Pfizer Sites Rezoning

Final Environmental Impact Statement (FEIS)

CEQR No. 15DCP117K
ULURP Nos.: C150278ZMK & N150277ZRK

Lead Agency:
City Planning Commission, City of New York
Marisa Lago, Chair

September 8, 2017

Pfizer Sites Rezoning

Final Environmental Impact Statement (FEIS)

September 8, 2017

Project Location:	Community District 1 Borough of Brooklyn
CEQR No.:	15DCP117K
Type of Action:	Unlisted
ULURP Nos.:	C150278ZMK & N150277ZRK
Lead Agency:	City Planning Commission, City of New York Marisa Lago, Chair
Lead Agency Contact:	Robert Dobruskin, AICP Director, Environmental Assessment and Review Division 120 Broadway, 31st Floor Department of City Planning, City of New York New York, NY 10007 +1.212.720.3423
Applicant:	Harrison Realty LLC
Prepared by:	Philip Habib & Associates

The FEIS is available for review on the website of the New York City Department of City Planning: http://www1.nyc.gov/site/planning/applicants/eis-documents.page

TABLE OF CONTENTS

Executive Summary **ES-1**

Chapter 1: Project Description **1-1**
A. Introduction 1-1
B. Existing Conditions 1-4
Rezoning Area 1-4
Neighborhood Context 1-6
C. Proposed Action 1-7
Proposed Zoning Map Amendment 1-7
Proposed Zoning Text Amendment 1-8
Restrictive Declaration (RD) 1-9
(E) Designation 1-9
D. RWCDS/Proposed Project 1-9
RWCDS 1-10
RWCDS No-Action Conditions 1-11
RWCDS With-Action Conditions 1-12
Net Increment 1-15
Build Year 1-15
E. Purpose and Need 1-15
F. Public Review Process 1-16
Uniform Land Use Review Procedure (ULURP) 1-16
City Environmental Quality Review (CEQR) 1-17

Chapter 2: Land Use, Zoning, and Public Policy **2-1**
A. Introduction 2-1
B. Principal Conclusions 2-2
C. Methodology 2-2
Analysis Year 2-3
Study Area Definition 2-3
Data Sources 2-3
D. Existing Conditions 2-4
Land Use 2-4
Zoning 2-7
Public Policy 2-14
E. Future Without the Proposed Action 2-17
Land Use 2-17
Zoning 2-18
Public Policy 2-20
F. The Future With the Proposed Action 2-20
Proposed Action 2-20
RWCDS With-Action Conditions 2-21
Land Use 2-22
Zoning 2-22
Public Policy 2-27

Chapter 3: Socioeconomic Conditions **3-1**
A. Introduction 3-1
B. Principal Conclusions 3-1
Direct Residential Displacement 3-2

Indirect Residential Displacement 3-2
Direct Business and Institutional Displacement 3-3
Indirect Business and Institutional Displacement 3-3
Adverse Effects on Specific Industries 3-4
C. Methodology 3-4
Determining Whether a Socioeconomic Assessment is Appropriate 3-5
Analysis Format 3-7
Study Area Definition 3-7
Data Sources 3-8
D. Preliminary Assessment 3-8
Indirect Residential Displacement 3-8

Chapter 4: Community Facilities 4-1
A. Introduction 4-1
B. Principal Conclusions 4-1
C. Screening Level Assessment 4-2
D. Public Elementary, Intermediate and High Schools 4-3
Methodology 4-3
Indirect Effects on Public Schools 4-4
Existing Conditions 4-4
Future Without the Proposed Action (No-Action) 4-6
Future With the Proposed Action (With-Action) 4-9
Impact Significance 4-11
E. Child Care 4-11
Methodology 4-12
Indirect Effects on Child Care Centers 4-13
Existing Conditions 4-13
Future Without the Proposed Action (No-Action) 4-13
Future With the Proposed Actions (With-Action) 4-15
Impact Significance 4-15
F. Libraries 4-16
Methodology 4-16
Indirect Effects on Libraries 4-17
Existing Conditions 4-17
Future Without the Proposed Action (No-Action) 4-19
Future With the Proposed Actions (With-Action) 4-19
Impact Determination 4-20

