DRAFT

UPTOWN NEWPORT ENVIRONMENTAL IMPACT REPORT

SCH NO. 2010051094

VOLUME I

prepared for:

CITY OF NEWPORT BEACH

Contact:
Rosalinh Ung
Associate Planner

prepared by:

THE PLANNING CENTER|DC&E

Contact:
JoAnn C. Hadfield
Principal, Environmental Services

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3300 Newport Boulevard
Newport Beach, CA 92658
Tel: 949.644.3208

Contact:
Rosalinh Ung
Associate Planner

prepared by:

THE PLANNING CENTER|DC&E

3 MacArthur Place, Suite 1100
Santa Ana, CA 92707
Tel: 714.966.9220 • Fax: 714.966.9221
E-mail: information@planningcenter.com
Website: www.planningcenter.com

Contact:
JoAnn C. Hadfield
Principal Environmental Services

CNB-13.0E

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Section **Page**

VOLUME I

1. EXECUTIVE SUMMARY 1-1

1.1 INTRODUCTION 1-1
1.2 ENVIRONMENTAL PROCEDURES 1-1
1.2.1 EIR Format 1-2
1.2.2 Type and Purpose of This DEIR 1-3
1.3 PROJECT LOCATION 1-4
1.4 PROJECT SUMMARY 1-4
1.5 SUMMARY OF PROJECT ALTERNATIVES 1-6
1.5.2 Alternatives Considered and Rejected During the Scoping Project/Planning Process 1-6
1.5.3 No-Project Alternative 1-7
1.5.4 Hotel/Office/Commercial Alternative 1-7
1.5.5 Office/Commercial/Residential Alternative 1-8
1.5.6 Reduced Density Alternative 1-9
1.5.7 Environmentally Superior Alternative 1-10
1.6 ISSUES TO BE RESOLVED 1-11
1.7 AREAS OF CONTROVERSY 1-11
1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION 1-12

2. INTRODUCTION 2-1

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT 2-1
2.2 NOTICE OF PREPARATION AND INITIAL STUDY 2-1
2.3 SCOPING MEETING 2-8
2.4 SCOPE OF THIS DEIR 2-10
2.4.1 Impacts Considered Less Than Significant 2-10
2.4.2 Potentially Significant Adverse Impacts 2-11
2.4.3 Unavoidable Significant Adverse Impacts 2-11
2.5 INCORPORATION BY REFERENCE 2-11
2.6 FINAL EIR CERTIFICATION 2-12
2.7 MITIGATION MONITORING 2-12

3. PROJECT DESCRIPTION 3-1

3.1 PROJECT LOCATION 3-1
3.2 PROJECT BACKGROUND 3-1
3.2.1 Planning Background 3-1
3.2.2 Related Development Proposals 3-13
3.2.3 Existing Improvements 3-13
3.3 STATEMENT OF OBJECTIVES 3-14
3.4 PROJECT CHARACTERISTICS 3-14
3.4.1 Proposed Site Plan and Land Use 3-14
3.4.2 Project Construction and Infrastructure 3-16
3.4.3 Design Guidelines and Community Character 3-33
3.5 INTENDED USES OF THE EIR 3-34

Table of Contents

Section		Page
4.	**ENVIRONMENTAL SETTING**	**4-1**
4.1	INTRODUCTION	4-1
4.2	REGIONAL ENVIRONMENTAL SETTING	4-1
4.3	LOCAL ENVIRONMENTAL SETTING	4-3
4.4	ASSUMPTIONS REGARDING CUMULATIVE IMPACTS	4-11
5.	**ENVIRONMENTAL ANALYSIS**	**5.1-1**
5.1	AESTHETICS	5.1-1
5.1.1	Environmental Setting	5.1-1
5.1.2	Thresholds of Significance	5.1-4
5.1.3	Environmental Impacts	5.1-4
5.1.4	Cumulative Impacts	5.1-22
5.1.5	Existing Regulations and Standard Conditions	5.1-23
5.1.6	Level of Significance Before Mitigation	5.1-23
5.1.7	Mitigation Measures	5.1-24
5.1.8	Level of Significance After Mitigation	5.1-24
5.2	AIR QUALITY	5.2-1
5.2.1	Environmental Setting	5.2-1
5.2.2	Thresholds of Significance	5.2-10
5.2.3	Environmental Impacts	5.2-12
5.2.4	Cumulative Impacts	5.2-26
5.2.5	Existing Regulations and Standard Conditions	5.2-26
5.2.6	Level of Significance Before Mitigation	5.2-27
5.2.7	Mitigation Measures	5.2-27
5.2.8	Level of Significance After Mitigation	5.2-29
5.3	BIOLOGICAL RESOURCES	5.3-1
5.3.1	Environmental Setting	5.3-1
5.3.2	Thresholds of Significance	5.3-5
5.3.3	Environmental Impacts	5.3-6
5.3.4	Cumulative Impacts	5.3-7
5.3.5	Existing Regulations and Standard Conditions	5.3-8
5.3.6	Level of Significance Before Mitigation	5.3-9
5.3.7	Mitigation Measures	5.3-9
5.3.8	Level of Significance After Mitigation	5.3-9
5.4	CULTURAL RESOURCES	5.4-1
5.4.1	Environmental Setting	5.4-1
5.4.2	Thresholds of Significance	5.4-5
5.4.3	Environmental Impacts	5.4-6
5.4.4	Cumulative Impacts	5.4-7
5.4.5	Existing Regulations and Standard Conditions	5.4-8
5.4.6	Level of Significance Before Mitigation	5.4-8
5.4.7	Mitigation Measures	5.4-8
5.4.8	Level of Significance After Mitigation	5.4-9
5.5	GEOLOGY AND SOILS	5.5-1
5.5.1	Environmental Setting	5.5-1
5.5.2	Thresholds of Significance	5.5-7
5.5.3	Environmental Impacts	5.5-8
5.5.4	Cumulative Impacts	5.5-12

Section **Page**

5.5.5 Existing Regulations and Standard Conditions 5.5-12
5.5.6 Level of Significance Before Mitigation 5.5-12
5.5.7 Mitigation Measures 5.5-13
5.5.8 Level of Significance After Mitigation 5.5-13
5.6 GREENHOUSE GAS EMISSIONS 5.6-1
5.6.1 Environmental Setting 5.6-1
5.6.2 Thresholds of Significance 5.6-10
5.6.3 Environmental Impacts 5.6-11
5.6.4 Cumulative Impacts 5.6-15
5.6.5 Existing Regulations and Standard Conditions of Approval 5.6-15
5.6.6 Level of Significance Before Mitigation 5.6-16
5.6.7 Mitigation Measures 5.6-16
5.6.8 Level of Significance After Mitigation 5.6-16
5.7 HAZARDS AND HAZARDOUS MATERIALS 5.7-1
5.7.1 Environmental Setting 5.7-1
5.7.2 Thresholds of Significance 5.7-15
5.7.3 Environmental Impacts 5.7-16
5.7.4 Cumulative Impacts 5.7-30
5.7.5 Existing Regulations and Standard Conditions of Approval 5.7-30
5.7.6 Level of Significance Before Mitigation 5.7-31
5.7.7 Mitigation Measures 5.7-33
5.7.8 Level of Significance After Mitigation 5.7-36
5.8 HYDROLOGY AND WATER QUALITY 5.8-1
5.8.1 Environmental Setting 5.8-1
5.8.2 Thresholds of Significance 5.8-11
5.8.3 Environmental Impacts 5.8-11
5.8.4 Cumulative Impacts 5.8-22
5.8.5 Existing Regulations and Standard Conditions of Approval 5.8-23
5.8.6 Level of Significance Before Mitigation 5.8-23
5.8.7 Mitigation Measures 5.8-23
5.8.8 Level of Significance After Mitigation 5.8-23
5.9 LAND USE AND PLANNING 5.9-1
5.9.1 Environmental Setting 5.9-1
5.9.2 Thresholds of Significance 5.9-6
5.9.3 Environmental Impacts 5.9-7
5.9.4 Cumulative Impacts 5.9-40
5.9.5 Existing Regulations and Standard Conditions of Approval 5.9-40
5.9.6 Level of Significance Before Mitigation 5.9-40
5.9.7 Mitigation Measures 5.9-41
5.9.8 Level of Significance After Mitigation 5.9-41
5.10 NOISE 5.10-1
5.10.1 Environmental Setting 5.10-1
5.10.2 Thresholds of Significance 5.10-18
5.10.3 Environmental Impacts 5.10-22
5.10.4 Cumulative Impacts 5.10-47
5.10.5 Existing Regulations and Standard Conditions 5.10-48
5.10.6 Mitigation Measures 5.10-52
5.10.7 Level of Significance After Mitigation 5.10-57

Section **Page**

5.11 POPULATION AND HOUSING 5.11-1
5.11.1 Environmental Setting 5.11-1
5.11.2 Thresholds of Significance 5.11-4
5.11.3 Environmental Impacts 5.11-5
5.11.4 Cumulative Impacts 5.11-6
5.11.5 Existing Regulations and Standard Conditions of Approval 5.11-7
5.11.6 Level of Significance Before Mitigation 5.11-7
5.11.7 Mitigation Measures 5.11-8
5.11.8 Level of Significance After Mitigation 5.11-8
5.12 PUBLIC SERVICES 5.12-1
5.12.1 Fire Protection and Emergency Medical Services 5.12-1
5.12.2 Police Protection 5.12-10
5.12.3 School Services 5.12-12
5.12.4 Library Services 5.12-24
5.13 RECREATION 5.13-1
5.13.1 Environmental Setting 5.13-1
5.13.2 Thresholds of Significance 5.13-4
5.13.3 Environmental Impacts 5.13-7
5.13.4 Cumulative Impacts 5.13-9
5.13.5 Existing Regulations and Standard Conditions of Approval 5.13-9
5.13.6 Level of Significance Before Mitigation 5.13-9
5.13.7 Mitigation Measures 5.13-9
5.13.8 Level of Significance After Mitigation 5.13-9
5.14 TRANSPORTATION AND TRAFFIC 5.14-1
5.14.1 Environmental Setting 5.14-1
5.14.2 Thresholds of Significance 5.14-18
5.14.3 Environmental Impacts 5.14-20
5.14.4 Cumulative Impacts 5.14-69
5.14.5 Existing Regulations and Standard Conditions 5.14-70
5.14.6 Level of Significance Before Mitigation 5.14-70
5.14.7 Level of Significance After Mitigation 5.14-70
5.15 UTILITIES AND SERVICE SYSTEMS 5.15-1
5.15.1 Environmental Setting 5.15-1
5.15.2 Thresholds of Significance 5.15-8
5.15.3 Environmental Impacts 5.15-9
5.15.4 Cumulative Impacts 5.15-20
5.15.5 Existing Regulations and Standard Conditions 5.15-20
5.15.6 Level of Significance Before Mitigation 5.15-21
5.15.7 Mitigation Measures 5.15-21
5.15.8 Level of Significance After Mitigation 5.15-21

6. SIGNIFICANT UNAVOIDABLE ADVERSE IMPACTS 6-1

7. ALTERNATIVES TO THE PROPOSED PROJECT 7-1

7.1 INTRODUCTION 7-1
7.1.1 Purpose and Scope 7-1
7.1.2 Project Objectives 7-2
7.1.3 Significant Impacts of the Project 7-2

Section **Page**

7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS 7-4
7.2.1 Alternative Project Location 7-4
7.2.2 Optional Project Phasing Alternative 7-5
7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS 7-6
7.4 NO PROJECT ALTERNATIVE 7-8
7.4.2 Ability to Reduce Environmental Impacts 7-15
7.4.3 Ability to Achieve Project Objectives 7-15
7.5 HOTEL/OFFICE/COMMERCIAL ALTERNATIVE 7-15
7.5.2 Environmental Assessment 7-19
7.5.3 Ability to Reduce Environmental Impacts 7-26
7.5.4 Ability to Achieve Project Objectives 7-26
7.6 OFFICE/COMMERCIAL/RESIDENTIAL ALTERNATIVE 7-27
7.6.1 Environmental Assessment 7-28
7.6.2 Ability to Reduce Environmental Impacts 7-38
7.6.3 Ability to Achieve Project Objectives 7-38
7.7 REDUCED DENSITY ALTERNATIVE 7-39
7.7.1 Ability to Reduce Environmental Impacts 7-50
7.7.2 Ability to Achieve Project Objectives 7-50
7.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE 7-50

8. IMPACTS FOUND NOT TO BE SIGNIFICANT 8-1

8.1 ASSESSMENT IN THE INITIAL STUDY 8-1

9. SIGNIFICANT IRREVERSIBLE CHANGES DUE TO THE PROPOSED PROJECT 9-1

10. GROWTH-INDUCING IMPACTS OF THE PROPOSED PROJECT 10-1

11. ORGANIZATIONS AND PERSONS CONSULTED 11-1

12. QUALIFICATIONS OF PERSONS PREPARING EIR 12-1

13. BIBLIOGRAPHY 13-1

13.1 REFERENCES 13-1
13.2 WEBSITES 13-2
13.3 PERSONAL COMMUNICATIONS 13-4

VOLUME II

APPENDICES

Appendix A: Initial Study and Notice of Preparation (NOP) and NOP Comment Letters
Appendix B: Shade/Shadow Analysis Exhibits
Appendix C: Air Quality and GHG Modeling
Appendix D: Health Risk Assessment
Appendix E: Biological Technical Report
Appendix F: Archeological and Paleontological Assessment
Appendix G: Preliminary Geologic and Geotechnical Engineering Investigation
Appendix H: Phase 1 Environmental Site Assessment; Vapor Intrusion Health Risk Assessment; City of Newport Beach Fire Department Hazards Conditions; Offsite Consequence Analysis

VOLUME III

APPENDICES

Appendix I: Preliminary Hydrology Report; Preliminary Water Quality Management Plan
Appendix J: Noise Calculations and Modeling; Noise and Vibration Impact Mitigation Memo
Appendix K: Service Provider Correspondence
Appendix L: School Impact Analysis and Mitigation Report
Appendix M: Traffic Impact Assessment
Appendix N: Water Supply Assessment
Appendix O: Sewer Flow Report

Figure **Page**

Figure 3-1 Regional Location Map 3-3
Figure 3-2 Local Vicinity 3-5
Figure 3-3 Aerial Photograph 3-7
Figure 3-4 Airport Area Planning Designations 3-9
Figure 3-5 Integrated Conceptual Development Plan 3-11
Figure 3-6 Site Plan and Phasing Plan 3-19
Figure 3-7 Conceptual Grading and Earthwork: Phase 1 and Phase 2 3-21
Figure 3-8 Phase 1 Circulation Plan 3-25
Figure 3-9 Phase 2 Circulation Plan 3-27
Figure 3-10 Storm Drainage Concept: Phase 1 and Phase 2 3-29
Figure 3-11 Proposed Water System: Phase 1 and Phase 2 3-31
Figure 3-12 Proposed Sewer System: Phase 1 and Phase 2 3-35
Figure 3-13 Illustrative Site Plan and Vision 3-37
Figure 4-1 Site Photographs 4-5
Figure 4-2 Photographs of Surrounding Uses 4-7
Figure 4-3 Approved Traffic Phasing Ordinance Projects 4-17
Figure 4-4 Cumulative Projects Location Map 4-19
Figure 5.1-1 UCI Land Use Plan for 2007 Long Range Development Plan 5.1-7
Figure 5.1-2 Building Height Limit Plan 5.1-9
Figure 5.1-3 General Project Character: Architecture and Lighting 5.1-11
Figure 5.1-4 General Project Character: Circulation and Landscaping 5.1-13
Figure 5.5-1 Fault Map 5.5-3
Figure 5.7-1 Location of Former Underground Storage Tanks 5.7-5
Figure 5.7-2 VOC Concentrations in Shallow Groundwater 5.7-7
Figure 5.7-3 Soil Gas Probe Locations (GP-1 through GP-10) 5.7-19
Figure 5.7-4 Phase 1 Site Layout and Chemical Storage Locations 5.7-23
Figure 5.8-1 Newport Bay Watershed 5.8-5
Figure 5.8-2 Existing Drainage Conditions 5.8-7
Figure 5.8-3 Orange County Main Groundwater Basin and Irvine Subbasin 5.8-9
Figure 5.8-4 Phase 1 Storm Drain Concept 5.8-13
Figure 5.8-5 Proposed Drainage Plan 5.8-17
Figure 5.10-1 Land Use Noise Compatibility Matrix 5.10-7
Figure 5.10-2 Noise Monitoring Locations 5.10-13
Figure 5.10-3 John Wayne Airport Existing Noise Level Contours 5.10-19
Figure 5.10-4 Combined Ambient Noise Levels, Phase 1 ..... 5.10-31
Figure 5.10-5 Combined Ambient Noise Levels, Phase 2 ..... 5.10-33
Figure 5.10-6 Nearest Offsite Noise- and Vibration-Sensitive Receptors 5.10-37
Figure 5.10-7 John Wayne Airport Future Noise Level Contours 5.10-49
Figure 5.12-1 Fire and Police Facilities Map 5.12-3
Figure 5.12-2 SAUSD and NMUSD Boundaries 5.12-13
Figure 5.13-1 Service Area 4 Recreation and Open Space Plan 5.13-5
Figure 5.14-1 Study Intersections 5.14-3
Figure 5.14-2 Existing Lane Configurations and Traffic Controls 5.14-5
Figure 5.14-3 Bus Routes Currently Operated in the Project Study Area 5.14-7
Figure 5.14-4 Trip Distribution (Existing) 5.14-25
Figure 5.14-5 Trip Distribution (Proposed) 5.14-27
Figure 7-1 Hotel/Office/Commercial Alternative Site Plan and Phasing Plan. 7-17
Figure 7-2 Office/Commercial/Residential Alternative Site Plan and Phasing Plan. 7-29
Figure 7-3 Reduced Density Alternative. 7-41

