Inactive Hazardous Waste Disposal Site (SHWS) site, but NYSDEC has yet to complete an overall environmental assessment of the former airfield.

Undocumented spills or releases of solvents, chemicals, and/or other hazardous substances associated with this historical use may have adversely affected soil, groundwater, and/or soil vapor on the Site.

REC 2: Historical Petroleum Bulk Storage at the Site

According to Nassau County Fire Marshal records, an underground storage tank (UST) of unknown size was installed on December 17, 1982 on the Site. The UST is listed as removed; however, UST closure documentation was not provided. The absence of UST location information and closure documents is considered a REC.

REC 3: Current and Historical Use of the Adjoining and Surrounding Properties

Nassau Energy Corporation, located about 570 feet north of the Site (hydraulically up gradient), has operated as a power plant facility since the 1960s. The Nassau Energy Corp. is also identified under the facility names Suez Energy Generation, Trigen Nassau Energy, and Trigen Cogeneration Plant. The facility is listed in the RCRA generator databases for generation of corrosive-, silver- and halogenated-hazardous wastes and houses multiple aboveground storage tanks (ASTs) containing of solvents, acids and waste oil. Undocumented spills or releases of solvents, chemicals, or other hazardous substances associated with these current operations may have adversely affected groundwater, and/or soil vapor on the Site.

The Purex-Mitchell Field site, located about 5,061 feet northwest of the Site (hydraulically up gradient), operated as an industrial facility for chemical distribution from 1955 to 1977. Information on the facility indicates that a chlorinated solvent plume near the Site is related to former chemical distribution operations. Remediation to date has included contaminant recovery wells, air stripping, and a slurry wall constructed to restrict migration of groundwater contaminants. The results of a 1992 soil investigation indicated the soil clean-up objectives had been met; however, groundwater remediation is ongoing and soil vapor has not been evaluated. Based on proximity, contaminant extents and solubility, migration of contaminants in groundwater, and absence of information regarding impacts to soil vapor, this historical operation may have adversely affected groundwater, and/or soil vapor on the Site.

REC 4: Known Area-Wide Groundwater Contamination

The Old Roosevelt Field Contaminated Groundwater Area (USEPA ID No. NYSFN0204234) and New Cassel/Hicksville Groundwater Contamination (USEPA ID No. NY0001095363), are two National Priority List (NPL) sites located over 4,000 feet north and upgradient of the Site. Operations at the two sites include aviation activities from (1911 to 1955) and various industrial operations (time unknown), respectively. Both sites are considered to have contributed to a chlorinated solvent groundwater plume that has impacted public supply wells in the area of the Site. Contaminants of concern include carbon tetrachloride, 1,1-dichloroethene (1,1-DCE), tetrachloroethene (PCE), and trichloroethene (TCE). The exact source of the contamination is

unknown, and as per the database entry, the USEPA is considering various alternatives for remediation. Documented chlorinated solvent impacts to groundwater in the vicinity of the Site is considered a REC.

A Phase II ESI was conducted between February 14 and February 17, 2023 and included completion of a geophysical survey, advancement of 10 soil borings, and installation of two temporary groundwater monitoring wells and five soil vapor point across the Site footprint. The following is a summary of Phase II ESI findings:

- Non-native material was encountered to a maximum depth of about one foot below grade surface (bgs) and consists of fine-grained sand, with varying amounts of silt, gravel, road base, asphalt and concrete. Layers of silt and fine- to medium- to coarse-grained sand with fine gravel, and silt were observed beneath the non-native layer. Evidence of impacts (i.e., odors, staining, organic vapors) was not observed.

- Groundwater analytical results identified semivolatile organic compounds (SVOCs) and metals at concentrations above the NYSDEC Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (SGVs). Exceedances are likely the result of entrained sediment in groundwater derived from sediment and are not indicative of a point source or release.

- Petroleum-related and chlorinated volatile organic compounds (VOCs) were detected in soil vapor, but not at concentrations indicative of an on-site release. PCE was detected in soil vapor at concentrations where the recommended action ranges from 'no further action' to 'identify source(s) and resample or mitigate', dependent on corresponding indoor air concentration, when compared to the New York State Department of Health (NYSDOH Decision Matrices). The NYSDOH matrices are conservative in that they do not differentiate commercial/industrial use from residential. Results for soil vapor samples do not indicate a need for mitigation based on a comparison the USEPA Commercial Vapor Intrusion Screening Level (VISLs).

Based on the findings of the February 2023 Phase I ESA and May 2023 Phase II ESI, we recommend the following environmental subsurface items be considered prior to and during construction:

- Excess soil generated during future redevelopment should be handled, transported and disposed of or recycled in accordance with 6 NYCRR Part 360 regulations and the requirements of potential recycling and disposal facilities. Soil and/or non-native material should be characterized in accordance with the testing requirements of the proposal permitted disposal or recycling facility.

- Uncontaminated soil and non-native material that is derived from the Site that is not observed to be petroleum-impacted, exhibits no signs of staining or odor may be reused. Reuse of on-site soil or non-native material must be conducted in accordance with applicable agency requirements.

- If encountered during redevelopment of the Site, removal of any USTs and/or associated appurtenances (e.g., fill lines, vent line, and electrical conduit), decommissioning and off-Site disposal will be done in accordance with Nassau County Department of Health (NCDH) UST closure requirements. Previously unidentified USTs will be registered with the NCDH, as necessary.

- Prepare and implement a health and safety program and plan that addresses the contaminants identified in the Phase II ESI and any other contaminants that can be reasonable anticipated during subsurface work.

These considerations were developed based on the findings of the February 2023 Phase I ESA and May 2023 Phase II ESI prepared by Langan. Special risks occur whenever engineering or related disciplines are applied to identify subsurface conditions. Even a comprehensive sampling and testing program implemented in accordance with a professional standard of care may fail to detect certain conditions. The environmental, geologic, geotechnical, geochemical, and hydrogeologic conditions that Langan interprets to exist between sampling points may differ from those that exist. Actual conditions will vary from those encountered at the locations where borings, sampling, surveys, observations or explorations are made by Langan or its subcontractors and the data, interpretation, and recommendations of Langan are based solely on the information available to it. Furthermore, the passage of time, natural occurrences, and/or direct or indirect human intervention at or near the Site may substantially alter discovered conditions.