Chapter 5: Open Space 5-1
A. Introduction 5-1
B. Principal Conclusions 5-1
C. Open Space Study Area and Methodology 5-2
Open Space Study Area 5-3
Analysis Framework 5-3
D. Preliminary Assessment 5-5
E. Detailed Analysis 5-5
Existing Conditions 5-5
Quantitative Analysis of Open Space Adequacy 5-12
Qualitative Assessment of Open Space Adequacy 5-13
Future Without the Proposed Action (No-Action) 5-14
Open Space Resources 5-16
Quantitative Analysis of Open Space Adequacy 5-17
Qualitative Assessment of Open Space Adequacy 5-17

Future With the Proposed Action (With-Action) 5-17
Direct Effects Analysis 5-18
Indirect Effects Analysis 5-18
Assessment of Open Space Adequacy 5-20

Chapter 6: Shadows 6-1
A. Introduction 6-1
B. Principal Conclusions 6-1
C. Methodology 6-2
Future Without the Proposed Action (No-Action) 6-4
Future With the Proposed Action (With-Action) 6-4
D. Preliminary Screening 6-5
Tier 1 Screening Assessment 6-5
Tier 2 Screening Assessment 6-5
Tier 3 Screening Assessment 6-5
E. Detailed Analysis of Shadow Impacts 6-6
Resources Affected by Project-Generated Shadows 6-6
Detailed Shadows Analysis 6-6
Assessment 6-9

Chapter 7: Historic and Cultural Resources 7-1
A. Introduction 7-1

Chapter 8: Urban Design and Visual Resources 8-1
A. Introduction 8-1
B. Principal Conclusions 8-2
C. Methodology 8-2
Wind Screening 8-3
Definition of Study Area 8-4
D. Preliminary Assessment 8-4
E. Existing Conditions 8-4
Project Area 8-4
Study Area 8-6
F. Future Without the Proposed Action 8-13
Project Area 8-13
Study Area 8-13
G. Future With the Proposed Action 8-14
Project Area 8-14
Study Area 8-15
Summary 8-16

Chapter 9: Hazardous Materials 9-1
A. Introduction 9-1
B. Principal Conclusions 9-1
C. Existing Conditions 9-2
Previous Site Assessments and Remediation Activities 9-2
D. Future Without the Proposed Action (No-Action) 9-2
E. Future With the Proposed Action (With-Action) 9-3

Chapter 10: Water and Sewer Infrastructure 10-1
A. Introduction 10-1
B. Principal Conclusions 10-1
Water Supply 10-1

Sanitary (Dry Weather) Flows....10-1
Stormwater (Wet Water) Flows....10-2
C. Methodology....10-2
Water Supply....10-2
Wastewater and Stormwater Conveyance and Treatment....10-3
D. Existing Conditions....10-3
Sewer System....10-3
E. Future without the Proposed Action (No-Action)....10-5
Sewer System....10-5
F. Future with the Proposed Action (With-Action)....10-6
Sewer System....10-6

Chapter 11: Energy....11-1
A. Introduction....11-1
B. Principal Conclusions....11-1
C. Methodology....11-2
D. Existing Conditions....11-2
Energy Supply and Transmission....11-2
Recent Energy Conservation Directives....11-3
Existing Demand....11-4
E. Future without the Proposed Action (No-Action)....11-5
Energy Supply and Transmission....11-5
No-Action Demand....11-5
F. Future with the Proposed Action (With-Action)....11-5
Energy Supply and Transmission....11-5
With-Action Demand....11-5

Chapter 12: Transportation....12-1
A. Introduction....12-1
B. Principal Conclusions....12-2
Traffic....12-2
Parking....12-2
Transit....12-2
Pedestrians....12-3
C. Level 1 and Level 2 Screening Analysis....12-3
Level 1 Screening Analysis....12-4
Traffic....12-7
Parking....12-8
Transit....12-10
Pedestrians....12-12
D. Vehicular Traffic....12-14
Street Network....12-14
Analysis Methodology....12-15
Existing Conditions....12-16
Future Without the Proposed Action (No-Action Condition)....12-18
Future With the Proposed Action (With-Action Condition)....12-22
E. Rail Transit....12-26
Analysis Methodology....12-27
Existing Condition....12-28
Future Without the Proposed Action (No-Action Condition)....12-28
Future With the Proposed Action (With-Action Condition)....12-28
F. Pedestrians....12-31
Analysis Methodology....12-33