List of Tables

Table		Page
Table 1-1	Uptown Newport Land Use Summary	1-5
Table 1-2	Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation	1-13
Table 2-1	NOP Comment Summary	2-2
Table 2-2	Scoping Meeting Comment Summary	2-8
Table 3-1	ICDP Unit Allocation Summary	3-2
Table 3-2	Uptown Newport Land Use Summary	3-15
Table 3-3	Construction Schedule and Duration	3-17
Table 3-4	Earthwork/Material Quantities and Construction Trips	3-17
Table 4-1	Approved Projects per Newport Beach Traffic Phasing Ordinance	4-13
Table 4-2	Cumulative Projects	4-14
Table 5.2-1	Ambient Air Quality Standards for Criteria Pollutants	5.2-6
Table 5.2-2	Attainment Status of Criteria Pollutants in the South Coast Air Basin	5.2-8
Table 5.2-3	Ambient Air Quality Monitoring Summary	5.2-9
Table 5.2-4	SCAQMD Significance Thresholds	5.2-10
Table 5.2-5	SCAQMD Localized Significance Thresholds	5.2-11
Table 5.2-6	SCAQMD Toxic Air Contaminants Incremental Risk Thresholds	5.2-12
Table 5.2-7	Maximum Daily Construction Regional Emissions, Phase 1	5.2-15
Table 5.2-8	Maximum Daily Construction Regional Emissions, Phase 2	5.2-16
Table 5.2-9	Maximum Daily Construction Regional Emissions, Summary	5.2-17
Table 5.2-10	Maximum Daily Operational Phase Regional Emissions, Phase 1	5.2-19
Table 5.2-11	Maximum Daily Operational Phase Regional Emissions, Phase 2	5.2-20
Table 5.2-12	Maximum Daily Operational Phase Regional Emissions, Total	5.2-21
Table 5.2-13	Maximum Daily Onsite Construction Localized Emissions, Phase 1 (Portion)	5.2-22
Table 5.2-14	Maximum Daily Onsite Construction Localized Emissions, Phase 1 (Portion) and Phase 2	5.2-23
Table 5.2-15	Health Risk Assessment	5.2-25
Table 5.2-16	Maximum Daily Construction Regional Emissions, Summary with Mitigation	5.2-30
Table 5.2-17	Maximum Daily Onsite Construction Localized Emissions. Phase 1 and Phase 2 Overlap with Mitigation	5.2-31
Table 5.5-1	Estimated Grading Volume and Net Export Volume in Cubic Yards	5.5-8
Table 5.5-2	Estimated Material Export from Site, cubic yards	5.5-9
Table 5.5-3	Construction BMPs	5.5-11
Table 5.6-1	Greenhouse Gases and Their Relative Global Warming Potential Compared to CO_2	5.6-2
Table 5.6-2	Summary of Global Climate Change Risks to California	5.6-4
Table 5.6-3	Scoping Plan Greenhouse Gas Reduction Measures and Reductions toward 2020 Target	5.6-7
Table 5.6-4	Project-Related GHG Emissions, Existing	5.6-9
Table 5.6-5	Project-Related GHG Emissions, Phase 1	5.6-12
Table 5.6-6	Project-Related GHG Emissions – Phase 2	5.6-13
Table 5.6-7	Project-Related GHG Emissions, Total	5.6-14
Table 5.7-1	Environmental History of Project Site	5.7-3
Table 5.7-2	Concentrations of Contaminants in Soil Gases above Regulatory Screening Levels	5.7-17
Table 5.7-3	Risk Assessment Results and Conclusions: Assessment of Vapor	

Table **Page**

Intrusion Risks for Future Residents of Phase 1 ..... 5.7-18
Table 5.7-4 Chemical Usage at TowerJazz 5.7-22
Table 5.7-5 Chemical Locations and Maximum Container Amounts 5.7-22
Table 5.7-6 Offsite Consequence Analysis Results 5.7-26
Table 5.8-1 Site Drainage Rates and Volumes, Existing Conditions 5.8-3
Table 5.8-2 Water Quality Impairments and Total Maximum Daily Loads for Receiving Waters 5.8-4
Table 5.8-3 Site Drainage Rates and Volumes 5.8-15
Table 5.8-4 Pollutants of Concern 5.8-19
Table 5.9-1 General Plan Consistency Analysis 5.9-11
Table 5.9-2 SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Goals Consistency Analysis 5.9-38
Table 5.10-1 Change in Apparent Loudness 5.10-2
Table 5.10-2 Typical Noise Levels 5.10-3
Table 5.10-3 City of Newport Beach Exterior Noise Standards (L_{eq}) 5.10-5
Table 5.10-4 City of Newport Beach Incremental Noise Impact Criteria for Noise-Sensitive Uses (dBA CNEL) 5.10-6
Table 5.10-5 Groundborne Vibration Criteria: Human Annoyance 5.10-11
Table 5.10-6 Groundborne Vibration Criteria: Architectural Damage 5.10-11
Table 5.10-7 Short-Term Noise Measurements 5.10-15
Table 5.10-8 Long-Term Noise Measurements 5.10-16
Table 5.10-9 Existing Conditions Traffic Noise Levels 5.10-17
Table 5.10-10 Project-Related Traffic Noise Increases, Existing Conditions 5.10-23
Table 5.10-11 Project-Related Traffic Noise, Phase1 ..... 5.10-24
Table 5.10-12 Project-Related Traffic Noise, Phase 2 ..... 5.10-25
Table 5.10-13 Phase 1 (2018) Combined Noise Levels (dBA CNEL) 5.10-29
Table 5.10-14 Phase 2 (2021) Combined Noise Level (dBA CNEL) 5.10-30
Table 5.10-15 Construction Equipment Vibration Levels 5.10-35
Table 5.10-16 Vibration Levels for Construction Equipment during Phase 1 (VdB) 5.10-36
Table 5.10-17 Vibration Levels for Construction Equipment during Phase 2 ..... 5.10-39
Table 5.10-18 Construction Equipment Noise Levels 5.10-41
Table 5.10-19 Maximum Noise Levels at Project Construction Sites during Phase 1 Construction (dBA L_{max}) 5.10-43
Table 5.10-20 Average Noise Levels at Project Construction Sites during Phase 1 Construction (dBA L_{eq}) 5.10-44
Table 5.10-21 Maximum Noise Levels at Project Construction Sites During Phase 2 Construction (dBA L_{max}) 5.10-45
Table 5.10-22 Average Noise Levels at Project Construction Sites During Phase 2 Construction (dBA Leq) 5.10-46
Table 5.11-1 2012 Adopted RTP Population, Housing, and Employment Projections for Newport Beach, 2008–2035 ..... 5.11-1
Table 5.11-2 2012 Adopted RTP Population, Housing, and Employment Projections for Southern California Region and Orange County, 2008–2035 ..... 5.11-1
Table 5.11-3 Newport Beach Housing Trends, 2000–2007 ..... 5.11-3
Table 5.11-4 Housing Unit Mix, 2007 ..... 5.11-3
Table 5.11-5 2012 Adopted RTP Population, Housing, and Employment Projections for Newport Beach, 2008–2035 (with project) 5.11-5
Table 5.11-6 Projected Cumulative Housing, Employment, and Population Growth 5.11-6

List of Tables

Table		Page
Table 5.12-1	Local Fire Stations – Equipment and Staffing	5.12-2
Table 5.12-2	NBFD Response Time Goals	5.12-2
Table 5.12-3	Residents Generated by Project Phase	5.12-6
Table 5.12-4	Growth Estimates for City of Newport Beach	5.12-8
Table 5.12-5	Santa Ana Unified School District Overall Capacity (2011–2012)	5.12-12
Table 5.12-6	Santa Ana Unified School District Schools near Project Site (2011–2012)	5.12-15
Table 5.12-7	Newport Mesa Unified School District Overall Capacity (2011–2012)	5.12-15
Table 5.12-8	Newport Mesa Unified School District Schools near Project Site (2011–2012)	5.12-15
Table 5.12-9	Student Generation Rates for Proposed Project	5.12-18
Table 5.12-10	Estimated Student Population	5.12-19
Table 5.12-11	Student Generation by Cumulative Projects	5.12-22
Table 5.12-12	Newport Beach Public Libraries	5.12-24
Table 5.13-1	Service Area 4 Recreational Amenities	5.13-4
Table 5.13-2	Required Parkland Compared to Parkland Provided	5.13-7
Table 5.13-3	Dedicated Park Minimum Acreage	5.13-8
Table 5.14-1	Local Intersection Evaluation Levels of Service Descriptions	5.14-11
Table 5.14-2	State Highway Intersection Evaluation Levels of Service Descriptions	5.14-12
Table 5.14-3	Summary of Intersection Operations Existing Conditions	5.14-14
Table 5.14-4	Summary of State Highway Intersection Operations Existing Conditions	5.14-16
Table 5.14-5	Summary of Freeway Mainline Operations Existing Conditions	5.14-17
Table 5.14-6	Summary of Phase 1 Trip Generation	5.14-22
Table 5.14-7	Summary of Full Project Trip Generation	5.14-23
Table 5.14-8	Summary of Intersection Operations Existing plus Project Conditions	5.14-29
Table 5.14-9	Summary of Freeway Mainline Operations Existing plus Project Conditions (Phases 1 and 2)	5.14-35
Table 5.14-10	Summary of Intersection Operations Year 2018 Cumulative Conditions with Phase I	5.14-37
Table 5.14-11	Summary of Intersection Operations Year 2021 Cumulative Conditions with Phase 2 (Project Buildout)	5.14-43
Table 5.14-12	Summary of Intersection Operations Year 2018 TPO Analysis	5.14-49
Table 5.14-13	Summary of State Highway Intersection Operations Year 2018 Cumulative with Phase 1	5.14-55
Table 5.14-14	Summary of State Highway Intersection Operations Year 2021 Cumulative with Phase 2	5.14-59
Table 5.14-15	Summary of Freeway Mainline Operation 2018 Cumulative Conditions without Project	5.14-62
Table 5.14-16	Peak Hour Freeway Mainline Operation 2018 Cumulative Conditions with Phase 1	5.14-63
Table 5.14-17	Peak Hour Freeway Mainline Operation 2021 Cumulative Conditions without Project	5.14-64
Table 5.14-18	Peak Hour Freeway Mainline Operation Year 2021 with Project Phase 2	5.14-65
Table 5.14-19	Phase 1 Construction Traffic	5.14-68
Table 5.14-20	Phase 2 Construction Traffic	5.14-69
Table 5.15-1	Current and Projected IRWD Water Supplies and Demands without Project (AFY)	5.15-2
Table 5.15-2	Current and Projected IRWD Water Supplies and Demands for Single-Year Dry Scenario without Project (AFY)	5.15-3

Table **Page**

Table 5.15-3 Current and Projected IRWD Water Supplies and Demands for Multiple-Year Dry Scenarios without Project (AFY) 5.15-3
Table 5.15-4 Existing Sewer Capacity 5.15-4
Table 5.15-5 Existing Onsite Wastewater Generation 5.15-5
Table 5.15-6 Daily Intake and Remaining Capacity for the Frank R. Bowerman Landfill 5.15-6
Table 5.15-7 Existing Solid Waste Generation on Project Site 5.15-6
Table 5.15-8 Projected Sewer Capacity with Project 5.15-10
Table 5.15-9 OCSD Wastewater Treatment Capacity, with Project 5.15-11
Table 5.15-10 Project Water Demand: Phase 1 ..... 5.15-12
Table 5.15-11 Project Water Demand: Phase 2 and Project Buildout 5.15-13
Table 5.15-12 Current and Projected IRWD Potable Water Supplies and Demands with Project (AFY) 5.15-14
Table 5.15-13 Current and Projected IRWD Potable Water Supplies and Demands for Single-Year Dry Scenario, with Project, in AFY 5.15-15
Table 5.15-14 Current and Projected IRWD Potable Water Supplies and Demands for Multiple-Year Dry Scenarios, with Project, in AFY 5.15-15
Table 5.15-15 Current and Projected IRWD Normal Year Nonpotable Water Supplies and Demands with Project (AFY) 5.15-16
Table 5.15-16 Proposed Project Solid Waste Generation: Phase 1 ..... 5.15-18
Table 5.15-17 Proposed Project Solid Waste Generation: Phase 2 ..... 5.15-18
Table 5.15-18 Proposed Project Electricity and Natural Gas Generation: Phase 1 ..... 5.15-19
Table 5.15-19 Proposed Project Electricity and Natural Gas Generation: Phase 2 ..... 5.15-20
Table 7-1 Statistical Summary Comparison 7-7
Table 7-2 Trip Generation Comparison 7-8
Table 7-3 Utility/Service System Needs Comparison – No Project Alternative 7-14
Table 7-4 Hotel/Office/Commercial Alternative Trip Generation 7-16
Table 7-5 Office/Commercial/Residential Alternative Trip Generation 7-28
Table 7-6 Reduced Density Alternative Trip Generation 7-40
Table 7-7 Summary of Impacts of Alternatives Compared to the Proposed Project 7-51
Table 7-8 Alternatives Ability to Achieve Project Objectives 7-52
Table 8-1 Impacts Found Not to Be Significant 8-1

Abbreviations and Acronyms

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
ADT	average daily traffic
AELUP	airport environs land use plan
AFY	acre-feet per year
ALUC	airport land use commission
AMP	Allen McColloch Pipeline
amsl	above mean sea level
AQMP	air quality management plan
BAU	business as usual
bgs	below ground surface
BMP	best management practices
BP	(years) before present
CAA	Clean Air Act
Cal/EPA	California Environmental Protection Agency
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officer's Association
CARB	California Air Resources Board
CAT	Climate Action Team
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDWR	California Department of Water Resources
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFD	community facilities districts
cfs	cubic feet per second
CHHSL	California Human Health Screening Levels
CMP	congestion management program

CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2e	carbon dioxide equivalent
Corps	United States Army Corps of Engineers
CPUC	California Public Utilities Commission
cREL	chronic reference exposure levels
CSO	combined sewer overflows
CUPA	certified unified program agency
CWA	Clean Water Act
cy	cubic yards
DATS	deep aquifer treatment system
dB	decibel
dBA	A-weighted decibel
DEIR	draft environmental impact report
DPM	diesel particulate matter
DRWF	Dyer Road Wellfield
EHD	Orange County Environmental Health Division
EIR	environmental impact report
EOCF	East Orange County Feeder
EPA	Environmental Protection Agency (federal)
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	environmental site assessment
ESL	environmental screening level
FAA	Federal Aviation Administration
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
g	acceleration of gravity
GHG	greenhouse gases
gpd	gallons per day
gpm	gallons per minute
GWP	global warming potential
GWRS	groundwater replenishment system

HAP	hazardous air pollutant
HCP	habitat conservation plan
HHRA	human health risk assessment
HRA	health risk assessment
HVAC	heating, ventilating, and air conditioning system
Hz	Hertz
ICDP	Airport Business Area Integrated Conceptual Development Plan
IPCC	Intergovernmental Panel on Climate Change
IRIS	Integrated Risk Information System (EPA)
IRWD	Irvine Ranch Water District
JWA	John Wayne Airport
L_{eq}	equivalent continuous noise level
L_{max}	maximum noise level
L_{min}	minimum noise level
LACM	Natural History Museum of Los Angeles County
LBP	lead-based paint
LCFS	Low-Carbon Fuel Standard
LEPC	local emergency planning committee
LID	low impact development
LOS	level of service
LRDP	long range development plan
LST	localized significance thresholds
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MMI	modified Mercalli intensity
MMTons	million metric tons
MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MTons	metric ton
MWD	Metropolitan Water District
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NBFD	Newport Beach Fire Department

NBPD	Newport Beach Police Department
NBPL	Newport Beach Public Library
NCCP	natural communities conservation plan
NHPA	National Habitat Preservation Authority
NMUSD	Newport-Mesa Unified School District
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
O_3	ozone
OCF	Orange County Feeder
OCSD	Orange County Sanitation District
OEHHA	Office of Environmental Health Hazard Assessment (state)
Pb	lead
PC	planned community
PCDP	planned community development plan
PCE	perchloroethylene
PM	particulate matter
POTW	publicly owned treatment works
ppm	parts per million
PPV	peak particle velocity
RCP	reinforced concrete pipe
REC	recognized environmental condition
RfC	reference concentration
RHNA	regional housing needs assessment
RMS	root mean square
RPS	renewable portfolio standard
RTP	regional transportation plan
RWQCB	regional water quality control board
SAUSD	Santa Ana Unified School District
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison

SCGC	Southern California Gas Company
SCS	Sustainable Communities Strategy
SFNA	school facilities needs analysis
SGR	student generation rate
SIP	state implementation plan
SLM	sound level meter
SO_x	sulfur oxides
SoCAB	South Coast Air Basin
SPL	sound pressure level
SRA	source receptor area
STC	sound transmission class
SVE	soil vapor extraction
SWP	State Water Project
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TCE	trichloroethylene
TMDL	total maximum daily load
TTCP	traditional tribal cultural places
UCI	University of California, Irvine
USFWS	US Fish and Wildlife Service
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
V/C	volume-to-capacity ratio
VdB	velocity decibels
VMT	vehicle miles travelled
VOC	Volatile Organic Compounds
WQMP	Water Quality Management Plan
WRMP	water resources master plan

1. Executive Summary

1.1 INTRODUCTION

This Draft Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Uptown Newport project. The California Environmental Quality Act (CEQA) requires that local government agencies, prior to taking action on projects over which they have discretionary approval authority, consider the environmental consequences of such projects. An Environmental Impact Report (EIR) is a public document designed to provide the public and local and state governmental agency decision-makers with an analysis of potential environmental consequences to support informed decision-making. This document focuses on those impacts determined to be potentially significant as discussed in the Initial Study completed for this project (see Appendix A).

This DEIR has been prepared pursuant to the requirements of CEQA and the City of Newport Beach's CEQA procedures. The City of Newport Beach, as the lead agency, has reviewed and revised as necessary all submitted drafts, technical studies, and reports to reflect its own independent judgment, including reliance on applicable City technical personnel from other departments and review of all technical subconsultant reports.

Data for this DEIR was obtained from onsite field observations, discussions with affected agencies, analysis of adopted plans and policies, review of available studies, reports, data and similar literature, and specialized environmental assessments (aesthetics, air quality, biological resources, cultural resources, geological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems).

1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals. The six main objectives of this document as established by CEQA are listed below:

1) To disclose to decision makers and the public the significant environmental effects of proposed activities.

2) To identify ways to avoid or reduce environmental damage.

3) To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.

4) To disclose to the public reasons for agency approval of projects with significant environmental effects.

5) To foster interagency coordination in the review of projects.

6) To enhance public participation in the planning process.

An EIR is the most comprehensive form of environmental documentation identified in CEQA and the CEQA Guidelines and provides the information needed to assess the environmental consequences of a proposed project, to the extent feasible. EIRs are intended to provide an objective, factually supported, full-disclosure analysis of the environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

An EIR is also one of various decision-making tools used by a lead agency to consider the merits and disadvantages of a project that is subject to its discretionary authority. Prior to approving a proposed project, the lead agency must consider the information contained in the EIR, determine whether the EIR was properly prepared in accordance with CEQA and the CEQA Guidelines, determine that it reflects the independent judgment of the lead agency, adopt findings concerning the project's significant environmental impacts and alternatives, and adopt a Statement of Overriding Considerations if the proposed project would result in a significant impact or impacts that cannot be avoided.

