Appendix G: Air Quality

Appendix G1: Proposed Air Quality (E) Designations

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A. INTRODUCTION

In the future with the Proposed Actions, (E) Designations are proposed to avoid impacts on privately owned parcels on projected or potential development sites with respect to air quality (heating and hot water systems and potential industrial uses). A description of the requirements of those (E) Designations follows. A list of the sites, blocks, and lots affected by the (E) Designations is presented in Tables F-1 through F-2.

B. PROPOSED (E) DESIGNATIONS

HEATING AND HOT WATER SYSTEM (E) DESIGNATIONS

Under the Proposed Actions, for each of the 96 projected and potential development sites (60 projected and 36 potential development sites) development sites that failed the heating and hot water system screening analysis, a refined analysis was performed utilizing the AERMOD dispersion model (see Chapter 15," Air Quality"). The results indicated that 10 sites that failed the screening analysis for No. 2 oil, but passed the screening analysis for natural gas, and 58 sites that failed the screening analysis for natural gas also failed the refined analysis.[1]

To preclude the potential for significant adverse air quality impacts on other projected and potential developments from the heating and hot water system emissions, an (E) Designation would be incorporated into the proposed rezoning for each of the affected sites. The descriptions and requirements of the proposed (E) Designations for these sites with respect to heating and hot water systems are presented in Tables G-1 and G-2.

Table G-1
(E) Designations for Projected Development Sites
(Heating and Hot Water System Restrictions)

Development Site	Block	Lot	Proposed (E) Designation
2	3919	34	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no more than 20 feet away from the east lot line facing Beach Avenue, to avoid any potential significant air quality impacts.
3	3926	1	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 70 feet away from the east lot line facing Leland Avenue and no less than 70 feet away from the west lot line facing Thieriot Avenue, to avoid any potential significant air quality impacts.

[1] For the initial natural gas AERMOD runs some refinements were made for either stack locations or stack heights based upon the location and/or height of the receptor building.

4	3927	1	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no more than 28 feet away from the west lot line facing Leland Avenue, to avoid any potential significant air quality impacts.
9A	4042	200, 201, 204	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 190 feet away from exterior wall facing Proposed Site 9B to the west and at least 50 feet away from exterior wall facing Proposed Sites 9E & 9F to the south, to avoid any potential significant air quality impacts.
9B	4042	200, 201, 204	Any new residential and/or commercial development must exclusively use natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 75 feet away from the exterior wall facing Proposed Site 9C to the west and at least 30 feet away from the south exterior wall, to avoid any potential significant air quality impacts.
9C	4042	200, 201, 204	Any new residential and/or commercial development must exclusively use natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 100 feet away from the east exterior wall facing Proposed Site 9B and at least 30 feet away from the south exterior wall, to avoid any potential significant air quality impacts.
9D	4042	200, 201, 204	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 60 feet away from the north exterior wall facing Proposed Site 9B, to avoid any potential significant air quality impacts.
9E	4042	200, 201, 204	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 40 feet away from the west exterior wall facing Proposed Site 9D to the west, to avoid any potential significant air quality impacts.
9F	4042	200, 201, 204	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 82 feet away from the west exterior wall facing Proposed Site 9E and at least 20 feet away from the north exterior wall facing Proposed Sites 9A, to avoid any potential significant air quality impacts.
10	4042	244	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 55 feet away from the east lot line facing Bronxdale Avenue to avoid any potential significant air quality impacts.
11	4091	39, 45	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less