Existing Condition 12-33
Future Without the Proposed Action (No-Action Condition) 12-34
Future With the Proposed Action (With-Action Condition) 12-34
G. Vehicular and Pedestrian Safety Evaluation 12-46
H. Summary 12-47
Chapter 13: Air Quality 13-1
A. Introduction 13-1
B. Principal Conclusions 13-2
C. Mobile Source Screening 13-3
D. Stationary Source Analysis 13-3
HVAC Screening 13-3
CEQR Screening Analysis 13-7
Detailed Analysis 13-8
NO_2 Analysis 13-19
E. Industrial Source Analysis 13-23
Data Sources 13-24
Industrial Source Type 13-24
Methodology 13-26
Screening Analysis 13-26
PERC and Nickel Cancer Risk and Annual Concentration Ratios Estimate 13-27
Summary of Toxic Emissions Analysis 13-28
F. Garage Emissions Analysis 13-28
Background Concentrations 13-28
Parking Facilities Analysis 13-29
Results 13-30
G. (E) Designation 13-31

Chapter 14: Greenhouse Gas Emissions and Climate Change 14-1
A. Introduction 14-1
B. Principal Conclusions 14-2
C. Background 14-2
Recognized Greenhouse Gases 14-2
Carbon Dioxide (CO_2) 14-2
Methane (CH_4) 14-2
Nitrous Oxide (N_2O) 14-3
Fluorinated Gases 14-3
Climate Change 14-4
D. Methodology 14-4
Greenhouse Gas Emissions 14-4
Climate Change 14-6
E. GHG Emissions 14-7
Operational Emissions 14-7
Mobile Source Emissions 14-7
Summary 14-8
Consistency with GHG Reduction Goal 14-8
F. Climate Change 14-9

Chapter 15: Noise 15-1
A. Introduction 15-1
B. Principal Conclusions 15-1
C. Noise Fundamentals 15-2
"A"-Weighted Sound Level (dBA) 15-2
Community Response to Changes in Noise Levels 15-3

Noise Descriptors Used in Impact Assessment....15-4
Applicable Noise Codes and Impact Criteria....15-4
New York City Noise Code....15-4
D. Noise Prediction Methodology....15-6
Proportional Modeling....15-6
Train Noise Modeling....15-7
E. Existing Conditions....15-9
Selection of Noise Receptor Locations....15-10
Noise Monitoring....15-11
Equipment Used During Noise Monitoring....15-11
Existing Noise Levels at Noise Receptor Locations....15-12
Measured Noise Levels....15-12
F. Future without the Proposed Action (No-Action)....15-13
G. Future with the Proposed Action (With-Action)....15-14
H. Attenuation Requirements....15-16
(E) Designation....15-18
I. Other Noise Concerns....15-19
Mechanical Equipment....15-19
Aircraft Noise....15-19

Chapter 16: Public Health....16-1
A. Introduction....16-1
B. Principal Conclusions....16-1
C. Public Health Assessment....16-2

Chapter 17: Neighborhood Character....17-1
A. Introduction....17-1
B. Principal Conclusions....17-2
C. Methodology....17-2
Study Area....17-3
D. Preliminary Assessment....17-3
Defining Features....17-3
Assessment of the Potential to Affect the Defining Features of the Neighborhood....17-6

Chapter 18: Construction....18-1
A. Introduction....18-1
B. Principal Conclusions....18-2
C. Conceptual Construction Schedule and Activities....18-2
Construction Sequencing....18-2
Construction Activities....18-3
Estimate of Construction Workers and Construction Period Trucks....18-8
D. Preliminary Assessment....18-9
Transportation....18-9
Air Quality....18-12
Noise....18-16
Vibration....18-21
Historic and Cultural Resources....18-22
Hazardous Materials....18-23
Natural Resources....18-23
Summary....18-23