1.2.1 EIR Format

This DEIR has been formatted as described below.

Section 1. Executive Summary: Summarizes the background and description of the proposed project, the format of this EIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the project.

Section 2. Introduction: Describes the purpose of this EIR, background on the project, the Notice of Preparation, the use of incorporation by reference, and Final EIR certification.

Section 3. Project Description: A detailed description of the project, the objectives of the proposed project, the project area and location, approvals anticipated to be included as part of the project, the necessary environmental clearances for the project, and the intended uses of this EIR.

Section 4. Environmental Setting: A description of the physical environmental conditions in the vicinity of the project as they existed at the time the Notice of Preparation was published, from both a local and regional perspective. The environmental setting provides baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed project.

Section 5. Environmental Analysis: Provides, for each environmental parameter analyzed, a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance of the adverse impacts of the project after mitigation is incorporated, and the potential cumulative impacts associated with the proposed project and other existing, approved, and proposed development in the area.

Section 6. Significant Unavoidable Adverse Impacts: Describes the significant unavoidable adverse impacts of the proposed project.

Section 7. Alternatives to the Proposed Project: Describes the impacts of the alternatives to the proposed project, including the No Project Alternative and a Reduced Intensity Alternative.

Section 8. Impacts Found Not to Be Significant: Briefly describes the potential impacts of the project that were determined not to be significant by the Initial Study and were therefore not discussed in detail in this EIR.

Section 9. Significant Irreversible Changes Due to the Proposed Project: Describes the significant irreversible environmental changes associated with the project.

Section 10. Growth-Inducing Impacts of the Project: Describes the ways in which the proposed project would cause increases in employment or population that could result in new physical or environmental impacts.

Section 11. Organizations and Persons Consulted: Lists the people and organizations that were contacted during the preparation of this EIR for the proposed project.

Section 12. Qualifications of Persons Preparing the EIR: Lists the people who prepared this EIR for the proposed project.

Section 13. Bibliography: A bibliography of the technical reports and other documentation used in the preparation of this EIR for the proposed project.

Appendices. The appendices for this document (presented in PDF format on a CD attached to the front cover) contain the following supporting documents:

- Appendix A: Initial Study and Notice of Preparation (NOP) and NOP Comment Letters
- Appendix B: Shade/Shadow Analysis Exhibits
- Appendix C: Air Quality and GHG Modeling
- Appendix D: Health Risk Assessment
- Appendix E: Biological Technical Report
- Appendix F: Archeological and Paleontological Assessment
- Appendix G: Preliminary Geologic and Geotechnical Engineering Investigation
- Appendix H: Phase 1 Environmental Site Assessment; Vapor Intrusion Health Risk Assessment; City of Newport Beach Fire Department Hazards Conditions; Offsite Consequence Analysis
- Appendix I: Preliminary Hydrology Report; Preliminary Water Quality Management Plan
- Appendix J: Noise Calculations and Modeling; Noise and Vibration Impact Mitigation Memo
- Appendix K: Service Provider Correspondence
- Appendix L: School Impact Analysis and Mitigation Report
- Appendix M: Traffic Impact Assessment
- Appendix N: Water Supply Assessment
- Appendix O: Sewer Flow Report

1.2.2 Type and Purpose of This DEIR

This DEIR has been prepared as a “project EIR” as defined by State CEQA Guidelines (Section 15161, California Code of Regulations, Title 14, Division 6, Chapter 3). This type of EIR examines the environmental impacts of a specific development project and should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, demolition, construction, and operation.

1.3 PROJECT LOCATION

The 25.05-acre project site is within the Airport Area of the City of Newport Beach, County of Orange, California. It is situated approximately 0.6 mile southeast of John Wayne Airport and occupies Assessor's Parcel Nos. 445-131-02 and 445-131-03. It is located on the west side of Jamboree Road, between Birch Street and the intersection of Von Karman Avenue and MacArthur Boulevard. The two existing onsite industrial buildings are at 4311 and 4321 Jamboree Road.

Regional access to the site is from State Route 73 (SR-73) via Jamboree Road, as shown in Figure 3-1, *Regional Location*, in Chapter 3, *Project Description*. Vehicular access to the site is from Jamboree Road, Birch Street, and Von Karman Avenue. MacArthur Boulevard and Von Karman Avenue pass west of the site, and Birch Street passes to the north.

1.4 PROJECT SUMMARY

Project Objectives

The following objectives have been established for the Uptown Newport project and will aid decision makers in their review of the project and associated environmental impacts:

- Implement the goals and policies that the Newport Beach General Plan has established for the Airport Area and the Integrated Conceptual Plan Development Plan.
- Develop a mixed-use residential village characterized by a diversity of building and housing types that is consistent with the prescribed minimum density of 30 dwelling units and maximum of 50 dwelling units per net acre average over the 25.05 acre project site.
- Develop up to 11,500 square feet of retail commercial uses to serve local residents, businesses and visitors.
- Provide housing in close proximity to jobs and supporting services, with pedestrian-oriented amenities that facilitate walking and enhance livability.
- Integrate neighborhood parks inter-connected by pedestrian walkways to encourage a sense of community.
- Develop an attractive, viable project that yields a reasonable return on investment.
- Provides for the phased transition from existing industrial and office uses to a mixed-use residential village.
- Provide beneficial site and improvements including implementing a Water Quality Management Plan.

Proposed Site Plan and Land Use

At buildout, Uptown Newport is intended to be a multifamily residential community with neighborhood-serving retail uses. The project site is within the Airport Business Area, for which the Airport Business Area Integrated Conceptual Development Plan has been implemented (General Plan Land Use Policy LU 6.15.11). Consistent with the ICDP and allocated residential units and commercial square footage, the site plan

includes up to 1,244 residential units, 11,500 square feet of retail and 2 acres of planned park area. The land use summary by phase is summarized in Table 1-1, *Land Use Summary.*

Table 1-1
Uptown Newport Land Use Summary

	Phase 1	Phase 2	Total
Number of Units	680	564	1,244
Developable Area (ac.)	8.65	10.02	18.67
Park Area (ac.)	1.03	1.02	2.05
Retail (sf)	11,500	0	11,500
Right of Way Area (ac.)	2.61	1.72	4.33
Total Area (ac.)	**12.29**	**12.76**	**25.05**

Housing

A variety of housing developments are anticipated. Residential product types would be for sale and rent with a mix of apartments, townhouses, and condominiums. Residential buildings may include low-rise row-houses and 4- and 5-story apartments or condominiums featuring a range of floor plan sizes. Mid-rise to high-rise buildings are also envisioned. High rise buildings would not exceed 150 feet in height. Live-work units would also be a permitted use. Of the total 1,244 residential units, up to 184 units would be set aside for affordable housing.

Commercial

A retail component would provide neighborhood-serving retail and services. Permitted uses would include but not be limited to restaurants, retail uses such as bakeries, clothing/boutique shops, jewelry, and convenience stores. Business, medical, dental, and professional offices would be permitted uses as well as personal service uses such as dry cleaners, hair salons, optometry, and postal services. The permitted and conditional uses for Uptown Newport are detailed in the Land Uses, Development Standards and Procedures section of the PC Development Plan.

Parks

The two 1-acre minimum park areas would be principal focal points for the development. The parks would be privately maintained but publicly accessible. In addition to the neighborhood parks, public open space areas, private open space area, and ancillary amenities would be provided to serve residents and visitors.

General Phasing

The project would be developed in two primary phases. The first phase is projected to commence in 2013 and be completed by 2018. Timing for Phase 2 would be contingent on the existing lease of the TowerJazz building, which is currently set to expire in March 2017, but could be extended to as late as March 2027. This DEIR conservatively assumes that Phase 2 could commence as early as spring 2017 with buildout through 2021.

The operation of the TowerJazz facility, an existing semiconductor manufacturing facility, is expected to continue as an interim use after the development of Phase 1. This DEIR, therefore, addresses the potential impacts of the Phase 1 development (an interim condition with 680 residential units and 11,500 square feet

of commercial uses) operating adjacent to the TowerJazz facility. Similarly, an SCE substation at the northwest corner of Fairchild Road and Jamboree Road would remain after Phase 1 development and be eliminated during Phase 2 development.

1.5 SUMMARY OF PROJECT ALTERNATIVES

The CEQA Guidelines (Section 15126.6[a]) state that an EIR must address "a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives." The alternatives were based, in part, on their potential ability to reduce or eliminate the following impacts determined to be significant and unavoidable for the proposed project:

Air Quality

Phase 1

- **Impact 5.2-2:** Short-term construction-related emissions for both Phase 1 and Phase 2.

Land Use

- **Impact 5.9-3:** A determination of consistency with the Airport Environs Land Use Plan (AELUP) for John Wayne Airport (JWA) is pending, and until finalized, this impact is potentially significant and unavoidable.

Noise

- **Impact 5.10-6:** Construction-related noise impacts for both Phase 1 and Phase 2.

As described in Chapter 7, *Alternatives*, of this DEIR, four project alternatives were identified and analyzed for relative impacts compared to the proposed project:

- No Project Alternative
- Hotel/Office/Commercial Alternative
- Office/Commercial/Residential Alternative
- Reduced Density Alternative

Please refer to Chapter 7 for a complete discussion of how the alternatives were selected and the relative impacts associated with each alternative. The following presents a summary of each of the alternatives analyzed in the DEIR and those considered and rejected from further review.

1.5.2 Alternatives Considered and Rejected During the Scoping Project/Planning Process

The following alternatives were considered but not carried through for analysis in the EIR:

- Alternative Project Location – the summary evaluates the potential for an alternate site within the City Limits to accommodate a development similar to the proposed project without requiring a General Plan Amendment. No candidate sites were determined to meet this criteria.

- Optional Project Phasing Alternative - This alternative was considered for its potential to reduce or eliminate significant impacts related to the concurrent operation of the TowerJazz facility adjacent to Phase 1 residences that would occur under the proposed project. Although this alternative would eliminate significant impacts related to the proximity Phase 1 residents to the TowerJazz operation, these impacts are mitigated to less than significant under the project. This alternative was also deemed to be economically infeasible.

1.5.3 No-Project Alternative

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the "No Project" alternative. Under the No Project Alternative, no development would occur on the project site, the existing buildings and structures onsite (TowerJazz building, Half Dome building, and Southern California Edison substation) would remain and not be demolished, and the TowerJazz facility would continue operating. All other site improvements (e.g., parking areas, landscaping, sidewalks) would also remain in their existing condition. It is assumed for this alternative that the TowerJazz facility would remain onsite and operate indefinitely.

In comparison to the proposed project, the No Project Alternative would reduce impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, noise and vibration, public services, and recreation. This alternative would eliminate the significant unavoidable construction-related impacts for air quality and noise, as well as the potentially significant land use and planning impact related to a consistency finding for the AELUP required for the Uptown Newport project. Aesthetic and transportation and traffic impacts under this alternative would be similar to the proposed project. GHG impacts would be substantially greater for the No Project Alternative, and population/housing, and utilities/services impacts would also be greater than the proposed project. Overall, the No Project Alternative would have less environmental impact than the proposed project and would eliminate all of its significant, unavoidable impacts.

1.5.4 Hotel/Office/Commercial Alternative

This alternative was selected for its potential to eliminate impacts associated with the adjacency of residential uses to the operating TowerJazz manufacturing facility during Phase 1. Land use incompatibility concerns associated with the proximity of residential uses to TowerJazz include noise and hazards. Other impacts that could potentially be reduced by this alternative, although not determined significant for the proposed project, were anticipated to be aesthetics, air quality, and health risk (TowerJazz air emissions).

Under this alternative, Phase 1 would include up to 174 hotel rooms (including conference, banquet facility, etc.) and Phase 2 would provide up to 160,000 square feet of office uses and 20,000 square feet of commercial uses. This alternative could potentially include subterranean parking for one or more of the uses.

Phase 1

The Half Dome building and other associated site improvements, including parking areas, landscaped and common areas, and other hardscape improvements, would be demolished. Upon demolition, this phase would include the development of up to 174 hotel rooms (including conference, banquet facility, etc.) and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The hotel rooms could be accommodated within low- and midrise buildings with a maximum building height of 75 feet.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area, and other remaining site improvements would be demolished to develop 160,000 square feet of office uses and 20,000 square feet of commercial uses and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The office and commercial uses could be accommodated within low- and midrise buildings with a maximum building height of 75 feet.

In comparison to the proposed project, the Hotel/Office/Commercial Alternative would have lower impacts to air quality, GHG, hazards, noise, public services, recreation, and utilities and services. It would comply with California Fire Code (CFC) Section 2704.1.1 (Amendment) since it would not locate residents adjacent to extremely dangerous chemicals, and thus would eliminate a significant impact (prior to mitigation) associated with the project as proposed. This impact, however, would be mitigated to less than significant, so the Hotel/Office/Commercial Alternative would not eliminate a significant, unavoidable impact. Land use and planning, and population and housing impacts for this alternative would be greater than the proposed project, and aesthetics, biological resource, cultural resources, geology and soils impacts, and hydrology/water quality impacts would be similar.

1.5.5 Office/Commercial/Residential Alternative

This alternative was selected for its potential to eliminate impacts associated with the adjacency of residential uses to the operating TowerJazz manufacturing facility during Phase 1 while still providing residential uses in Phase 2. Land use incompatibility concerns associated with the proximity of residential uses to TowerJazz include noise and hazards. Other impacts that could potentially be reduced by this alternative, although not determined significant for the proposed project, were anticipated to be aesthetics, air quality, and health risk (TowerJazz air emissions).

This alternative would include the development of office, commercial, and residential uses. More specifically, Phase 1 would include up to 100,000 square feet of office uses and 7,000 square feet of commercial uses and Phase 2 would include up to 830 dwelling units. This alternative could potentially include subterranean parking for one or more of the uses.

Phase 1

Phase 1 would include demolition of the Half Dome building and other associated site improvements, including parking areas, landscaped and common areas, and other hardscape improvements. Upon demolition, this phase would include the development of up to 100,000 square feet of office uses and 7,000 square feet of commercial uses and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The office and commercial uses could be accommodated within low- and midrise buildings with a maximum building height of 75 feet. The commercial land use has been situated with frontage on Jamboree Road, and might encompass restaurant uses as with the proposed project.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area, and other remaining site improvements would be demolished to develop up to 830 dwelling units and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. As with the proposed project, a variety of housing developments could be anticipated under this alternative. Residential product types could be for sale and/or rent with a mix of apartments, townhouses, and condominiums. Residential buildings may

include low-rise row houses and four- and five-story apartments or condominiums featuring a range of floor plan sizes. Mid- to high-rise buildings are also envisioned. Midrise buildings would not exceed 75 feet in height and high-rise buildings would not exceed 150 feet in height.

Phase 2 would also include a 1.02-acre neighborhood park similar to proposed project. The park would be privately maintained and publicly accessible. In addition to the neighborhood park, public open space areas, private open space area, and ancillary amenities would be provided to serve residents and visitors, and paseo and walkway connections would be provided onsite and to surrounding areas.

In comparison to the proposed project, the Hotel/Office/Commercial Alternative would have lower impacts to air quality, GHG, hazards, noise, public services, recreation, and utilities and services. It would comply with CFC Section 2704.1.1 (Amendment) since it would not locate residents adjacent to extremely dangerous chemicals, and thus would eliminate a significant impact (prior to mitigation) associated with the project as proposed. This impact, however, would be mitigated to less than significant, so it would not eliminate a significant, unavoidable impact. Land use and planning, and population and housing impacts for this alternative would be greater than the proposed project, and aesthetics, biological resource, cultural resources, geology and soils impacts, and hydrology/water quality impacts would be similar.

1.5.6 Reduced Density Alternative

This alternative evaluates the minimum number of residential units that could be developed on the project site and still comply with the 30 dwelling units/acre minimum density prescribed for the site in the City's General Plan and the ICDP. Based on an estimated, net developable 12.34 acres for the site, 561 units could be developed: 260 dwelling units in Phase 1 and 301 in Phase 2. As with the proposed project, this alternative is assumed to include 11,500 square feet of commercial use in Phase 1.

As with the proposed project, a variety of housing developments could be anticipated under this alternative. Residential product types would be for sale and rent with a mix of apartments, townhouses, and condominiums. Residential buildings may include low-rise row houses and four- and five-story apartments or condominiums featuring a range of floor plan sizes. Mid- to high-rise buildings are also envisioned. Midrise buildings would not exceed 75 feet in height and high-rise buildings would not exceed 150 feet in height.

The commercial component would include neighborhood-serving retail and services that would include but not be limited to restaurants, retail uses such as bakeries, clothing/boutique shops, jewelry, and convenience stores. Business, medical, dental, and professional offices would be permitted uses as well as personal service uses such as dry cleaners, hair salons, optometry, and postal services.

Additionally, similar to the proposed project, a total of 2.05 acres of park space would be developed under this alternative, with 1.03 acres occurring under Phase 1 and 1.02 acres under Phase 2. The parks would be privately maintained and publicly accessible. In addition to the neighborhood parks, public open space areas, private open space areas, and ancillary amenities would be provided to serve residents and visitors, and paseo and walkway connections would be provided onsite and to surrounding areas.

Phase 1

Phase 1 would include demolition of the Half Dome building and other associated site improvements, including parking areas, landscaped and common areas, and other hardscape improvements. Upon demolition, this phase would include the development of up to 260 dwelling units and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The dwelling units could be accommodated within low-, mid- or high-rise buildings, or a mix of these building

types. Phase 1 would also include up to 11,500 square feet of neighborhood-serving commercial uses. Due to the substantial reduction in residential uses, this alternative could provide additional open space in addition to a neighborhood park.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area and other remaining site improvements would be demolished to develop up to 301 dwelling units and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The dwelling units could be accommodated within low-, mid- or high-rise buildings, or a mix of these building types. Phase 2 would also provide expanded open in comparison to the proposed project.