			than 36 feet away from the east lot line facing Fowler Avenue and at least 50 feet away from the north lot line facing Van Nest Avenue, to avoid any potential significant air quality impacts.
12	4091	34, 37	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 55 feet away from the west lot line facing Bronxdale Avenue, to avoid any potential significant air quality impacts.
15	4062	18, 19	Any new residential and/or commercial development must exclusively use only natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 50 feet away from the west lot line facing Bronxdale Avenue to avoid any potential significant air quality impacts.
18	4078	123	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 170 feet away from the east lot line facing Roselle Street and Silver Street to avoid any potential significant air quality impacts.
20	4079	1	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems to avoid any potential significant air quality impacts.
21	4085	130	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 85 feet away from the east lot line facing Eastchester Road, to avoid any potential significant air quality impacts.
22	4085	119, 125	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 400 feet away from the west lot line facing Williamsbridge Road, to avoid any potential significant air quality impacts.
23	4082	18	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 70 feet away from the east lot line facing Jarrett Place, to avoid any potential significant air quality impacts.
24	4083	1, 5, 11, 13, 27	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 150 feet away from the north lot line facing Poplar Road, to avoid any potential significant air quality impacts.
25	4081	33	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 50 feet away from the east lot line facing Blondell Avenue and no more than 50 feet away from the south lot line facing Chesbrough Avenue, to avoid any potential significant air quality impacts.
26	4081	14, 16	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 55 feet away from the south lot line facing Chesbrough Avenue, to avoid any potential significant air quality impacts.

27	4081	24	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 65 feet away from the west lot line facing Williamsbridge Road, to avoid any potential significant air quality impacts.
29	4226	7, 10, 507, 508, 509	Any new residential and/or commercial development must be fitted with low NOx (15 ppm) burners firing only natural gas for heating and hot water systems, ensure that the heating and hot water system stack(s) is located at least 150 feet away from the north lot line facing Project Site 30 and ensure that heating and hot water systems stack(s) is located at least 163 feet above grade, to avoid any potential significant air quality impacts.
32	4226	419, 420, 422	Any new residential and/or commercial development must be fitted with low NO_x (15 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 85 feet away from the south lot line facing Eastchester Road to avoid any potential significant air quality impacts.
33	4209	1	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 60 feet away from the east lot line facing Bassett Avenue and at least 80 feet away from the north lot line facing Morris Park Avenue, to avoid any potential significant air quality impacts.
34	4209	5	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located no less than 60 feet away from the east lot line facing Bassett Avenue and at least 65 feet away from the south lot line facing Loomis Street, to avoid any potential significant air quality impacts.
36	4209	12, 110	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 60 feet away from the east lot line facing Bassett Avenue and at least 60 feet away from the north lot line facing Wilkinson Avenue, to avoid any potential significant air quality impacts.
37	4209	64	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 70 feet away from the west lot line facing Eastchester Road and at least 60 feet away from the north lot line facing Wilkinson Avenue, to avoid any potential significant air quality impacts.
38	4209	25	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 20 feet away from the south lot line facing Morris Park Avenue, to avoid any potential significant air quality impacts.
39	4209	50, 51, 53, 54, 55	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 80 feet away from the west lot line facing Eastchester Road and at least 65 feet away from the north lot line facing Wilkinson Avenue, at least 80 feet away from the south lot line facing

			Morrise Park Avenue, and at least 165 feet above grade, to avoid any potential significant air quality impacts.
40	4209	47, 48	Any new residential and/or commercial development must exclusively use natural gas for the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 60 feet away from the west lot line facing Eastchester Road and at least 55 feet away from the south lot line facing Morris Park Avenue, to avoid any potential significant air quality impacts.
41	4209	33, 37	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 130 feet away from the south lot line facing Morris Park Avenue, to avoid any potential significant air quality impacts.
42	4219	3	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 40 feet away from the east lot line facing Bassett Avenue and at least 15 feet away from the north lot line facing McDonald Street, to avoid any potential significant air quality impacts.
43	4219	64, 68	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems to avoid any potential significant air quality impacts.
46	4219	16	Any new residential and/or commercial development must be fitted with low NO_x (15 ppm) burners firing only natural gas for heating and hot water systems, ensure that the heating and hot water system stack(s) is located no more than 70 feet away from the east lot line facing Basset Avenue and no less than 70 feet away from the south lot line facing potential Site AA, and ensure that heating and hot water systems stack(s) is located at least 198 feet above grade, to avoid any potential significant air quality impacts.
48	4218	31	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 45 feet away from the west lot line facing Eastchester Road, to avoid any potential significant air quality impacts.
49	4218	26	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 40 feet away from the west lot line facing Eastchester Road and at least 50 feet away from the south lot line facing Stillwell Avenue and Eastchester Road, to avoid any potential significant air quality impacts.
50	4219	42, 45	Any new residential and/or commercial development must be fitted with low NOx (15 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 70 feet away from the west lot line facing Stillwell Avenue, at least 40 feet away from the south lot line facing Wilkinson Avenue and at least 35 feet away from the north lot line facing McDonald Avenue to avoid any potential significant air quality impacts.
51	4219	40	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems

			stack(s) is located at least 50 feet away from the west lot line facing Stillwell Avenue, and at least 30 feet away from the south lot line facing Wilkinson Avenue, to avoid any potential significant air quality impacts.
52	4219	35, 39	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 70 feet away from the west lot line facing Stillwell Avenue and at least 70 feet away from the south lot line facing Wilkinson Avenue, to avoid any potential significant air quality impacts.
53	4219	26	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, ensure that the heating and hot water system stack(s) is located no less than 60 feet away from the east lot line which is facing Bassett Avenue and at least 55 feet away from the south lot line facing Wilkinson Avenue, and ensure that heating and hot water systems stack(s) is located at least 153 feet above grade, to avoid any potential significant air quality impacts.
54	4219	29, 31	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 65 feet away from the east lot line facing Bassett Avenue and at least 65 feet away from the south lot line facing Wilkinson Avenue, to avoid any potential significant air quality impacts.
55	4221	42, 44, 46	Any new residential and/or commercial development must exclusively use natural gas for the type of fuel for heating and hot water systems and ensure that the heating and hot water systems stack(s) is located no more than 20 feet from the west lot line facing Eastchester Road and at least 80 feet away from the north lot line facing Rhinelander Avenue, to avoid any potential significant air quality impacts.
56	4221	36	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 60 feet away from the west lot line facing Eastchester Road and no more than 20 feet away from the north lot line facing Rhinelander Avenue, to avoid any potential significant air quality impacts.

Table G-2
(E) Designations for Potential Development Sites
(Heating and Hot Water System Restrictions)

Development Site	Block	Lot	Proposed (E) Designation
A	3925	1,6,9	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 165 feet away from the east lot line facing Thieriot Avenue, to avoid any potential significant air quality impacts.
B	3927	8	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems

			stack(s) is located no less than 75 feet away from the west lot line facing Leland Avenue, to avoid any potential significant air quality impacts.
C	4042	236	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no more than 65 feet from the south lot line facing East Tremont Avenue, to avoid any potential significant air quality impacts.
E	4058	2, 8	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 55 feet from the south lot line facing Sacket Avenue, to avoid any potential significant air quality impacts.
F	4058	29	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 45 feet away from the east lot line facing Bogart Avenue and at least 45 feet from the north lot line facing Pierce Avenue, to avoid any potential significant air quality impacts.
G	4062	21, 22	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 32 feet away from the east lot line facing Paulding Avenue, to avoid any potential significant air quality impacts.
H	4063	18, 19, 20	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 45 feet away from the east lot line facing Paulding Avenue, to avoid any potential significant air quality impacts.
I	4063	15, 17	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 50 feet away from east lot line facing Paulding Avenue, to avoid any potential significant air quality impacts.
J	4063	10	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 65 feet away from west lot line facing Bronxdale Avenue, to avoid any potential significant air quality impacts.
L	4067	41, 141	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no less than 50 feet away from the east lot line facing Hone Avenue, to avoid any potential significant air quality impacts.
M	4067	37, 39	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 45 feet from the west lot line facing Paulding Avenue and at most 27 feet from the south lot line facing East Tremont Avenue, to avoid any potential significant air quality impacts.
O	4068	26, 28, 30	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems to avoid any potential significant air quality impacts.