Chapter 19: Mitigation....19-1
A. Introduction....19-1

B. Principal Conclusions 19-1
Community Facilities and Services 19-1
Transportation 19-3
C. Community Facilities and Services 19-4
Intermediate Schools 19-4
D. Transportation 19-5
Traffic 19-5
Effects of Traffic and Sidewalk Mitigation on Corner Area and Crosswalk Conditions 19-6

Chapter 20: Alternatives 20-1
A. Introduction 20-1
B. Principal Conclusions 20-1
No-Action Alternative 20-1
Lesser Density Alternative 20-2
No Significant Adverse Schools Impact Alternative 20-3
C. No-Action Alternative 20-4
Land Use, Zoning, and Public Policy 20-4
Socioeconomic Conditions 20-5
Community Facilities and Services 20-5
Open Space 20-5
Shadows 20-5
Historic and Cultural Resources 20-6
Urban Design and Visual Resources 20-6
Hazardous Materials 20-6
Water and Sewer Infrastructure 20-6
Energy 20-7
Transportation 20-7
Air Quality 20-7
Greenhouse Gas Emissions and Climate Change 20-7
Noise 20-8
Public Health 20-8
Neighborhood Character 20-8
Construction 20-8
D. Lesser Density Alternative 20-8
Land Use, Zoning, and Public Policy 20-10
Socioeconomic Conditions 20-11
Community Facilities and Services 20-13
Open Space 20-13
Shadows 20-14
Historic and Cultural Resources 20-14
Urban Design and Visual Resources 20-15
Hazardous Materials 20-15
Water and Sewer Infrastructure 20-15
Energy 20-16
Transportation 20-16
Air Quality 20-19
Greenhouse Gas Emissions and Climate Change 20-20
Noise 20-20
Public Health 20-21
Neighborhood Character 20-21
Construction 20-21
E. No Significant Adverse Schools Impact Alternative 20-22

Chapter 21: Unavoidable Adverse Impacts 21-1
A. Introduction 21-1
B. Community Facilities and Services: Intermediate Schools 21-1
C. Transportation: Traffic 21-2

Chapter 22: Growth-Inducing Aspects of the Proposed Action 22-1

Chapter 23: Irreversible and Irretrievable Commitment of Resources 23-1

Chapter 24: Response to Comments on the DEIS 24-1

APPENDICES

Appendix I: Proposed Zoning Text Amendment
Appendix II: Agency Correspondence
Appendix III: WRP Consistency Assessment Form and Flood Evaluation Worksheet
Appendix IV: Transportation Planning Factors Memo
Appendix V: Comments Received on the DEIS