In comparison to the proposed project, the Reduced Density Alternative would have less environmental impact to air quality, GHG, hazards, noise, public services, recreation, traffic, and utilities and services. Since residential uses would still be included in Phase 1, it would not eliminate the significant impacts (prior to mitigation) associated with resident incompatibility with adjacency to the TowerJazz facility during an interim period. It would lessen these impacts in comparison to the proposed project, however, both because of the reduction in units and increased distance to TowerJazz. Under both the Reduced Density Alternative and the proposed project, the significant noise and hazards impacts would be mitigated to less than significant. Impacts to aesthetics, biological resources, cultural resources, hydrology and water quality, and land use and planning would be similar to the proposed project. It would not eliminate any significant impacts of the proposed project, and impacts to population and housing would be considered greater than the proposed project.

1.5.7 Environmentally Superior Alternative

CEQA requires a lead agency to identify the “environmentally superior alternative” and, in cases where the No Project Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. Of the development alternatives, the Hotel/Office/Commercial Alternative is identified as the environmentally superior alternative. Because this alternative would eliminate residential uses in Phase 1, it would eliminate the significant impacts associated with resident adjacency to the TowerJazz facility, an interim condition which would last between 6 and 12 years. Although mitigated to less than significant under the proposed project, the following impacts would be significant prior to mitigation:

- Operational noise impacts to Phase 1 residences related to 24-hour operation of the TowerJazz facility

- Compliance with CFC 2704.1.1 (amendment), which prohibits use or storage of any extremely hazardous substance equal to or greater than disclosable amounts adjacent to residential uses.

- Potential exposure to hazardous materials during Phase 2 development related to site groundwater and soil contamination of TowerJazz site

Additionally, this would eliminate the following impact of the project on the TowerJazz facility:

- Phase 1 vibration impacts to sensitive TowerJazz equipment

Each of these impacts, however, would be mitigated to less than significant under the proposed project. None of the development project alternatives were determined to eliminate any of the significant, unavoidable impacts of the proposed project.

1.6 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contain issues to be resolved including the choice among alternatives and whether or how to mitigate significant impacts. With regard to the proposed project, the major issues to be resolved include decisions by the lead agency as to the following:

1. Whether this DEIR adequately describes the environmental impacts of the project.

2. Whether the benefits of the project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.

3. Whether the proposed land use changes are compatible with the character of the existing area.

4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.

5. Whether there are other mitigation measures that should be applied to the project besides the Mitigation Measures identified in the DEIR.

6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

1.7 AREAS OF CONTROVERSY

In accordance with Section 15123(b)(2) of the CEQA Guidelines, the DEIR summary must identify areas of controversy known to the lead agency, including issues raised by agencies and the public. There are no specific areas of known controversy concerning the proposed project. The City of Newport Beach has no knowledge of any expressed opposition to the proposed project.

Prior to preparation of the DEIR, a public scoping meeting was held on December 15, 2011, to determine the concerns of responsible and trustee agencies and the community regarding the proposed project. The scoping meeting was held at the City of Newport Beach Council Chambers, and was attended by a number of community members and interested parties. Issues raised during this scoping meeting included concerns with bicycle and pedestrian transportation and safety; concerns with the Birch Street access drive; school district boundary impacts; soil and groundwater impacts; project phasing; traffic, circulation, and traffic impacts; land use impacts; aesthetic impacts, including shade and shadow; and population and housing impacts. The environmental issues raised from the scoping meeting are fully addressed in their respective topical area in Chapter 5.0 of this DEIR. A summary of the scoping meeting comments is provided in Section 2.3, *Scoping Meeting*.

This DEIR has taken into consideration the comments received from the various agencies and jurisdictions in response to the Notice of Preparation (NOP) that was issued by the City of Newport Beach on December 8, 2011, to the State Clearinghouse, responsible agencies, and interested parties. Written comments received during the NOP period, which extended from December 8, 2011, to January 9, 2012, are contained in Appendix A. A summary of the NOP comments is provided in Section 2.2, *Notice of Preparation and Initial Study*.

1.8 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

Table 1-2 summarizes the conclusions of the environmental analysis contained in this DEIR. Impacts are identified as significant or less than significant and for all significant impacts mitigation measures are identified. The level of significance after imposition of the mitigation measures is also presented.

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.1 AESTHETICS					
5.1-1: The proposed project would not have a substantial adverse effect on scenic vistas.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.1-2: The proposed project would substantially alter the visual character of the project site.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.1-3: The proposed project could cause shade/shadow impacts on surrounding uses.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.1-4: The proposed project would generate additional light and glare in the project area that could impact surrounding land uses.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.2 AIR QUALITY					
5.2-1: The Uptown Newport project would not conflict with the South Coast Air Quality Management District 2007 Air Quality Management Plan.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.2-2: Short-term construction emissions generated by the Uptown Newport project would result in NO_x emissions that exceed South Coast Air Quality Management District's regional significance thresholds and would cumulatively contribute to the nonattainment designations of the South Coast Air Basin.	Potentially significant (Substantial short-term air quality construction emissions)	Potentially significant (Substantial short-term air quality construction emissions)	**Phase 1 and Phase 2** 2-1 The construction contractor shall use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 or higher exhaust emission limits for equipment over 50 horsepower that are onsite for more than 5 days. Tier 3 engines between 50 and 750 horsepower are available for 2006 to 2008 model years. After January 1, 2015, equipment over 50 horsepower that are onsite for more than 5 days shall be equipment meeting the Tier 4 standards, if available. A list of construction equipment by type and model year shall be	Significant and unavoidable	Significant and unavoidable