Q	4081	1, 2	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems to avoid any potential significant air quality impacts.
R	4081	30	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 50 feet away from the west lot line facing Williamsbridge Road and at least 50 feet from the north lot line facing Eastchester Road, to avoid any potential significant air quality impacts.
S	4082	19, 20	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems to avoid any potential significant air quality impacts.
T	4226	510, 511	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located no more than 50 feet away from the west lot line facing Eastchester Road and no more than 20 feet away from the south lot line facing Waters Place, to avoid any potential significant air quality impacts.
U	4226	401, 405, 408	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems and ensure that the heating and hot water systems stack(s) is located no less than 125 feet away from the north lot line facing Loomis Street, to avoid any potential significant air quality impacts
W	4209	30, 32	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 70 feet away from the east lot line facing Bassett Avenue and at least 55 feet from the south lot line facing Morris Park Avenue, to avoid any potential significant air quality impacts.
X	4218	7, 9	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 50 feet from the north lot line facing Seminole Street, to avoid any potential significant air quality impacts.
Y	4218	33, 36	Any new residential and/or commercial development must be exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 50 feet away from the west lot line facing Eastchester Road and at least 50 feet from the north lot line facing Seminole Street, to avoid any potential significant air quality impacts.
Z	4219	12, 13	Any new residential and/or commercial development must be fitted with low NOx (30 ppm) burners firing only natural gas for heating and hot water systems, ensure that the heating and hot water system stack(s) is located no less than 50 feet away from the east lot line facing Bassett Avenue and at least 15 feet away from the south lot line facing Wilkinson Avenue, at least 15 feet from the north lot line facing McDonald Street, and ensure that heating and hot water systems stack(s) is located at least 150 feet above grade, to avoid any potential significant air quality impacts.
AA	4219	55	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least

			50 feet away from the west lot line facing Stillwell Avenue and at least 30 feet from the north lot line facing McDonald Street, to avoid any potential significant air quality impacts.
BB	4218	21, 22, 23, 24	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel, and ensure that the heating and hot water system stack(s) is located no more than 50 feet away from the north lot line facing Seminole Street, to avoid any potential significant air quality impacts.
CC	4219	18, 20	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems, ensure that the heating and hot water system stack(s) is located at least 65 feet away from the east lot line facing Bassett Avenue, at least 30 feet away from the south lot line facing Wilkinson Avenue, and at least 30 feet away from the north lot line facing McDonald Street, and ensure that heating and hot water systems stack(s) is located at least 175 feet above grade, to avoid any potential significant air quality impacts.
DD	4219	46, 47	Any new residential and/or commercial development must be fitted with low NOx (15 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water system stack(s) is located at least 70 feet away from the west lot line facing Stillwell Avenue, at least 28 feet away from north lot line facing McDonald Street, and at least 28 feet away from the south lot line facing Wilkinson Avenue, and ensure that heating and hot water systems stack(s) is located at least 158 feet above grade, to avoid any potential significant air quality impacts.
EE	4219	22, 24	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 70 feet away from the east lot line facing Bassett Avenue and at least 70 feet from the south lot line facing Wilkinson Avenue, to avoid any potential significant air quality impacts.
FF	4220	1	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems to avoid any potential significant air quality impacts.
GG	4220	26, 29, 30, 32	Any new residential and/or commercial development must exclusively use natural gas as the type of fuel for heating and hot water systems to avoid any potential significant air quality impacts.
HH	4221	32, 33,	Any new residential and/or commercial development must be fitted with low NO_x (30 ppm) burners firing only natural gas for heating and hot water systems, and ensure that the heating and hot water systems stack(s) is located at least 30 feet away from the east lot line facing Stillwell Avenue, to avoid any potential significant air quality impacts.