LIST OF TABLES

ES-1 Summary of Rezoning Area Existing Conditions ES-6
ES-2 Project Area RWCDS Conditions ES-15
ES-3 Maximum Amount of Floor Area That Can Be Developed: With-Action Conditions ES-16
ES-4 Summary of Lane Groups/Intersections with Significant Adverse Traffic Impacts ES-32
1-1 Summary of Rezoning Area Existing Conditions 1-6
1-2 Project Area RWCDS Conditions 1-13
1-3 Maximum Amount of Floor Area That Can Be Developed: With-Action Conditions 1-14
2-1 Study Area Generalized Land Use 2-8
2-2 No-Build Developments 2-19
2-2a No-Build Developments: Broadway Triangle Rezoning City-owned Development Sites 2-20
2-3 Comparison of Existing and Proposed Zoning 2-25
3-1 Recent Study Area Residential Developments 3-10
3-2 Population Income Characteristics in the ½-Mile Study Area, Borough of Brooklyn and New York City- 2000 and 2010-14 3-10
3-3 Distribution of Household Income in the Study Area, Borough of Brooklyn, and New York City (1999, 2010-14) 3-12
3-4 2000 and 2010-14 Residential Population 3-13
3-5 Estimated Residential Population in the ½-Mile Study Area—No-Action and With-Action Conditions 3-13
3-6 Housing Characteristics and Trends, 2000 and 2010-14 3-14
3-7 A Comparison of Current Average Rental Rates in Williamsburg, Bedford Stuyvesant and the Borough of Brooklyn, 2010 and 2016 3-16
3-8 Comparison of Condominium Sales in Williamsburg, Bedford Stuyvesant and the Borough of Brooklyn, 2015-2016 3-17
3-9 A Comparison of One to Three Family Dwelling Sales in Williamsburg, Bedford Stuyvesant and the Borough of Brooklyn, 2015-2016 3-18
4-1a 2015-2016 CSD 14, Sub-district 1 Elementary & Intermediate School Existing Enrollment and Capacity 4-5
4-1b 2015-2016 Brooklyn High School Existing Enrollment and Capacity 4-6
4-2a 2019 No-Action: Projected Enrollment in CSD 14, Sub-district 1 Elementary and Intermediate Schools 4-8
4-2b 2019 No-Action: Projected Enrollment in Brooklyn High Schools 4-9
4-3 2019 Future With the Proposed Action: Estimated Number of Students Introduced 4-9
4-4a Total Projected With-Action Enrollment and Utilization change for Elementary and Intermediate Schools in CSD 14, Sub-district 1 4-10
4-4b 2019 - Total Projected With-Action Enrollment and Utilization change for High Schools in Brooklyn 4-10
4-5 Study Area Publicly-funded Child Care 4-14
4-6 Projected Publicly-Funded Child Care Enrollment and Capacity Changes in the 2019 No-Action 4-14
4-7 2019 RWCDS With-Action: Estimated Number of Child Care Eligible Children Under Age 6 4-15
4-8 Projected Publicly-Funded Child Care Enrollment and Capacity Changes in the 2019 With-Action 4-15
4-9 Public Libraries in the ¾-Mile Study Area 4-17
4-10 Libraries Study Area: Population, Holdings, and Holdings per Resident 4-20
5-1 2016 Existing Study Area Population 5-6
5-2a Study Area Age Groups (2010) 5-6
5-2b Brooklyn, Age Groups (2010) 5-6
5-3 Inventory of Existing Study Area Public Open Spaces 5-9
5-4 Analysis of Adequacy of Open Space Resources in the Study Area under 2016 Existing Conditions 5-13
5-5 Additional Open Space Resources Adjacent to the Study Area 5-15
5-6 2019 No-Action Study Area Population 5-16
5-7 Analysis of Adequacy of Open Space Resources in the Study Area under 2019 No-Action Conditions 5-17
5-8 2019 Future With the Proposed Action: Open Space Ratios Summary 5-20
6-1 Sunlight Sensitive Resources Warranting Further Analysis Based on Tier 1 and 2 Assessment 6-5