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			maintained by the construction contractor onsite. A copy of each unit's certified Tier specification shall be provided at the time of mobilization of each applicable unit of equipment. Prior to construction, the City of Newport Beach shall ensure that all demolition and grading plans clearly show the requirement for United States Environmental Protection Agency Tier 3 or higher emissions standards for construction equipment over 50 horsepower during ground-disturbing activities. In addition, equipment shall properly service and maintain construction equipment in accordance with the manufacturer's recommendations. Construction contractors shall also ensure that all nonessential idling of construction equipment is restricted to five minutes or less in compliance with California Air Resources Board's Rule 2449. 2-2 The construction contractor shall implement the following measures or provide evidence to the City of Newport Beach that implementation would not be feasible: • If electricity is not available onsite, generators, welders, and air compressors shall use alternative fuels (i.e., electric, natural gas, propane, solar). • Construction parking shall be configured to minimize traffic interference. • Construction trucks shall be routed away from congested streets and sensitive receptors. • Construction activities that affect traffic flow on the arterial system shall be scheduled to off-peak hours to the extent practicable. • Temporary traffic controls, such as a flag person(s), shall be		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			provided, where necessary, to maintain smooth traffic flow. • Large shipments of construction materials and/or equipment requiring use of heavy-heavy duty tractor trailers (e.g., 53-foot truck) shall use EPA-certified SmartWay trucks. 2-3 Prior to issuance of a grading permit, the construction contractor shall provide a statement to the City of Newport Beach that the construction contractor shall support and encourage ridesharing and transit incentives for the construction crew, such as carpools, shuttle vans, transit passes, or secured bicycle parking for construction workers.		
5.2-3: Land uses associated with buildout of the Uptown Newport project would not generate a substantial increase in criteria air pollutant emissions that exceed South Coast Air Quality Management District's regional significance thresholds or significantly contribute to the nonattainment designations of the South Coast Air Basin.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.2-4: Construction activities associated with the Uptown Newport project could expose sensitive receptors to substantial pollutant concentrations of $PM_{2.5}$.	Potentially significant (Exposure of sensitive receptors to construction emissions)	Potentially significant (Exposure of sensitive receptors to construction emissions)	**Phase 1 and Phase 2** 2-4 The construction contractor shall prepare a dust control plan and implement the following measures during ground-disturbing activities for fugitive dust control in addition to South Coast Air Quality Management District Rule 403 to reduce particulate matter emissions. The City of Newport Beach shall verify compliance that these measures have been implemented during normal construction site inspections. • During all grading activities, the construction contractor shall	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			reestablish ground cover on the construction site through seeding and watering. • During all construction activities, the construction contractor shall sweep streets with Rule 1186–compliant, PM10-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling. • During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials, and tarp materials with a fabric cover or other cover that achieves the same amount of protection. • During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day. Recycled water should be used, if available. • During site preparation, the construction contractor shall stabilize stockpiled materials. Stockpiles within 300 feet of occupied buildings shall not exceed 8-feet in height, must have a road bladed to the top to allow water truck access, or must have an operational water irrigation system that is capable of complete stockpile coverage. • During all construction activities, the construction contractor shall limit onsite vehicle speeds on unpaved roads to no more than 15 miles per hour. 2-5 The construction contractor during Phase 2 activities shall adhere to one of the following if construction of Phase 1 overlaps with construction of Phase 2: • The construction contractor shall install Level 2 Verified		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			Diesel Emission Control Strategies (VDES) diesel particulate filters (DPF) on large off-road equipment that have engines rated 50 hp or greater during grading, utilities installation, paving, and concrete activities that overlap with Phase 1 building construction. A list of construction equipment by type and model year and type of DPF shall be maintained by the construction contractor onsite. Or • Phase 2 site improvements (grading, utilities installation, paving, and concrete construction subphases) shall not overlap with Phase 1 building construction. The City of Newport Beach shall verify compliance that one of these measures has been implemented during normal construction site inspections.		
			2-6 The construction contractor shall post a sign at the entrance to the construction site. The sign shall identify the designated contact person, telephone number, and email address for construction-related complaints. Upon receipt of a compliant, the complaint shall be investigated and corrective action shall be taken, if needed. The construction contractor shall file a report to the City of Newport Beach of the nature of the compliant and action taken to remedy the complaint within two working days. A log of the complaints and resolutions to the complaints shall be maintained onsite.		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.2-5: Operation of the proposed Uptown Newport project would not expose offsite sensitive receptors to substantial concentrations of air pollutants.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.2-6: The project would not expose sensitive land uses to substantial concentrations of toxic air contaminants.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.2-7: The Uptown Newport project would not expose a substantial number of people to nuisance odors.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.3 BIOLOGICAL RESOURCES					
5.3-1: Development of the proposed project would not directly impact sensitive species and would not indirectly impact federal- or state-listed endangered or threatened species.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.3-2: Local and regional plans and policies protect habitats and state- and federally listed plant and animal species, but do not separately list endangered or threatened species. Project development would not impact sensitive species listed in local or regional plans or policies.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.3-3: The proposed project would remove habitat that could be used for nesting by migratory birds.	Potentially significant (Construction impacts on migratory birds)	Potentially significant (Construction impacts on migratory birds)	**Phase 1 and Phase 2** 3-1 Prior to any proposed actions during the breeding season, January 31st through September 15th, the monitoring biologist shall conduct a pre-construction survey(s) to identify any active nests in and near the project area no more than three days prior to project initiation. If the biologist does not find any active nests that would be potentially impacted, the proposed action may proceed. Any active nests observed during the survey shall be mapped on a recent aerial photograph, including documentation of GPS coordinates. If the biologist finds an active nest within or adjacent to the action area and determines that the nest may be impacted, the biologist shall delineate an appropriate buffer zone around the nest using temporary plastic fencing or other suitable materials, such as barricade tape and traffic cones. The buffer zone shall range from a 300- to 500-foot radius at the discretion of the biologist. Only activities approved by the qualified biologist shall take place within the buffer zone until the nest is vacated. Once the nest is no longer active, the proposed action may proceed within the buffer zone.	Less than significant	Less than significant
5.4 CULTURAL RESOURCES					
5.4-1: Development of the project would not impact an identified historic resource.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.4-2: Development of the project site, including excavation as deep as 15 feet, could impact archaeological and/or paleontological resources.	Potentially significant (Construction impacts on cultural resources)	Potentially significant (Construction impacts on cultural resources)	**Phase 1 and Phase 2** 4-1 Prior to the issuance of grading permits, the project applicant shall demonstrate to the Community Development Department that an Orange County–certified professional archaeologist has been retained to monitor any potential impacts to archaeological or historic resources throughout the duration of any ground-disturbing activities at the project site. The archeologist shall	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			develop a Cultural Resources Awareness Training program, which shall provide examples of the types of resources that might be encountered and detail procedures to be implemented in that event. The qualified archeologist shall be present at the pregrade meeting to present the training program to all earthmoving personnel and their supervisors and to discuss the monitoring, collection, and safety procedures of cultural resources, if any are found. If subsurface cultural resources are inadvertently discovered during ground-disturbing activities, the construction contractor shall ensure that all work stops within 25 feet of the find until the qualified archeologist can assess the significance of the find and, if necessary, shall develop appropriate treatment or disposition of the resources in consultation with the City of Newport Beach and a representative of the affected Native American tribe (Gabrielino). The archeological monitor shall have the authority to halt any project-related activities that may be adversely impacting potentially significant cultural resources. Suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until an archeological monitor has evaluated the discoveries to assess whether they are classified as significant cultural resources, pursuant to the California Environmental Quality Act.		
			4-2 Prior to the issuance of grading permits, the project applicant shall demonstrate to the Community Development Department that an Orange County–certified professional paleontologist has been retained to monitor any potential impacts to paleontological resources throughout the duration of any ground-disturbing activities at the project site. The paleontologist shall review the project's final plans and develop and implement a Paleontological Mitigation Plan, which shall include the following minimum elements:		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			• All earthmoving activities eight-feet or more below the current surface shall be monitored full-time by a qualified paleontological monitor. • If fossils are discovered, the paleontological monitor has the authority to temporarily divert work within 25 feet of the find to allow recovery of the fossils and evaluation of the fossil locality. • Fossil localities shall require documentation including stratigraphic columns and samples for micropaleontological analyses and for dating. • Fossils shall be prepared to the point of identification and evaluated for significance. • Significant fossils shall be cataloged and identified prior to being donated to an appropriate repository. • The final report shall interpret any paleontological resources discovered in the regional context and provide the catalog and all specialists' reports as appendices.		
5.4-3: Project-related grading activities could potentially disturb human remains.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	LTS	LTS
5.5 GEOLOGY AND SOILS					
5.5-1: Project development would subject people and structures to strong seismic ground shaking.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.5-2: Development of the project could subject people and structures to hazards arising from liquefaction.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.5-3: The project could cause soil erosion.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.5-4: Development of the project could expose people and structures to hazards arising from expansive soils.	Potentially significant	Potentially significant	**Phase 1 and Phase 2** 6-1 Prior to issuance of any grading permits for the project, the project applicant shall have soil testing for expansion potential conducted by a professional engineering geologist or registered geotechnical engineer. The geologist or engineer shall prepare a report describing the sampling and testing; findings; any hazards related to the findings; and recommendations for reducing any hazards identified. The project applicant shall submit a copy of the report to the City of Newport Beach Community Development Department for review and approval by the City Building Division.	Less than significant	Less than significant
5.5-5: Project development would not subject people or structures to substantial hazards arising from soil subsidence.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.6 GREENHOUSE GAS EMISSIONS					
5.6-1: The Uptown Newport project would result in a temporary increase in greenhouse gas emissions during Phase 1 operations but would not exceed the proposed South Coast Air Quality Management District per capita significance threshold. At buildout, the project would result in a net decrease in GHG emissions.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.6-2: The proposed project would not conflict with plans adopted for the purpose of reducing greenhouse gas emissions.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.7 HAZARDS AND HAZARDOUS MATERIALS					
5.7-1: Prior to the demolition of the TowerJazz manufacturing facility in Phase 2 of the project, residents of Phase 1 of the project could be at risk from an accidental release of chemicals stored at the TowerJazz facility.	Potentially significant	Less than significant	**Phase 1** 7-1 In compliance with CFC Section 381.1 (Amendment), prior to issuance of building permits for Phase 1, the project applicant shall submit a geologic study from a state-licensed and department-approved individual or firm to the Newport Beach Fire Department Fire Prevention Division for review and approval (due to the proximity of the proposed project to a semiconductor facility). 7-2 Prior to issuance of any building permit for Phase 1, the applicant shall demonstrate compliance with CFC Section 27041.1 (Amendment), which prohibits the storage of any amount of extremely hazardous substances equal to or greater than the disclosable amounts listed in Appendix A, Part 355, Title 40, of the Code of Federal Regulations in a residential zone or adjacent to property developed with residential uses. Compliance shall be demonstrated to the satisfaction of the Newport Beach Fire Department and shall include the following: • Installation of a new anhydrous ammonia tank at a minimum distance of 200 feet from the nearest existing or proposed residential structure (including the adjacent Koll property project). The new tank shall be approved by the Newport Beach Fire Department, and the tank and installation shall include mitigation safeguards such as: automatic shut-off valves, excess flow valves, restrictive flow orifices, toxic gas detection system, automatic sprinkler system, water deluge system, alarm system, and double containment piping. An updated Offsite Consequence Analysis (OCA) shall be prepared to to the satisfaction of the Fire Department prior installation of the new tank.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			• In the event a new anhydrous ammonia tank is not installed or the existing tank relocated, no residential structures shall be constructed within 200 feet of the anhydrous ammonia tank. • Demonstration of maintenance of industry best practices and provision of minimum EPGR-2 separation distances as defined by the EPA for any extremely hazardous substances (EHS) in excess of disclosable amounts. The use of the term "adjacent to" (per CFC Section 27041.1 (Amendment) shall be interpreted to be a greater distance than an offsite consequence analysis would require as a safe EPGR-2 (or an equivalent and accepted standard) separation distance (ibid). 7-3 Prior to the issuance of occupancy permits, the applicant shall demonstrate to the satisfaction of the City of Newport Beach Fire Department that the following disclosures and emergency notification procedures/programs are in place: • Disclosure to potential Uptown Newport residences that hazardous chemicals are used and stored at the adjacent TowerJazz facility. • Inclusion of property manager or authorized representative of the Uptown Newport residential community to the emergency notification list of the TowerJazz Business Emergency Plan. • Program to inform/train the property manager or authorized representative of the Uptown Newport residential community in emergency response and evacuation procedures and to incorporate ongoing coordination between the Uptown Newport representative and TowerJazz to assure proper action in the event of an		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			accident at the facility (shelter in place and/or evacuation routes). • Upgrade TowerJazz emergency alarm system to include concurrent notification to Uptown Newport residents of chemical release. Provisions of the alarm system and emergency notification procedure shall be reviewed and approved by the City of Newport Beach Fire Department. 7-4 Prior to the introduction of a new extremely hazardous substance (EHS) or increase in quantity of any existing EHS at TowerJazz, an updated OCA shall be prepared and reviewed and authorized by the City of Newport Beach Fire Department. Any new EHS shall be appropriately located and the installation designed with all necessary mitigation safeguards specified by the City of Newport Beach Fire Department.		
5.7-2: The project site is included on a list of hazardous material sites. Project development, including soil disturbance from site grading and construction activities, could pose substantial hazards to people or the environment through the release of hazardous materials.	Potentially significant (Migration of VOCs from TowerJazz)	Potentially significant (Contaminate soil disturbance from removal of TowerJazz)	**Phase 1** 7-5 Prior to the issuance of building permits for development within Phase 1, the project applicant shall obtain a "No Further Action" declaration or Letter of Allowance for residential construction for Phase 1 from the Regional Water Quality Control Board. **Phase 2** 7-6 The project applicant shall submit copies of applicable reports and plans as submitted to the RWQCB for remedial activities within the Phase 2 portion of the project site to the City of Newport Beach Community Development Department. Such copies shall include remediation action plans and annual soil and groundwater remediation progress reports. 7-7 Prior to the issuance of building permits for development within Phase 2, the project applicant shall obtain a "No Further Action" declaration or Letter of Allowance for residential construction for Phase 2 from the Regional Water Quality Control Board.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.7-3: Demolition of onsite buildings could result in a health risk due to the release of hazardous building materials, including asbestos and lead paint.	Potentially significant	Potentially significant	**Phase 1 and Phase 2** 7-8 Prior to issuance of demolition permits, the project applicant shall have the following inspections and assessments conducted for the Half Dome building (Phase 1) and TowerJazz building (Phase 2) and shall provide the Community Development Department with a copy of the report of each investigation or assessment. • The applicant shall retain a certified lead inspector/assessor to inspect buildings onsite for lead-based paint (LBP). The inspector/assessor's report shall describe regulatory requirements for lead containment applicable to any LBP discovered onsite. • The applicant shall retain a licensed or certified asbestos consultant to inspect buildings onsite for asbestos-containing materials (ACM). The asbestos consultant's report shall include requirements for abatement, containment, and disposal of ACM in South Coast Air Quality Management District Rule 1403.	Less than significant	Less than significant
5.7-4: Future residents and visitors of Phase 1 of the project would not be exposed to unacceptable levels of VOCs as a result of vapor intrusion into buildings. The health risk associated with potential soil vapor intrusion of VOCs for future Phase 2 residents is undetermined.	Potentially significant (Migration of VOCs from TowerJazz)	Potentially significant (Groundwater contaminatio n)	**Phase 1** Mitigation Measure 7-3 also applies to Impact 5.7-4. **Phase 2** 7-9 Prior to the issuance of building permits for Phase 2, the project applicant shall retain a registered environmental assessor or other professional qualified to conduct a human health risk assessment (HHRA) of potential volatile organic compound contamination. The HHRA shall be conducted under the guidance and review of the Regional Water Quality Control Board. Approval of tentative tract map(s) for Phase 2 shall not occur until the project applicant obtains a "No Further Action" declaration or a Letter of Allowance for residential construction	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			from the Regional Water Quality Control Board. 7-10 Prior to issuance of a building permits for Phase 2 development, the project applicant shall demonstrate to the Community Development Department that contamination in soil and groundwater on Phase 2 has been remediated to meet the cleanup goal for the site for total volatile organic compounds set by the State Water Resources Control Board and shall have obtained a "No Further Action" declaration or Letter of Allowance for residential construction from the Regional Water Quality Control Board.		
5.7-5: The existing SCE substation may present health hazards related to electric and magnetic fields (emf) and/or upon demolition, release of hazardous materials.	Less than significant	Potentially significant	**Phase 2** 7-11 Prior to the issuance of demolition permits for Phase 2, the construction dates for the SCE Substation shall be confirmed. If the facility was constructed prior to the 1980's, a certified inspector approved by the City of Newport Beach Fire Department shall be retained to test for PCBs and related hazardous materials. If PCBs or other hazardous materials are determined to be present, a mitigation program to abate, contain and dispose of the materials shall be prepared and approved by the City Fire Department. Such program shall be implemented prior to the issuance of Phase 2 building permits. Mitigation Measures 7-9 and 7-10 also apply Impact 5.7-5.	Less than significant	Less than significant
5.8 HYDROLOGY AND WATER QUALITY					
5.8-1: Development pursuant to the proposed project would decrease the amount of impervious surfaces on the site and would reduce stormwater volumes and peak flow rates into drainage systems.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.8-2: Increases in short-term unquantifiable pollutant concentrations could result from onsite construction activities.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.8-3: After project development, the quality of storm runoff (sediment, nutrients, metals, pesticides, pathogens, and hydrocarbons) may be altered.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.9 LAND USE AND PLANNING					
5.9-1: Project implementation would not divide an established business community.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.9-2: Project implementation would potentially conflict with applicable plans adopted for the purpose of avoiding or mitigating and environmental effect.	Potentially significant (Potential finding of inconsistency with the AELUP by ALUC)	Potentially significant (Potential finding of inconsistency with the AELUP by ALUC)	There are no applicable mitigation measures.	Significant and unavoidable	Significant and unavoidable
5.10 NOISE AND VIBRATION					
5.10-1: The increase in traffic from operation of the proposed project would result in barely perceptible noise increases less than 0.2 dBA CNEL to area noise levels.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.10-2: The proposed project would introduce new stationary noise sources that would result in small noise level increases in the vicinity of noise-sensitive land uses.	Potentially significant	Potentially significant	**Phase 1 and Phase 2** 10-1 The parking lot surface of all parking garages shall be textured to eliminate tire squeal noise. Ventilation equipment for the parking garages shall be designed to meet the City's noise limits for Zone III, not exceed a daytime maximum of 60 dBA Leq (or 80 dBA Lmax) and a nighttime maximum of 50 dBA Leq (or 70 dBA Lmax). This can be accomplished by selecting quieter equipment or by enclosing ventilation equipment. 10-2 Truck deliveries shall be restricted to the daytime hours between 7 AM and 10 PM.	Less than significant	Less than significant
5.10-3: Proposed onsite noise-sensitive uses would be exposed to exterior noise levels from vehicular traffic and from operation of the TowerJazz facility exceeding the 65 dBA CNEL standard for residential and park uses.	Potentially significant (Exposure of patios and balconies facing TowerJazz to noise levels of 65 dBA)	Potentially significant (Exposure of patios and balconies facing Jamboree Road to noise levels of 65 dBA)	**Phase 1** 10-3 Prior to issuance of building permits for Phase 1, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department for review and approval. The study shall demonstrate that all residential units would meet the 65 dBA CNEL exterior noise standard for all patios, balconies, and common outdoor living areas (playgrounds, parks, and swimming pools). The necessary noise reduction may be achieved by implementing noise control measures at the TowerJazz facility and at the receiver locations, as described in detail in the Technical Memorandum provided by Wilson Ihrig and Associates (Appendix J). The technical memorandum includes noise control measures that would be implemented at the rooftop mechanical equipment and at the cooling towers of the TowerJazz facility, summarized below:: • Rooftop Mechanical Equipment Noise Control o Exhaust Fan Noise Control: The exhaust fan noise can	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			be most effectively controlled by constructing noise barriers around three sides of each of the exhaust stacks, such that the barriers would be located between the stacks and the future Phase 1 development. In addition to a barrier, sound levels can be reduced by modifying the exhaust stack and fan. o Other Equipment: Other specific pieces of rooftop equipment can be treated with barriers lined with acoustical absorption. Ducts and pipes that radiate significant noise can be treated by adding mass to the duct walls, or lined with acoustical absorption or lead-loaded vinyl. o Screen: The performance of the existing sheet metal parapet wall/screen can be enhanced by treating the upper 8 feet of the screen with acoustical absorption. • Cooling Towers Noise Control o Relocation: Moving the cooling towers away from the Phase 1 development would be an effective approach to noise control. o Replacement: Replacement of the existing cooling towers can be considered, as new towers would have new coils with improved air flow and efficiency. o Additional Cooling Towers: Additional cooling towers would reduce the cooling demand on individual units, allowing the fans to operate at lower speed. o Fan Noise: The cooling tower fans appear to be the primary noise source. The fan noise emanates from the top of the cooling towers and from the coils. Waterfall noise, though not readily apparent, also transmits through the coils to the exterior. The following		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			provisions may be applied to the existing cooling towers to reduce cooling tower noise: coil replacement, variable frequency drives, tip seals, aerodynamic fan blades, treatment of the discharge stack, acoustical louvers, and sound barriers. The measures described above, or some combination thereof, would reduce the exterior noise levels at units facing the TowerJazz facility to 65 dBA CNEL. The property owner/developer shall implement these noise control measures at the TowerJazz facility and demonstrate with noise level measurements that noise from the operation of mechanical equipment at the TowerJazz facility would not exceed 65 dBA CNEL at the property boundary or at the nearest receptors. In addition, the final grading and building plans shall incorporate the required noise barriers at common exterior areas and patios (glass/Plexiglas patio enclosures, wall, berm, or combination wall/berm) and at balconies (glass or Plexiglas balconies enclosure). Patio enclosures for units facing the TowerJazz facility would need acoustical absorption to absorb sound in the balcony. The property owner/developer shall install these barriers and enclosures. **Phase 2** 10-4 Prior to issuance of building permits for Phase 2, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department to demonstrate that all residential units would meet the 65 dBA CNEL exterior noise standard for all patios, balconies, and common outdoor living		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			areas. The necessary noise reduction may be achieved by implementing noise control measures at the receiver locations. The final grading and building plans shall incorporate the require noise barriers (patio enclosure, wall, berm, or combination wall/berm), and the property owner/developer shall install these barriers and enclosures.		
5.10-4: Proposed noise-sensitive uses would be exposed to interior noise levels exceeding the 45 dBA CNEL standard.	Potentially significant (Exposure of noise-sensitive uses to noise levels above 45 dBA)	Potentially significant (Exposure of noise-sensitive uses to noise levels above 45 dBA)	**Phase 1** 10-5 Prior to issuance of building permits for each residential structure located within Phase 1, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department to demonstrate that all residential units would meet the 45 dBA CNEL interior noise standards for habitable rooms (i.e., bedrooms, living rooms, dens, kitchens) due to exterior noise from traffic, aircraft overflights, and stationary noise from the TowerJazz facility. The report shall evaluate the effects of the precise building placement and design materials used for construction. It shall describe and quantify the noise sources impacting the buildings, the amount of outdoor to indoor noise reduction provided by the structure, and any upgrades required to meet the interior noise standard. This standard must be achieved with the windows closed in conjunction with a fresh air mechanical ventilation or air conditioning system, and it may require upgraded construction methods and materials. According to the preliminary assessment provided by Wilson Ihrig and Associates, the required noise reduction at units facing the TowerJazz facility would be achieved with acoustically rated doors and windows with a Sound Transmission Class (STC) no greater than 35. The measures described in the report shall be incorporated into the architectural plans for the buildings and implemented with building construction.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			Phase 2 10-6 Prior to issuance of building permits for each residential structure located within Phase 2, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department to demonstrate that all residential units would meet the 45 dBA CNEL interior noise standards for habitable rooms (i.e., bedrooms, living rooms, dens, kitchens) with exterior noise from traffic and aircraft overflights. The report shall evaluate the effects of the precise building placement and design materials used for construction. It shall describe and quantify the noise sources impacting the buildings, the amount of outdoor to indoor noise reduction provided by the structure, and any upgrades required to meet the interior noise standard. This standard must be achieved with the windows closed in conjunction with a fresh air mechanical ventilation or air conditioning system, and it may require upgraded construction methods and materials. The measures described in the report shall be incorporated into the architectural plans for the buildings and implemented with building construction.		
5.10-5: Construction of the Uptown Newport project would generate vibration levels that exceed the FTA criterion for human annoyance at nearby residential structures and affect the operation of vibration-sensitive equipment at the TowerJazz facility.	Potentially significant (Construction vibration affecting TowerJazz operation)	Potentially significant (Construction vibration affecting office and residential buildings)	**Phase 1** 10-7 During Phase 1 construction, the construction contractor shall implement a vibration control program to reduce vibration levels at the TowerJazz facility. The Technical Memorandum prepared by Wilson Ihrig and Associates includes several measures to control vibration at the TowerJazz facility, outlined below: • Pile Driving: o Augured piles shall be employed to the extent possible. Impact and vibratory pile drivers shall not be used	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			during construction unless TowerJazz is consulted to avoid excessive vibration during operation of sensitive equipment. Constant frequency pile drivers might be acceptable if operated at sufficient distance from the TowerJazz facility and if demonstrated to not impact TowerJazz operations. • Heavy Construction Equipment: o Within 200 feet of the TowerJazz facility, wheel loaders and dozers shall be employed rather than the track-laying heavy equipment. Contractor training and notification should be conducted to minimize dozer blades and buckets being dropped on the ground for wheeled equipment operated within 200 feet of the TowerJazz facility. o Static rollers should be employed where compacting is required. To avoid excessive vibration during operation of sensitive equipment, vibratory rollers should not be used unless TowerJazz is consulted and ground vibration produced by such rollers is found to be acceptable to TowerJazz operations. o Hoe rams shall be not be used to break up concrete grade slabs within 100 feet of the TowerJazz facility and office uses adjacent to the project site. Concrete slabs can be sawed and lifted away to another location where they may be broken up by the hoe ram. • Haul Trucks: Haul trucks shall be routed away, to the extent possible, from the TowerJazz facility. • Lay-Down Areas: Lay-down areas include material storing areas such as piles, steel shapes, and other heavy items. The lay-down area should be located in portions of the		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			construction site that are at least 200 feet away from the TowerJazz facility. • Vibration Monitoring: Vibration monitoring shall be conducted in the TowerJazz building during development and construction of Phase 1. Vibration monitors shall be located in select locations where sensitive equipment is located in consultation with TowerJazz. The most appropriate location for monitoring would be at the building foundations along the exterior sides facing the construction work. Recommended thresholds for vibration monitoring have been developed based on past vibration monitoring at the TowerJazz facility during the seismic retrofit and on the vibratory characteristics of construction equipment that are anticipated to be used during construction of Phase 1. Recommended thresholds for vibration monitoring are: o A vibration level of 0.125 in/sec will trigger a warning that will notify the construction operator and TowerJazz; o A vibration level of 0.250 in/sec will trigger a warning that will notify the construction operator and TowerJazz of excessive vibration and that the construction activity that is causing the excessive vibration should be stopped. o Construction activity may recommence upon satisfactory assessment that the continued construction activity will not substantially affect the use of vibration-sensitive equipment or interfere with operations at the TowerJazz facility. Final protocol for notification to TowerJazz and construction equipment operators will be determined and documented in a vibration monitoring plan prepared prior to construction.		

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
			Phase 1 and Phase 2 10-8 Augured piles shall be employed to the extent possible. Impact and vibratory pile drivers shall not be used during construction within 75 feet of any building.		
5.10-6: Construction activities at Uptown Newport would substantially elevate the daytime noise environment in the vicinity of nearby uses.	Potentially significant (Exceedance of daytime noise levels during project construction)	Potentially significant (Exceedance of daytime noise levels during project construction)	**Phase 1 and Phase 2** 10-9 The construction contractor shall ensure that all construction equipment onsite is properly maintained and tuned to minimize noise emissions. 10-10 The construction contractor shall ensure that construction equipment is fit with properly operating mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped by the manufacturer. 10-11 The construction contractor shall locate all stationary noise sources (e.g., generators, compressors, staging areas) as far from residential and recreational receptor locations as is feasible. 10-12 Material delivery, soil haul trucks, equipment servicing, and construction activities shall be restricted to the hours set forth in the City of Newport Beach Municipal Code, Section 10.28.040.	Significant and unavoidable	Significant and unavoidable
5.10-7: The Uptown Newport project site is located outside the 65 dBA CNEL noise contour of John Wayne Airport and would not result in substantial aircraft noise exposure to future occupants and workers.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.11 POPULATION AND HOUSING					
5.11-1: The proposed project would directly result in a projected population growth of 2,724 residents in the project area.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.12 PUBLIC SERVICES					
FIRE PROTECTION AND EMERGENCY SERVICES					
5.12-1: The proposed project would introduce new structures, residents, and workers into the Newport Beach Fire Department service boundaries, thereby altering the requirement for fire protection facilities and personnel.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
POLICE PROTECTION					
5.12-2: The proposed project would introduce new structures, residents, and workers into the Newport Beach Police Department service boundaries, thereby increasing the requirement for police protection facilities and personnel.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
SCHOOL SERVICES					
5.12-3: The proposed project would generate 341 new students who would impact the school enrollment capacities of Monroe Elementary, McFadden Intermediate, and Century High Schools in the Santa Ana Unified School District.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
LIBRARY SERVICES					
5.12-4: At buildout the proposed project would potentially house 2,724 residents who would constitute a population increase in the service area of the Newport Beach Mariners Branch and Central Libraries. This population increase would create an increased demand for service from the Newport Beach Public Library system.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.13 RECREATION					
5.13-1: At project buildout the proposed project would introduce an estimated 2,724 residents to service area 4 (Santa Ana Heights/Airport Commercial). Based on the City's parkland dedication requirements, the project would require 13.62 acres of park space.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.14 TRANSPORTATION/TRAFFIC					
5.14-1: The proposed project at buildout would generate an additional 8,286 daily trips, 542 during the AM peak hour, and 727 during the PM peak hour. These project-related trips would not conflict with applicable City plans governing the performance of the area-wide circulation system.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.14-2: Project-related traffic would not result in traffic impacts per traffic phasing ordinance analysis requirements.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.14-3: The project-related traffic would not result in significant impacts to Congestion management plan facilities in the study area. The project, therefore, would not result in a designated road or intersection exceeding county congestion management agency service standards.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.14-4: The project-related traffic would not result in significant impacts to state highway intersections in the study area.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.14-5: Project-related trip generation would not result in additional freeway segments falling to unacceptable levels of service.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	
5.14-6: The proposed project complies with adopted policies, plans, and programs for alternative transportation.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.14-7: Project-related construction worker, delivery, and construction vehicle trips would not result in a detriment of levels of service at intersections and roadways in the study area.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.15 UTILITIES AND SERVICE SYSTEMS					
5.15-1: Project-generated wastewater would not exceed the capacity of existing sewer pipelines and would be adequately treated by Orange County Sanitation District.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.15-2: Projected water supply and delivery systems would be adequate to meet project requirements; project site water demand would be substantially reduced upon implementation of the project in comparison to existing water use.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

Table 1-2
Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation		Mitigation Measures	Level of Significance After Mitigation	
	Phase 1	Phase 2		Phase 1	Phase 2
5.15-3: Post-development site stormwater flow would be reduced in comparison to existing conditions, and proposed onsite and existing offsite storm drain systems would have adequate capacity to capture and convey runoff.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.15-4: The Frank R. Bowerman Landfill has adequate capacity to accommodate project-generated solid waste.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant
5.15-5: In comparison to existing uses, project development would substantially reduce demand for electricity and natural gas.	Less than significant	Less than significant	Impacts are less than significant and no mitigation measures are required.	Less than significant	Less than significant

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2. Introduction

2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act (CEQA) requires that all state and local governmental agencies consider the environmental consequences of projects over which they have discretionary authority prior to taking action on those projects. This draft environmental impact report (DEIR) has been prepared to satisfy CEQA, as set forth in the Public Resources Code Section 21000, et seq., and the State CEQA Guidelines, 14 California Code of Regulations, Section 15000, et seq. The environmental impact report (EIR) is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage and to identify alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided; growth inducing impacts; effects not found to be significant; and significant cumulative impacts of all past, present and reasonably foreseeable future projects.

Pursuant to CEQA Section 21067, the lead agency means "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." The City of Newport Beach has the principal responsibility for approval of the Uptown Newport project. For this reason, the City of Newport Beach is the CEQA lead agency for this project.

The intent of the DEIR is to provide sufficient information on the potential environmental impacts of the proposed Uptown Newport project to allow the City of Newport Beach to make an informed decision regarding approval of the project. Specific discretionary actions to be reviewed by the City and potential project permits and approvals required from other regulatory agencies are described in Section 3.5, *Intended Uses of the EIR*.

This DEIR has been prepared in accordance with requirements of the:

- California Environmental Quality Act (CEQA) of 1970, as amended (Public Resources Code Section 21000 et seq.)
- State Guidelines for the Implementation of the CEQA of 1970 (herein referenced as CEQA Guidelines), as amended (California Code of Regulations Sections 15000 et seq.)

The overall purpose of this DEIR is to inform the lead agency, responsible agencies, decision makers and the general public of the environmental effects of the development and operation of the proposed Uptown Newport project. This DEIR addresses the potential environmental effects of the project, including effects that may be significant and adverse, evaluates a number of alternatives to the project, and identifies mitigation measures to reduce or avoid adverse effects.

2.2 NOTICE OF PREPARATION AND INITIAL STUDY

The City of Newport Beach determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) and Initial Study on December 8, 2011, to the State Clearinghouse, responsible agencies, and interested parties. Comments received during the public review period, which extended from December 8, 2011, to January 9, 2012, are contained in Appendix B.

The NOP process is used to help determine the scope of the environmental issues to be addressed in the DEIR. Based on this process and the Initial Study for the proposed project, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered Potentially Significant are addressed in Chapter 5 of this DEIR. Issues identified as Less Than Significant or No Impact are not addressed beyond the discussion contained in the Initial Study and summarized in Chapter 8. Please refer to the Initial Study in Appendix A for a discussion of how these initial determinations were made.

A total of 16 agencies/interested parties responded to the NOP. Table 2-1 summarizes the issues identified by the commenting agencies, along with a reference to the section(s) of this DEIR where the issues are addressed.

Table 2-1
NOP Comment Summary

Commenting Agency/Person	*Comment Type*	*Comment Summary*	*Issue Addressed In:*
Adams, John S. & Associates (1/9/12)	Land Use and Traffic	• Stated that the proposed project would divide an established business park and conflict with surrounding uses. • Stated that Birch Street is a private easement and was not designed to be a primary access point; the project's use of Birch Street will exacerbate traffic and traffic accidents. • Suggested that Jamboree Road be maintained as primary access to the TowerJazz building during Phase 1 of construction. • Stated that the impact of Koll development should be addressed in the DEIR, particularly with respect to the proposed connectivity between the sites and how this will affect parking. • Suggested that the density be reduced to be trip neutral for traffic; any mitigation above trip neutral should be borne entirely by Uptown Newport and Koll projects.	Sections 5.9, *Land Use and Planning,* and 5.14, *Transportation and Traffic*
Airport Land Use Commission (1/9/12)	Hazards, Land Use, and Noise	• Stated that the DEIR should discuss the height at which the notification surface would be penetrated compared to the proposed building heights; if the notification surface is penetrated, applicant will be required to file form 7460-I with FAA. • Stated that the DEIR should discuss whether residential development will be located	Sections 5.7, *Hazards,* 5.9, *Land Use and Planning,* and 5.10, *Noise*

Table 2-1
NOP Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
		within the 60dB CNEL contour of John Wayne Airport. • Stated that the DEIR should identify if the project will include a heliport.	
City of Irvine (12/27/11)	Traffic	• Stated that the City of Irvine staff should be contacted to discuss the IBC Vision Plan methodology to be used in the traffic study for evaluating the impact of the project along arterials and intersections affecting City of Irvine. • Stated that the traffic study area boundaries shall be reviewed and approved by City of Irvine staff. • Stated that the traffic study area should cover MacArthur Boulevard and Jamboree Road from SR-73 to I-405, including freeway ramps. • Stated that the IBC Vision Plan performance criteria should be used in evaluating intersection and roadway link deficiencies in or partially in City of Irvine. • Stated that fair share contributions and/or construction improvements to mitigate impacts in City of Irvine shall be required and identified in the traffic study.	Section 5.14, *Transportation and Traffic*
City of Newport Beach Public Works Department (1/5/12)	Utilities	• Stated that the project applicant is required to monitor current sewer flows on the existing lines along Von Karman Avenue and Birch Street. Main objective is to see if all of Phase 1 and TowerJazz facility discharge can be routed into existing sewer system.	Section 5.15, *Utilities and Service Systems*
City of Newport Beach Recreation and Senior Services Department (12/8/11)	Park Space	• Requested appropriate park dedication fees to be determined; that the in-lieu fees should take into consideration the 2.05 acres of dedicated park space, which shall be included in the development agreement.	Section 5.13, *Recreation*
Department of Toxic Substances Control (1/30/12)	Hazards	• Stated that the DEIR should evaluate whether conditions within the project area may pose a threat to human health or the environment.	Section 5.7, *Hazards*

Table 2-1
NOP Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
		• Stated that the DEIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may be contaminated. • Offered several specific procedures that should be followed with respect to demolition and construction and how to handle related hazardous waste issues that may arise, including handling and cleanup of hazardous substances.	
Jim Mosher (1/9/12)	Land Use	• Stated that the DEIR should analyze the project in the context of the considerable amount of residential conversion anticipated as a result of the General Plan and latest Housing Element. • Stated concern about the impact to schools and community cohesiveness and that the DEIR should include a comparison of alternatives with respect to which school district the project site will belong to. • Stated that a more detailed plan of what is to be built is necessary in order for the DEIR to adequately address impacts such as noise and shade to surrounding neighborhoods.	Sections 5.9, *Land Use,* and 5.11, *Population and Housing*
Kennedy Commission (1/6/12)	Population, Housing and Employment and Traffic	• Stated that the provision of affordable housing be outlined in the DEIR and that the development of affordable housing be made a priority at the project site, especially for the lower income categories. • Stated that the DEIR should address the City's jobs-housing "fit", which is different from jobs-housing balance. The jobs-housing fit analyzes the discrepancies between the types of jobs and wages (especially for low-wage jobs) that will be created in a city and the housing costs and opportunities that are available in the city. • Stated that the DEIR conduct a detailed analysis of the proposed	Sections 5.6, *Greenhouse Gas Emissions*, 5.11, *Population and Housing,* and 5.14, *Transportation and Traffic*

Table 2-1
NOP Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
		project's affordable housing units (i.e., amount, housing types and affordability) and the impacts this would have on vehicle miles traveled, greenhouse gas emissions, and other traffic impacts. • Stated that the DEIR provide a detailed analysis of how many jobs and what types of jobs and wages will be generated from the proposed project. • Stated that the DEIR provide a detailed analysis of how many people live outside the City and commute into the City to work and how many residents live in the City but commute out of the City to work. • Stated that the DIER should identify trip-reduction measures. • Stated that the City should continue with meaningful outreach and incorporate public comments into the project's planning process.	
Native American Heritage Commission (12/9/11)	Cultural Resources	• Stated that the Native American Heritage Commission Sacred Lands File search did not identify Native American cultural resources within the project area. • Requested that the lead agency contact the Native American contacts provided by the Native American Heritage Commission.	Section 5.4, *Cultural Resources*
Orange County Sanitation District (12/28/11)	Sewer Capacity and Discharges	• Requested that the City indicate how connection to the City sewers will lead into the Orange County Sanitation District (OCSD) system. • Stated concern that existing sewer may not have capacity to serve the project. • Requested that a sewer study be prepared. • Requested specific flow factors to be used in DEIR. • Stated that OCSD staff will need to review and approve the water quality of any discharges and the measures necessary to eliminate	Section 5.15, *Utilities and Service Systems*

Table 2-1
NOP Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
		materials prior to discharge into the sewer system.	
Southern California Association of Governments (12/9/12)	Housing and Land Use	• Found the project to be regionally significant. • Stated that the DEIR should provide a side-by-side analysis in a table format of all the applicable SCAG regional goals and policies, with a discussion of consistency, inconsistency, or nonapplicability and supportive analysis. • Stated that the DEIR should reflect the most current SCAG forecasts, which are the 2008 Regional Transportation Plan population, household, and employment forecasts. • Stated that all feasible measures needed to mitigate any potential negative regional impacts associated with the revised project should be implemented and monitored, as required by CEQA.	Sections 5.9, *Land Use and Planning,* and 5.11, *Population and Housing*
South Coast Air Quality Management District (12/23/11)	Air Quality	• Stated that the lead agency should identify any potential air quality impacts that could occur from all phases of the project. • Requested that $PM_{2.5}$ emissions be quantified and compared to recommended $PM_{2.5}$ significance thresholds. • Recommended calculating localized air quality impacts and comparing the results to localized significance thresholds.	Section 5.2, *Air Quality*
Sapetto Group, Inc. (1/9/12)	Traffic, Land Use, Schools, Water Use, and Shade/Shadow	• Requested that the DEIR address cumulative impacts from vehicular traffic. • Requested that the traffic study evaluate traffic generated in the context of the Traffic Phasing Ordinance. Should also evaluate increased traffic related to trips to and from school facilities. • Requested that the DEIR address whether or not the project has the legal right to access the property site through the Koll Center and Birch Street. • Requested that the DEIR examine parking implications and whether	Sections 5.1, *Aesthetics*, 5.9, *Land Use and Planning,* 5.12, *Public Services,* and 5.14, *Transportation and Traffic*

Table 2-1
NOP Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
		or not parking will meet the City's Zoning Code requirements. • Requested that the DEIR address pedestrian access over and through Koll Center to Uptown Newport project. • Requested that the DEIR examine the interaction between residential and business uses. • Stated concerns about potential shadow issues within Koll Center. • Requested that the DEIR address school impacts, including potential impacts from construction of new school facilities. • Requested that the DEIR clarify the water supply assessment, as it is difficult to understand, and clarify all seemingly contradictory calculations contained in the document.	
State of California, Governor's Office of Planning and Research (12/8/11)	Not Applicable	• Confirmed receipt of NOP and noted distribution of NOP to appropriate state agencies and departments.	Not Applicable
The Gas Company (1/18/12)	Natural Gas	• Stated that there are existing facilities in the area to serve the proposed project. • Stated that the comment letter is not a contractual commitment to serve the project and is only provided as an informational service.	Section 5.15, Utilities and Service Systems
University of California, Irvine (1/9/12)	Land Use and Traffic	• Stated that the Initial Study assumed a portion of the North Campus is undeveloped open space, while the approved Long Range Development Plan for the area includes 950,000 gross square feet of office and/or research and development space and 435 multifamily units. • Requested that the DEIR analyze the impact of the projects vehicular traffic generation on the LRDP's traffic improvement program; impacts to UCI's vehicular, pedestrian, and bicycle circulation plans; and land use compatibility with existing and proposed UCI land uses.	Sections 5.10, *Land Use and Planning,* and 5.14, *Transportation and Traffic*

2.3 SCOPING MEETING

Prior to preparation of the DEIR, a public scoping meeting was held on December 15, 2011, for the proposed project. The scoping meeting was held to determine the concerns of responsible and trustee agencies and the community regarding the proposed project. The scoping meeting was held at the City of Newport Beach Council Chambers, and was attended by a number of community members and interested parties. Table 2-2 summarizes the issues identified at the scoping meeting, along with a reference to the section(s) of this DEIR where the issues are addressed.

Table 2-2
Scoping Meeting Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
Bruce D. Goettinger	Project phasing; bicycle and pedestrian transportation and safety; school district boundary impacts	• Comment regarding Phase 2 of project and the potential of it extending beyond the anticipated time frame (2017–2021). Inquired about the potential for second project phase to be extended. • Comment regarding the content, level of detail, complexity, and length of the EIR. City should be mindful of these when developing this EIR. • General concern with alternative mobility (bicycles, pedestrians, children) and their safety with regard to being introduced into a busy traffic area and office park. • Inquiry whether EIR will address bicycle path continuity with areas to the north and south. Comment about very dangerous biking locations, including the crossing at Jamboree Road/SR-73. • Noted that it would be logical for Uptown Newport students to attend Newport Mesa Unified School District (SAUSD) schools instead of Santa Ana Unified School District schools. Suggested that SAUSD attendance would result in dividing an existing community (per CEQA Land Use checklist).	Chapters 1, *Executive Summary*, and 3, *Project Description*, and Sections 5.12, *Public Services*, and 5.14, *Transportation and Traffic*
Travis Smith	Soil and groundwater impacts; project phasing; demolition impacts	• Noted the presence of several onsite wells and inquired about the scope of the technical assessments (what pollutants will be tested). Wanted to know the purpose of the wells onsite. • Asked if there was the possibility of the TowerJazz facility closing down earlier and therefore Phase 2 starting earlier. • Concern with demolition impacts.	Chapter 3, *Project Description*, and Sections 5.2, *Air Quality*, 5.7, *Hazards and Hazardous Materials*, 5.8, *Hydrology and Water Quality*, and 5.14, *Transportation and Traffic*

Table 2-2
Scoping Meeting Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
John Adams	EIR process; access, circulation, and traffic; parking; bicycle and pedestrian transportation and safety; land use impacts	• Concern that preparation of separate EIRs for the Koll Center and Uptown Newport projects is piecemealing under CEQA. Commented that the projects are essentially one project and should therefore be analyzed under one EIR. • Stated that Birch Street access is a private easement between Uptown Newport property and his property and the EIR should address access issues with Birch Street use intensifying under Phase 1 of the project. Concern that upon development of Phase 1 residential, TowerJazz traffic will exclusively use the private easement accessed from Birch Street and will create traffic congestion at this exit/entry drive. • Concern about parking availability, including loss of Jamboree Road street parking and potential of Koll Center users to use TowerJazz facility parking to avoid fees. • Safety and security concern on existing business uses from project-related pedestrian, bicycle, skateboarding activity. • Concern of traffic generated by public use of onsite parks. • Stated that response to Initial Study Checklist Land Use Question a) regarding division of an existing community was inappropriate and that the project would clearly divide an existing business community. Suggested that this issue be included in the EIR. • Parking impacts should be analyzed in the EIR. • Question concerning potential uses that could be developed on UCI property east of the project site across Jamboree Road.	Sections 5.9, *Land Use and Planning*, and 5.14, *Transportation and Traffic*

Table 2-2
Scoping Meeting Comment Summary

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
Jim Mosher	Population and housing; aesthetics and shade/shadow; EIR scope; school district boundary impacts	• Inquired about status of Koll Center EIR and project. • Comment about the recent Housing Element and how many potential residential units could be developed within the overall Airport Area. • Comment about product type, height, and bulk of buildings and whether these details will be available in the EIR. What level of detail will be available in the EIR? • Question about how shade/shadow impacts will be analyzed in the EIR if specific building heights and locations are not known. • Concern about the length of the EIR. • Suggestion that project applicant and City should request that school district boundaries be modified to include the project site within NMUSD instead of its current location within SAUSD. Surrounding area is within NMUSD and if future students attend schools within the SAUSD, this could be considered as physically dividing the community (per CEQA Land Use checklist question 'a').	Sections 5.1, *Aesthetics*, 5.11, *Population and Housing*, and 5.12, *Public Services*

2.4 SCOPE OF THIS DEIR

Based upon the Initial Study and Environmental Checklist Form (see Appendix A), the City of Newport Beach staff determined that a DEIR should be prepared for the proposed project. The scope of the DEIR was determined based on the City's Initial Study, comments received in response to the NOP, and comments received at the scoping meeting conducted by the City. Pursuant to Sections 15126.2 and 15126.4 of the State CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce these impacts to levels of insignificance or eliminate the impact altogether.

The information in Chapter 3, *Project Description*, establishes the basis for analyzing future project-related environmental impacts.

2.4.1 Impacts Considered Less Than Significant

Two environmental impact categories are identified here as not being significantly affected by or affecting the proposed project, and therefore are not discussed in detail in this DEIR. This determination was made by the City of Newport Beach in its preparation of the Initial Study. The following topical issues are not addressed in the DEIR:

- Agriculture and Forestry Resources
- Mineral Resources

2.4.2 Potentially Significant Adverse Impacts

Fifteen environmental factors have been identified as potentially significant impacts if the proposed project is implemented. The factors addressed in this DEIR are:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Utilities and Service Systems

2.4.3 Unavoidable Significant Adverse Impacts

This DEIR identifies three environmental topics with significant and unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. If the City, as the Lead Agency, determines that unavoidable significant adverse impacts will result from the project, it must prepare a "Statement of Overriding Considerations" before it can approve the project. A Statement of Overriding Considerations states that the decision-making body has balanced the benefits of the proposed project against its unavoidable significant environmental effects and has determined that the benefits of the project outweigh the adverse effects and, therefore, the adverse effects are considered to be acceptable. The impacts that were found in the DEIR to be significant and unavoidable are:

- Air Quality
- Land Use
- Noise

2.5 INCORPORATION BY REFERENCE

Per Section 15150 of the CEQA Guidelines, an EIR may incorporate by reference all or portions of other documents that are a matter of public record or are generally available to the public. The following documents are incorporated by reference in this DEIR, consistent with Section 15150 of the State CEQA Guidelines, and are available for review at the City of Newport Beach Planning Department.