6-2 Duration of Shadows on Sunlight Sensitive Resources (Increment Compared to No-Action) 6-7
10-1 Existing Project Area Surface Areas and Runoff Coefficients 10-5
10-2 Existing Project Site Stormwater and Sanitary Sewage Flow Volumes 10-5
10-3 Project Area Water Demand and Sewage Generation: 2019 No-Action vs. 2019 With-Action Conditions 10-7
10-4 With-Action Project Area Surface Areas and Runoff Coefficients 10-7
10-5 Project Area Stormwater and Sanitary Sewage Flow Volumes – With-Action vs. Existing Conditions 10-8
11-1 With-Action/Increment Annual Energy Consumption for the Project Area 11-6
12-1 Transportation Planning Factors 12-5
12-2a Travel Demand Forecast (Person Trips) 12-6
12-2b Travel Demand Forecast (Vehicle Trips) 12-7
12-3 Projected Weekday Hourly Parking Demand 12-9
12-4 Projected Saturday Hourly Parking Demand 12-9
12-5 2019 Bus Route Assignments 12-12
12-6 Intersection LOS Criteria 12-16
12-7 2015 Existing Traffic Levels of Service 12-18
12-8 2019 No-Action Sites 12-19
12-9 No-Action Intersection Improvements from the Broadway Triangle FEIS Mitigation 12-20
12-10 2019 No-Action Traffic Levels of Service 12-21
12-11 2019 With-Action Traffic Levels of Service 12-24
12-12 Subway Station Element LOS Criteria 12-28
12-13 2015 Existing Fare Array Levels of Service 12-29
12-14 2015 Existing Stairway Levels of Service 12-29
12-15 2019 No-Action Fare Array Levels of Service 12-30
12-16 2019 No-Action Stairway Levels of Service 12-30
12-17 Subway Stairway Significant Impact Thresholds 12-31
12-18 2019 With-Action Fare Array Levels of Service 12-32
12-19 2019 With-Action Stairway Levels of Service 12-32
12-20 LOS Criteria for Pedestrian Elements 12-33
12-21 2015 Existing Sidewalk Levels of Service 12-35
12-22 2015 Existing Crosswalk Levels of Service 12-36
12-23 2015 Existing Corner Area Levels of Service 12-37
12-24 2019 No-Action Sidewalk Levels of Service 12-38
12-25 2019 No-Action Crosswalk Levels of Service 12-39
12-26 2019 No-Action Corner Area Levels of Service 12-40
12-27 Significant Impact Criteria for Sidewalks in a CBD Location 12-42
12-28 Significant Impact Criteria for Corners and Crosswalks in a CBD Location 12-43
12-29 2019 With-Action Sidewalk Levels of Service 12-44
12-30 2019 With-Action Crosswalk Levels of Service 12-45
12-31 2019 With-Action Corner Area Levels of Service 12-46
12-32 Three-Year Accident Data 12-47
13-1 Applicable National Ambient Air Quality Standards and CEQR Significant Threshold Criteria 13-4
13-2 Building Parameters 13-7
13-3 Results of the Screening Analysis for Buildings Located on Blocks 2249 and 2265 13-9
13-4 $PM_{2.5}$ and NO_2 Emission Rates and Stack Parameters 13-11
13-5 Modeling Parameters for HVAC Analysis 13-12
13-6 $PM_{2.5}$ Analysis Results for Individual Buildings 13-13
13-7 $PM_{2.5}$ Cumulative Analysis Results 13-14
13-8 Results of NO_2 Analysis for Project-on-Project 13-19
13-9 1-Hour NO_2 Cumulative Analysis Results 13-20
13-10 Summary of Results ($\mu g/m^3$) 13-20
13-11 Estimated Short-term (1-hour) Concentration Ratios 13-27
13-12 Estimated Annual Concentration Ratios and Incremental Cancer Risks 13-28

13-13 Maximum Background Pollutant Concentrations for Parking Garage Analysis 13-29
14-1 Global Warming Potential for Primary Greenhouse Gases 14-3
14-2 NPCC Baseline Climate and Mean Annual Changes 14-4
14-3 RWCDS/Future With-Action Condition Annual Vehicle Miles Traveled (VMT/year) 14-6
14-4 Annual Operational Emissions....14-7
14-5 Annual Mobile Source Emissions 14-8
14-6 Summary of Total Annual GHG Emissions....14-8
15-1 Common Noise Levels 15-3
15-2 Average Ability to Perceive Changes in Noise Levels 15-3
15-3 Noise Exposure Guidelines for Use In City Environmental Impact Review 15-5
15-4 Required Attenuation Values to Achieve Acceptable Interior Noise Levels....15-5
15-5 Reference SEL's at 50 feet from Track and 50 mph 15-7
15-6 Computation of Noise Exposure at 50 feet fro Fixed-Guideway General Assessment 15-9
15-7 Noise Receptor Locations....15-10
15-8 Existing Noise Levels (in dBA) at the Monitoring Locations 15-12
15-9 Future No-Build Noise Levels and total PCE Values at Receptor Locations (in dBA)....15-14
15-10 Future Build Noise Levels and total PCE Values at Receptor Locations (in dBA)....15-16
15-11 Proposed Development Attenuation Requirements....15-17
18-1 Construction Oversight in New York City 18-6
18-2 Estimated Total Number of Construction Workers, Construction Worker Vehicles, and Construction Trucks On-site Per Day....18-9
18-3 Q3 2018 Peak Construction Vehicle Trip Projections....18-11
18-4 Typical Construction Equipment Noise Emission Levels (dBA)....18-20
19-1 Summary of Lane Groups/Intersections with Significant Adverse Traffic Impacts 19-3
19-2 Proposed Traffic Mitigation Measures....19-7
19-3 Action-with-Mitigation Traffic Conditions at Impacted Intersections – Weekday AM Peak Hour....19-8
19-4 Action-with-Mitigation Traffic Conditions at Impacted Intersections – Weekday Midday Peak Hour 19-9
19-5 Action-with-Mitigation Traffic Conditions at Impacted Intersections – Weekday PM Peak Hour....19-10
19-6 Action-with-Mitigation Traffic Conditions at Impacted Intersections – Saturday Midday Peak Hour....19-11
19-7 Action-with-Mitigation Crosswalk Conditions....19-12
19-8 Action-with-Mitigation Corner Conditions....19-13
20-1 Comparison of the Lesser Density Alternative and the Proposed Action 20-9
20-2 Comparison of Existing, Proposed Action, and Lesser Density Alternative Zoning....20-12
20-3 Total Projected Lesser Density Alternative Enrollment and Utilization change for Elementary and Intermediate Schools in CSD 14, Sub-district 1 20-13
20-4 2019 Lesser Density Alternative: Open Space Ratios Summary....20-14
20-5 Comparison of Peak Hour Person Trips by Mode: Proposed Action vs. Lesser Density Alternative 20-17
20-6 Comparison of Peak Hour Vehicle Trips: Proposed Action vs. Lesser Density Alternative 20-17
20-7 Future Traffic Impact Comparison: Lesser Density Alternative vs. Proposed Action 20-18
20-8 2019 - Total Projected Enrollment and Utilization change for Elementary and Intermediate Schools in CSD 14, Sub-district 1: No Significant Adverse Schools Impacts Alternative....20-23

LIST OF FIGURES

		Following Page
1-1	Project Area Dimensions	1-1
1-2	Rezoning Area and Project Area	1-2
1-3a	Project Area Existing Conditions	1-5
1-3b	Project Area Existing Conditions	1-5
1-4	Site Photo Key	1-5
1-5	Proposed Zoning Map Amendment	1-7
1-6	Proposed Zoning Text Amendment	1-9
1-7	Applicant's Proposed Development Site Plan	1-10
1-8	Proposed Ground Floor Plan	1-10
1-9	Second Floor/Courtyard Plan	1-10
1-10	Applicant's Proposed Development Axonometric Diagram	1-10
1-11a	Illustrative View from Union Avenue	1-10
1-11b	Illustrative View from Gerry Street	1-10
1-11c	Illustrative Bird's-Eye View	1-10
1-12	Pfizer Sites Open Space Plan	1-10
1-13	RWCDS Site Plan	1-15
1-14	RWCDS Axonometric Diagram	1-15
1-15	Illustrated Site Plan	1-15
2-1	Land Use Study Area	2-1
2-2	Land Use Map	2-7
2-3	Study Area Zoning	2-9
2-4	Study Area Inclusionary Housing Designated Areas	2-9
2-5	Rezonings Approved Since 2007	2-12
2-6	Coastal Zone Boundary	2-16
2-7	1989 FEIS Map	2-17
2-8	No-Build Projects by 2019	2-18
2-9	2019 Floodplain Preliminary FIRM	2-30
2-10	NNPCC 2020s Floodplain Projections	2-30
2-11	NPCC 2050s Floodplain Projections	2-30
2-12	Illustrative Section: Building Features and 1% Annual Chance Flood Elevations	2-31
3-1	Socioeconomic Conditions Study Area	3-7
3-2	Recent Study Area Residential Developments	3-9
3-3	Protected Housing Units	3-11
4-1	Study Area Elementary and Intermediate Schools	4-4
4-2	Child Care Facilities in Study Area	4-13
4-3	Library Study Area	4-16
4-4	Census Tracts in Study Area	4-16
5-1	Open Space Study Area	5-3
5-2	Open Space Resources	5-8
5-3a	Pfizer Sites Open Space Plan	5-18
5-3b	Pfizer Sites Open Space Plan	5-18
5-3c	Pfizer Sites Open Space Plan	5-18
5-3d	Pfizer Sites Open Space Plan	5-18
5-4	Illustrated Site Plan	5-18
5-5	Second Floor/Courtyard Plan	5-21
6-1	Longest Shadow Study Area - Tier 1 and 2 Screening	6-5