- City of Newport Beach General Plan, 2006.
- City of Newport Beach General Plan Update EIR, prepared by EIP Associates, 2006.
- City of Newport Beach Municipal Code

2.6 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for a period of 45 days. Interested agencies and members of the public are invited to provide written comments on the DEIR to the City address shown on the title page of this document. Upon completion of the 45-day review period, the City will review all written comments and prepare written responses for each comment. A Final EIR (FEIR) will then be prepared incorporating all of the comments received, responses to the comments, and any changes to the DEIR that result from the comments received. This FEIR will be presented to the City for potential certification as the environmental document for the project. All persons who commented on the DEIR will be notified of the availability of the FEIR and the date of the public hearing before the City.

The DEIR is available to the general public for review at the following locations:

- City of Newport Beach Planning Division, 3300 Newport Boulevard, Newport Beach, CA 92663
- Newport Beach Public Libraries:
  - Central Library, 1000 Avocado Avenue, Newport Beach, CA 92660
  - Mariners Branch, 1300 Irvine Avenue, Newport Beach, CA 92660
  - Balboa Branch, 100 East Balboa Boulevard, Newport Beach, CA 92660
  - Corona del Mar Branch, 420 Marigold Avenue, Corona Del Mar, CA 92625
- Orange County Public Library, 1501 E. St. Andrew Place, Santa Ana, CA 92705

The DEIR will also be posted online on the City's website, http://www.newportbeachca.gov/ceqadocuments.

2.7 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that agencies adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code 21081 or adopted a Negative Declaration pursuant to 21080(c). Such a program is intended to ensure the implementation of all mitigation measures adopted through the preparation of an EIR or Negative Declaration.

The Mitigation Monitoring Program for the proposed project will be completed as part of the Final EIR and will be completed prior to consideration of the project by the Newport Beach City Council.

3. Project Description

3.1 PROJECT LOCATION

The 25.05-acre project site is within the Airport Area of the City of Newport Beach, County of Orange, California. It is situated approximately 0.6 mile southeast of John Wayne Airport and occupies Assessor's Parcel Nos. 445-131-02 and 445-131-03. It is on the west side of Jamboree Road, between Birch Street and the intersection of Von Karman Avenue and MacArthur Boulevard. The two existing onsite office and industrial buildings at 4311 and 4321 Jamboree Road are referred to as the Half Dome building and the TowerJazz facility, respectively.

Regional access to the site is from State Route 73 (SR-73) via Jamboree Road to the south and Interstate 405 (I-405) via Jamboree Road to the north, as shown in Figure 3-1, *Regional Location*. Vehicular access to the site is from Jamboree Road, Fairchild Road, Birch Street, and Von Karman Avenue. MacArthur Boulevard and Von Karman Avenue pass west of the site, and Birch Street passes to the north (see Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*).

3.2 PROJECT BACKGROUND

3.2.1 Planning Background

City of Newport Beach General Plan

The project site is in the City's "Airport Area" planning subarea, which is bounded by Campus Drive to the north and west, SR-73 to the south, and Jamboree Road to the east. This boundary also coincides with statistical area "L4" in the City's General Plan. As shown on Figure 3-4, *Airport Area Planning Designations,* the Uptown Newport project site is in a Mixed-Use District and the site is designated MU-H2, Mixed-Use District Horizontal-2. This designation applies to properties located in the Airport Area and provides for a horizontal intermixing of uses that may include regional commercial office, multifamily residential, vertical mixed-use buildings, industrial, hotel rooms, and ancillary neighborhood uses. A total of 2,200 residential units are permitted within the MU–H2 designated properties to replace existing office, retail, and/or industrial uses, of which a maximum of 550 units may be developed as additional infill units.

General Plan Land Use Policies for the mixed-use districts are included as policies LU 6.15.4 through 6.15-23. A key land use policy (LU 6.15.7) for the district requires residential units to be developed at a minimum density of 30 units and a maximum of 50 units per net acre (prior to any affordable housing density bonus) as averaged by the total area of the residential village. Strategy and Process policies require:

- Regulatory Plans. A regulatory plan for each 10-acre minimum residential village to coordinate the location of new parks, streets, and pedestrian ways, and a strategy to accommodate neighborhood serving commercial uses and other amenities (Policy LU 6.15.10).

- Conceptual Development Plan Area. One conceptual development plan for the area depicted on General Plan Figure LU22 (see DEIR Figure 3-4)(Policy LU 6.15.11).

- Development Agreements. A Development Agreement for all projects that include infill residential units shall define the improvements and public benefits to be provided by the developer in exchange for the City's commitment for the number, density, and location of the housing units (Policy LU 6.15.12).

Integrated Conceptual Development Plan

Pursuant to the General Plan requirement (Policy LU 6.15.11), the Airport Business Area Integrated Conceptual Development Plan (ICDP) was approved by the Newport Beach City Council on September 28, 2010. It provides for the redevelopment of the approximately 25-acre Uptown Newport site (formerly known as the Conexant property), and 12.7 acres between Birch Street and Von Karman Avenue (Koll property), with new residential development and open space (see Figure 3-5). The ICDP would result in up to 1,504 residential units, 1,244 on the Uptown Newport site and the remaining 260 on the Koll property. No office or industrial uses would be removed within the Koll property, and the 260 units would therefore be "additive." On the Uptown Newport site, up to 632 units would replace existing industrial and office uses, which would be demolished, 290 units would be additive, and 322 units would be density bonus units. Together, the two properties would use all 550 additive units allocated to the ICDP area by the City's General Plan.

According to the ICDP, the Uptown Newport project would result in the complete redevelopment of the property from an industrial/office complex to a master-planned residential village. In addition to the residential units, the ICDP allows up to 11,500 square feet of ground-level retail and commercial uses and neighborhood park areas. A summary of the residential unit allocation for the ICDP is shown in Table 3-1.

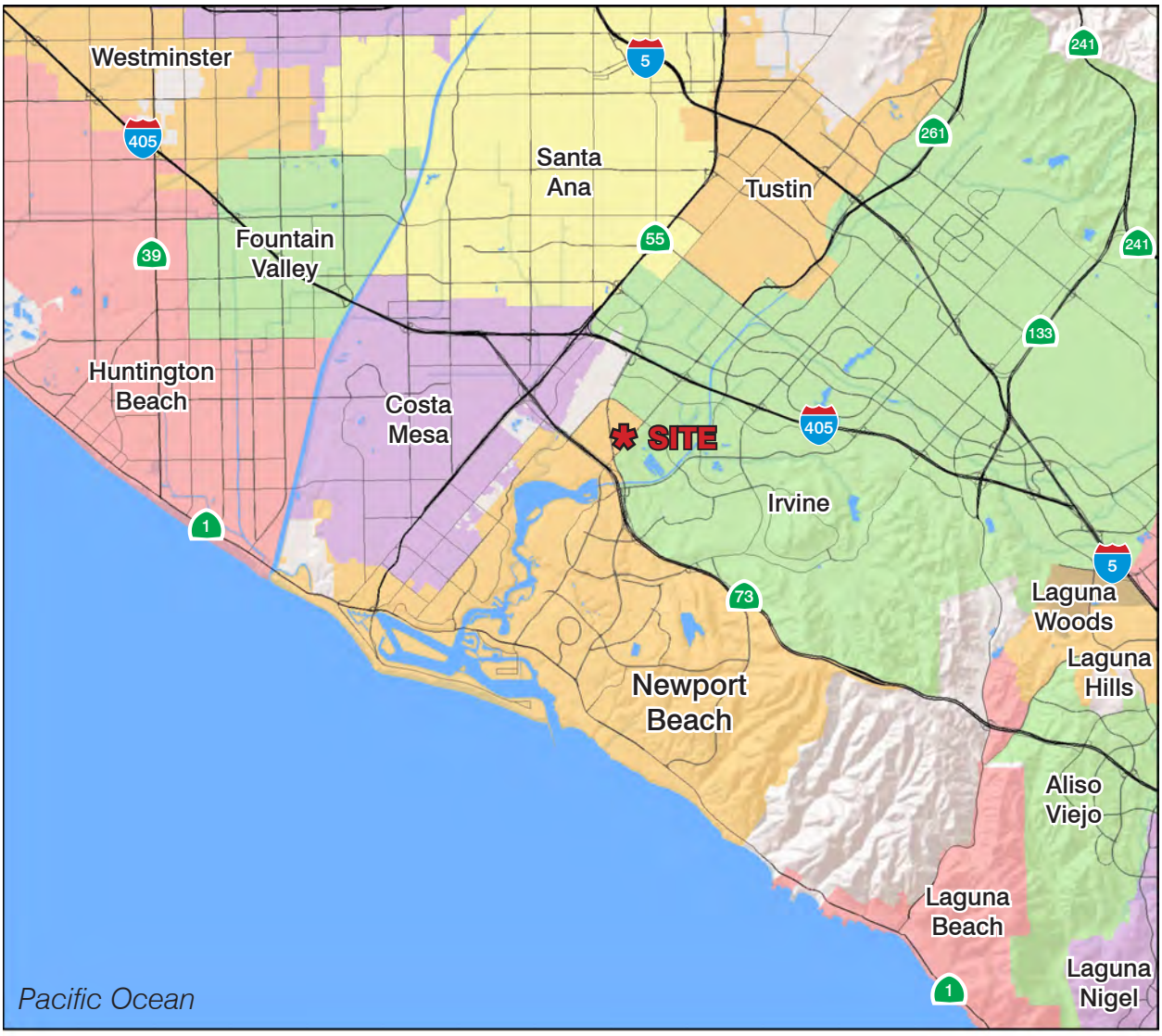
Table 3-1
ICDP Unit Allocation Summary

Property	Additive	Replacement	Density Bonus	Totals
Uptown Newport	290	632	322	1,244
Koll	260	—	—	260
Total	**550**	**632**	**322**	**1,504**

The ICDP is a prerequisite for the preparation of the regulatory documents required by the General Plan for the project area. As noted in the General Plan summary above, these documents include a Regulatory Plan and a Development Agreement.

The zoning designation of the project site is Industrial Site 1 of the Koll Center Newport Planned Community (PC-15). Permitted uses in this zoning designation include light industrial and support office- and commercial-related uses. In order to accommodate the proposed project, an amendment to the PC-15 zoning designation would be required to remove the subject property from the Planned Community district and a new Planned Community Development Plan (PC Development Plan) would be adopted as the Regulatory Plan for the project site. The PC Development Plan would implement the Newport Beach General Plan and ICDP and serve as the controlling zoning designation and ordinance for the property. The PC Development Plan would outline the development standards and permitted uses for Uptown Newport. Since the project would be built over time, existing land uses on the site would continue to be allowed as nonconforming uses and not be required to conform to the regulations outlined in the PC Development Plan. The regulations are also intended to provide a range of development options and maintain flexibility to accommodate changes in the economy, land value, and demand.

Regional Location



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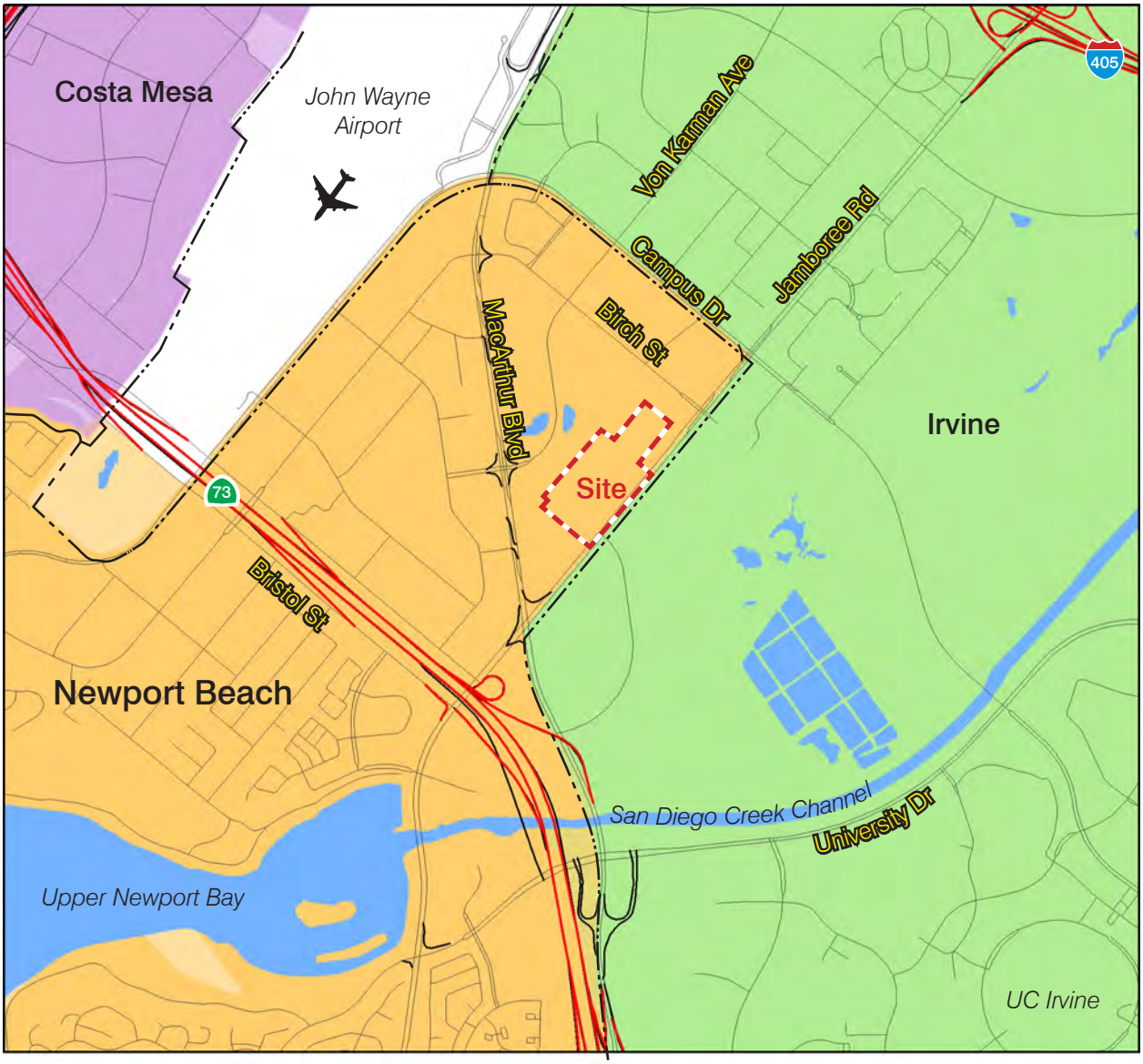
Local Vicinity



Site Boundary

City Boundary

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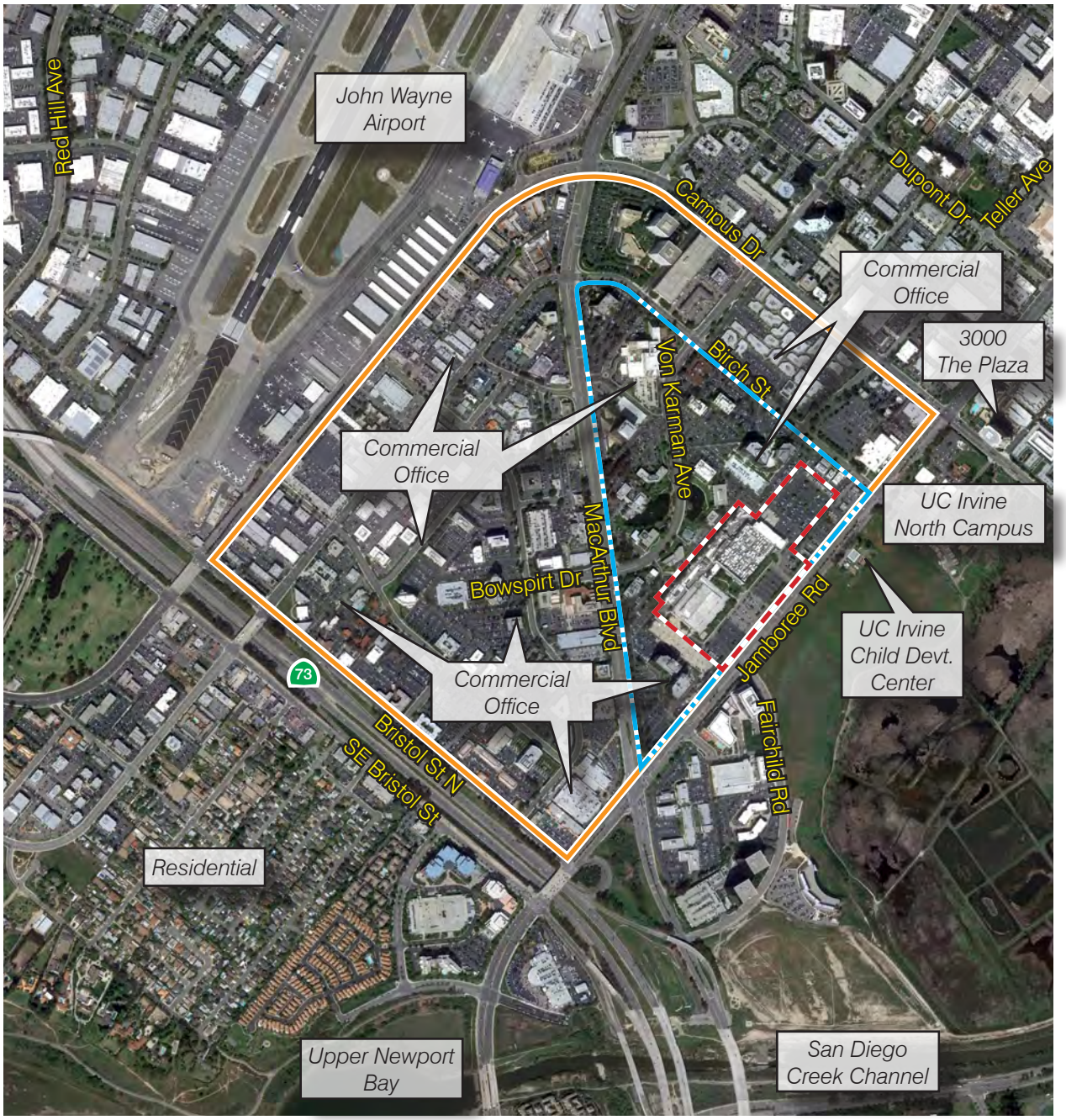
Aerial Photograph



Airport Area

Integrated Concept Development Plan

Project Site

0 1,500
Scale (Feet)