6-2 Tier 3 Shadow Screening 6-6
6-3 Incremental Shadows on March 21/September 21 6-7
6-4 Incremental Shadows on May 6/August 6 6-7
6-5 Incremental Shadows on June 21 6-7
6-6 Incremental Shadows on December 21 6-7
8-1 Urban Design and Visual Resources Study Area 8-4
8-2 2014 Aerial Photo 8-5
8-3 Aerial Views 8-5
8-4 Urban Design and Visual Resources Sub-Areas 8-7
8-5 Urban Design and Visual Resources Study Area Photos 8-7
8-6a Urban Design and Visual Resources Sub-Area Photos 8-7
8-6b Urban Design and Visual Resources Sub-Area Photos 8-7
8-6c Urban Design and Visual Resources Sub-Area Photos 8-7
8-6d Urban Design and Visual Resources Sub-Area Photos 8-7
8-6e Urban Design and Visual Resources Sub-Area Photos 8-7
8-6f Urban Design and Visual Resources Sub-Area Photos 8-7
8-6g Urban Design and Visual Resources Sub-Area Photos 8-7
8-6h Urban Design and Visual Resources Sub-Area Photos 8-7
8-6i Urban Design and Visual Resources Sub-Area Photos 8-7
8-6j Urban Design and Visual Resources Sub-Area Photos 8-7
8-7 Building Heights 8-9
8-8 Building Density 8-9
8-9a Comparison of Existing and With-Action Conditions - View west from Gerry Street and Harrison Avenue 8-14
8-9b Comparison of Existing and With-Action Conditions - View north at Gerry Street, Flushing and Union avenues 8-14
8-9c Comparison of Existing and With-Action Conditions – View southwest from Walton Street and Harrison Avenue 8-14
8-9d Comparison of Existing and With-Action Conditions – View southwest from Wallabout Street and Harrison Avenue 8-14
8-9e Comparison of Existing and With-Action Conditions – View northeast from Wallabout Street and Union Avenue. 8-14
8-9f Comparison of Existing and With-Action Conditions – View southeast from Walton Street and Union Avenue 8-14
8-9g Comparison of Existing and With-Action Conditions – View northwest from the mid-block of Gerry Street 8-14
12-1 2019 Traffic Assignment 12-7
12-2 Traffic Analysis Intersections 12-8
12-3 2019 Transit Route Assignments 12-10
12-4 2019 Weekday AM/Midday Pedestrian Assignments 12-12
12-5 2019 Weekday PM/Saturday Midday Pedestrian Assignments 12-12
12-6 Pedestrian Analysis Locations 12-12
12-7a 2015 Existing AM/Midday Traffic Volumes 12-14
12-7b 2015 Existing PM/Saturday Traffic Volumes 12-14
12-8a 2019 No-Action AM/Midday Traffic Volumes 12-19
12-8b 2019 No-Action PM/Saturday Traffic Volumes 12-19
12-9a 2019 With-Action AM/Midday Traffic Volumes 12-22
12-9b 2019 With-Action PM/Saturday Traffic Volumes 12-22
13-1 Pfizer Site Proposed Developments on Blocks 2249 and 2265 13-6
13-2 Designated Area for the Stacks on Building B 13-15
13-3 Designated Area for the Stacks on Building C 13-15
13-4 Designated Area for Stacks on Building D 13-16
13-5 Designated Area for Stacks on Building F 13-17

13-6 Designated Area for Stacks on Building G 13-18
15-1 Noise Monitoring Locations 15-9
15-2 Building Attenuation Requirements....15-16
18-1a Construction Schedule 18-2
18-1b Construction Schedule 18-2
18-1c Construction Schedule 18-2
18-1d Construction Schedule 18-2
20-1 Lesser Density Alternative Illustrative Roof Plan....20-9
20-2a Comparison of Proposed Project and Lesser Density Alternative – View west from Gerry Street and Harrison Avenue 20-15
20-2b Comparison of Proposed Project and Lesser Density Alternative – View north at Gerry Street, Flushing and Union avenues....20-15
20-2c Comparison of Proposed Project and Lesser Density Alternative – View southeast from Walton Street and Union Avenue....20-15