Source: Google Earth 2011

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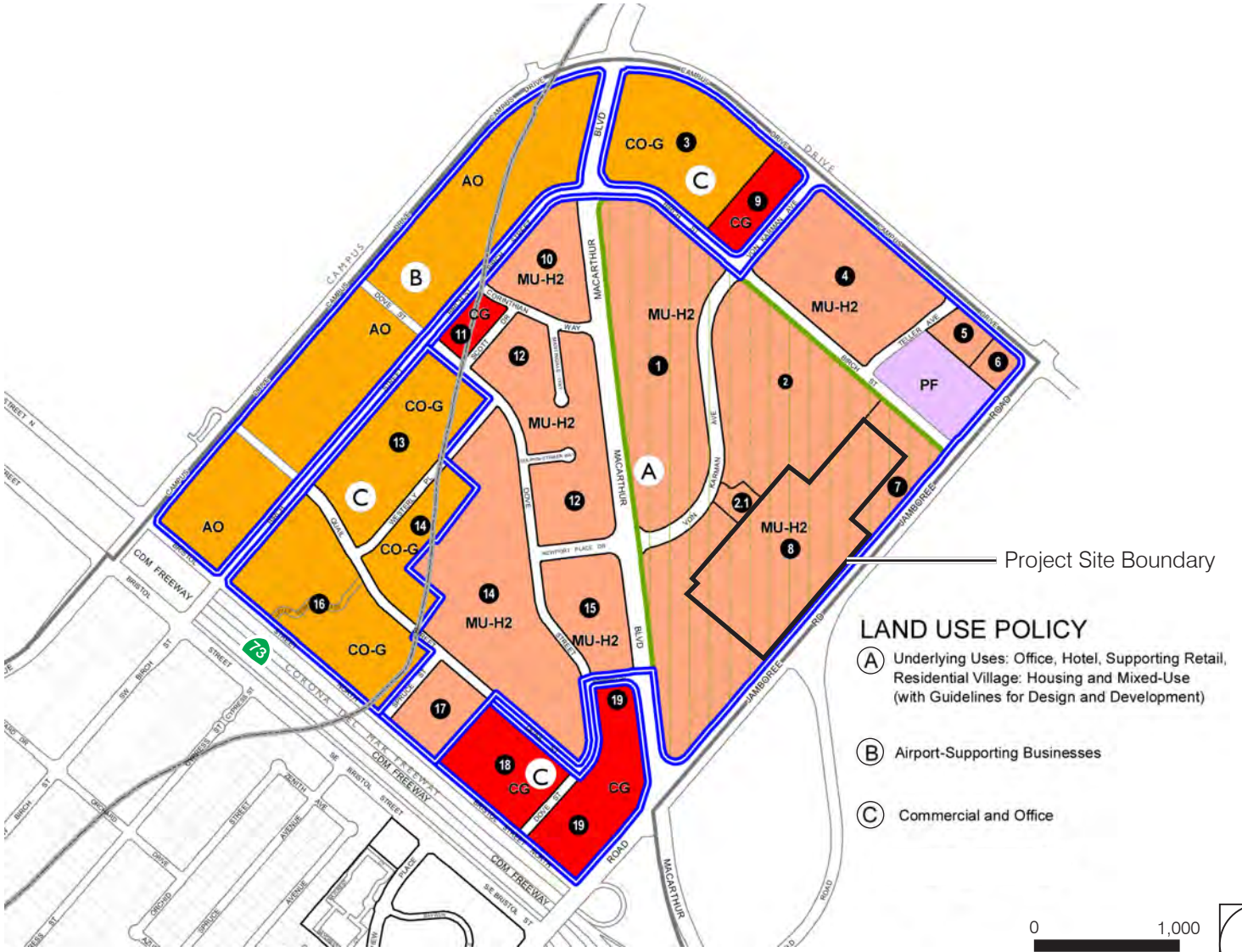
Airport Area Planning Designations



Source: City of Newport Beach General Plan 2006

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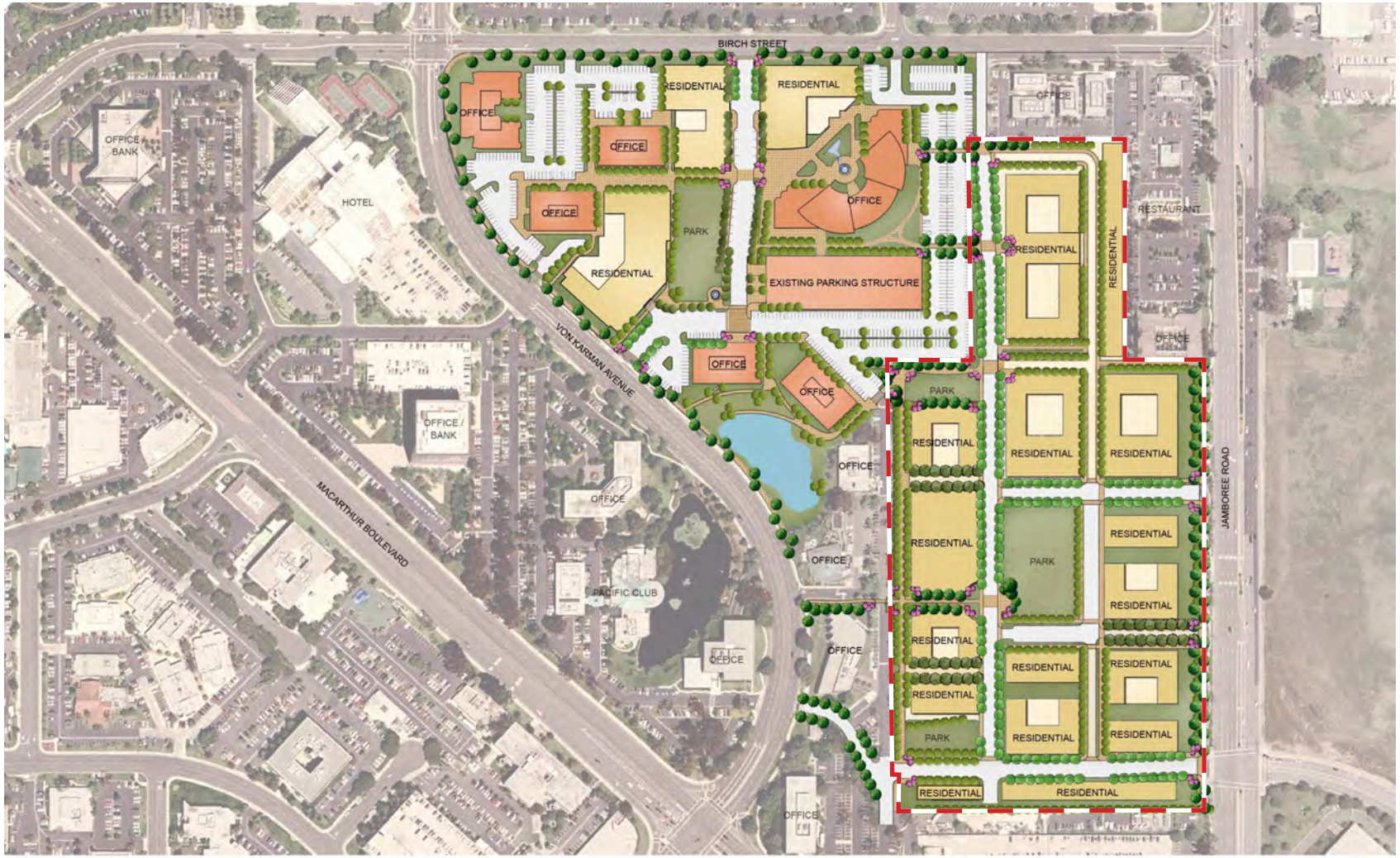
Integrated Conceptual Development Plan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3.2.2 Related Development Proposals

Uptown Newport Village Specific Plan: Conexant

Prior to the current application, Conexant , the previous property owner submitted a development application to the City, whose proposed land use was the same as the currently proposed Uptown Newport project, including 1,244 residential units and up to 11,500 square feet retail commercial. Similarly, the project was proposed to be developed in two phases. A Notice of Preparation (NOP) of an Environmental Impact Report was circulated June 1, 2010, and a CEQA Initial Study completed. The EIR was initiated but never completed for the project. The current Uptown Newport project applicant purchased the property from Conexant in December 2010.

Koll Project

A project application for development of the Koll property (the adjacent 12.7 acres within the ICDP), was submitted to the City on July 13, 2011. The application requests an amendment to the Koll Center Planned Community Development Plan for the construction of up to 260 residential units, consistent with the ICDP. The project would be an infill project to be built on existing surface parking and landscaping areas within the master planned park. The application anticipates three residential buildings of varying heights (54 feet to 90 feet) and the average density is projected to be in the low 40s du/ac. The proposed development would incorporate approximately 3,400 square feet of retail space to be located in the corner of one of the residential buildings. A one-acre neighborhood park would be provided for public uses and would be accessible to all residents (see Figure 3-5, *Integrated Conceptual Development Plan*).

The environmental review for the Koll project, including a separate EIR, is proposed to proceed separately from the Uptown Newport project. This DEIR addresses the Koll project as a cumulative, related project and incorporates the information available for the project at the time of preparation of the DEIR.

3.2.3 Existing Improvements

Site History of Industrial Use

The Uptown Newport project site has been used for the development and manufacturing of radio components and semiconductors for telecommunication equipment, including facsimiles, modems, and high-speed data transmission equipment. The buildings (4311 and 4321 Jamboree Road) were built between 1967 and 1969 and between 1968 and 1972, respectively. Rockwell Semiconductor Systems acquired the property in 1972 and Conexant Systems purchased the property in 1990 and held it until 2010. TowerJazz is the majority tenant and operates a semiconductor manufacturing facility at the property. The environmental history of the site is summarized in Section 5.7, *Hazards and Hazardous Materials.*

Existing Site Improvements

Existing site conditions are depicted in Figure 3-3, *Aerial Photograph*. The Half Dome building (4311 Jamboree Road) in the southwestern part of the project site is one story and 126,675 square feet. It is used for office, light industrial, storage, and café services. The northernmost building, the TowerJazz facility (4321 Jamboree Road) is two and three stories and 311,452 square feet. A Southern California Edison (SCE) substation exists along the southwestern boundary of the site. The balance of the site consists of landscaped areas and surface parking lots. Vehicular access to the project site is via two driveways from Jamboree Road, including Fairchild Road, a driveway from Birch Street, and a driveway connection to Von Karman Avenue.

3.3 STATEMENT OF OBJECTIVES

The following objectives have been established for the Uptown Newport project and will aid decision makers in their review of the project and associated environmental impacts:

- Implement the goals and policies that the Newport Beach General Plan has established for the Airport Area and the Integrated Conceptual Plan Development Plan.
- Develop a mixed-use residential village characterized by a diversity of building and housing types that is consistent with the prescribed minimum density of 30 dwelling units and maximum of 50 dwelling units per net acre average over the 25.05 acre project site.
- Develop up to 11,500 square feet of retail commercial uses to serve local residents, businesses and visitors.
- Provide housing in close proximity to jobs and supporting services, with pedestrian-oriented amenities that facilitate walking and enhance livability.
- Integrate neighborhood parks inter-connected by pedestrian walkways to encourage a sense of community.
- Develop an attractive, viable project that yields a reasonable return on investment.
- Provides for the phased transition from existing industrial and office uses to a mixed-use residential village.
- Provide beneficial site and improvements including implementing a Water Quality Management Plan.

3.4 PROJECT CHARACTERISTICS

"Project," as defined by the CEQA Guidelines, means "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100–65700" (14 Cal. Code of Reg. 15378[a]).

3.4.1 Proposed Site Plan and Land Use

At buildout, Uptown Newport is intended to be a multi-family residential community with neighborhood-serving retail uses. The proposed site plan and associated land use statistics are shown on Figure 3-6, *Site Plan and Phasing Plan*. Consistent with the ICDP and General Plan allocated residential units and commercial square footage, the site plan includes up to 1,244 residential units, 11,500 square feet of retail, and 2 acres of planned park area. The land use summary by phase is summarized in Table 3-2, *Land Use Summary.*

Table 3-2
Uptown Newport Land Use Summary

	Phase 1	Phase 2	Total
Number of Units	680	564	1,244
Developable Area (ac.)	8.65	10.02	18.67
Park Area (ac.)	1.03	1.02	2.05
Retail (sf)	11,500	0	11,500
Right of Way Area (ac.)	2.61	1.72	4.33
Total Area (ac.)	**12.29**	**12.76**	**25.05**

Housing

A variety of housing developments are anticipated. Residential product types would be for sale and rent with a mix of apartments, townhouses, and condominiums. Residential buildings may include low-rise row-houses and 4- and 5-story apartments or condominiums featuring a range of floor plan sizes. Mid-rise to high-rise buildings are also envisioned. High rise buildings would not exceed 150 feet in height. Live-work units would also be a permitted use. Of the total 1,244 residential units, up to 184 units would be set aside for affordable housing. The proposed project would comply with the City's affordable housing requirements.

Commercial

A retail component would provide neighborhood-serving retail and services. Permitted uses would include but not be limited to restaurants, retail uses such as bakeries, clothing/boutique shops, jewelry, and convenience stores. Business, medical, dental, and professional offices would be permitted uses as well as personal service uses such as dry cleaners, hair salons, optometry, and postal services. The permitted and conditional uses for Uptown Newport are detailed in the Land Uses, Development Standards and Procedures section of the PC Development Plan.

Parks

The two 1-acre minimum park areas would be principal focal points for the development. The parks would be privately maintained but publicly accessible. In addition to the neighborhood parks, public open space areas, private open space area, and ancillary amenities would be provided to serve residents and visitors.

Circulation

The development would be accessed from two intersections at Jamboree Road and one access from Birch Street. An emergency access would be provided to Von Karman Avenue via Koll Center Newport office park through an existing access drive. An internal pedestrian and open space network is envisioned to connect plazas, courtyards, parks, paseos, and retail uses. Minimum five-foot-wide sidewalks would be provided on both sides of internal streets.

Operations

At buildout, Uptown Newport is projected to house approximately 2,724 residents and employ approximately 26 people in the retail component of the project.[1] The hours of the retail and office uses would be typical of

[1] Based on 2.19 persons per household and 1 employee per 450 SF/retail (Census 2010; SCAG 2001).

neighborhood-serving uses and would be governed by the PC Development Plan. As envisioned, the project could also host a variety of special events and temporary uses throughout the year, including street fairs, farmers' markets, parades, trade shows, car shows, pageants, community concerts, outdoor displays, and recreation/entertainment events, subject to an applicable Special Event Permit issued by the City.

3.4.2 Project Construction and Infrastructure

General Phasing

The project would be developed in two primary phases, as shown on Figure 3-6, *Site Plan and Phasing Plan,* and detailed in Table 3-2, *Land Use Summary.* The first phase of the project is projected to commence in 2013 and be completed by 2018. Timing for Phase 2 would be contingent on the existing lease of the TowerJazz building, which is currently set to expire in March 2017, but could be extended to as late as March 2027. This DEIR conservatively assumes that Phase 2 could commence as early as spring 2017 with buildout through 2021.

The operation of the TowerJazz facility, an existing semiconductor manufacturing facility, is expected to continue as an interim use after the development of Phase 1. This DEIR, therefore, addresses the potential impacts of the Phase 1 development (an interim condition with 680 residential units and 11,500 square feet of commercial uses) operating adjacent to the TowerJazz facility. Similarly, an SCE substation at the northwest corner of Fairchild Road and Jamboree Road would remain after Phase 1 development and be eliminated during Phase 2 development.

Demolition, Grading, and Construction

Summary demolition, grading, and construction information by project phase is provided in Tables 3-3, *Construction Schedule and Duration,* and 3-4, *Earthwork/Material Quantities and Construction Trips.* Anticipated construction equipment by development phase is shown in Table 3-5, *Construction Equipment.* The following describes demolition, grading (earthwork), and construction phases for both Phase 1 and Phase 2 development.

Phase 1

Phase 1 would include demolition of the 126,675 square feet, single-story building at 4311 Jamboree Road (Half Dome building). This building is currently used for office, light industrial, storage, and care services. Demolition activities would involve removing equipment, furniture, and machinery from the Half Dome building; abating asbestos and lead-based paint as needed; decommissioning utilities serving the building; and removing foundations, footings, and above-ground storage tanks. The asphalt parking lot, light fixtures, and landscaped islands would also be removed. An estimated 15,277 tons of construction debris and concrete would need to be removed from the site.

The grading operation would involve cutting and filling the site to establish building pads, roadway sub-grades, and park areas. Phase 1 grading would require interim slopes and/or retaining walls along the interface with the TowerJazz building and its associated mechanical equipment areas. The grading concept is based on one level of subterranean parking within the larger building envelope and results in a balance of cut and fill earthwork. If a second subterranean parking level is developed, up to approximately 90,000 cubic yards of material would require to be exported from the site. Figure 3-7, *Conceptual Grading and Earthwork: Phase 1 and Phase 2,* shows the anticipated areas for cut and fill, depth of grading and finished elevations, and total earthwork for each project phase (summarized in Table 3-3).

Table 3-3
Construction Schedule and Duration

	Phase 1	Phase 2	Total
Hours of Construction*			
Monday–Friday	7:00 am–6:30 pm	7:00 am–6:30 pm	NA
Saturday	8:00 am–6:00 pm	8:00 am–6:00 pm	NA
Activity Duration			
Demolition	3 months (77 days)	4 months (103 days)	Not sequential
Site Improvements	6 months (155 days)	6 months (155 days)	Not sequential
Building Construction (this phase to overlap with site improvement phase)	Approx. 54 months	Approx. 41 months	Overall project development projected to extend approx. 91 months (7.5 years)
Total Phase (phases overlap)	Approx. 61 months (5 years)	Approx. 53 months (4.5 years)	Approx. 7.5 years

* Construction hours are based on Section 10.28.040 (Construction Activity, Noise Regulations) of the City's municipal code.

Table 3-4
Earthwork/Material Quantities and Construction Trips

Materials	Phase 1	Phase 2	Total
Demolished Materials[1]	15,277 tons	25,658 tons	40,935 tons
Earthwork			
Cut (raw)	48,200 CY	50,300 CY	98,500 CY
Fill (raw)	48,900 CY	65,200 CY	114,100 CY
Net Export (if 2nd subterranean parking level included)	Up to 90,000 CY	Up to 100,000 CY plus approx. 29,000 CY remediated soils	190,000 CY
Construction Trips (Round Trips)[2]			
Demolished Materials and Site Work (haul trucks)	23 trips/day	29 trips/day	NA
Earthwork export (haul trucks) 39 days Phase 1, 47 days Phase 2	288 trips/day	343 trips/day	NA

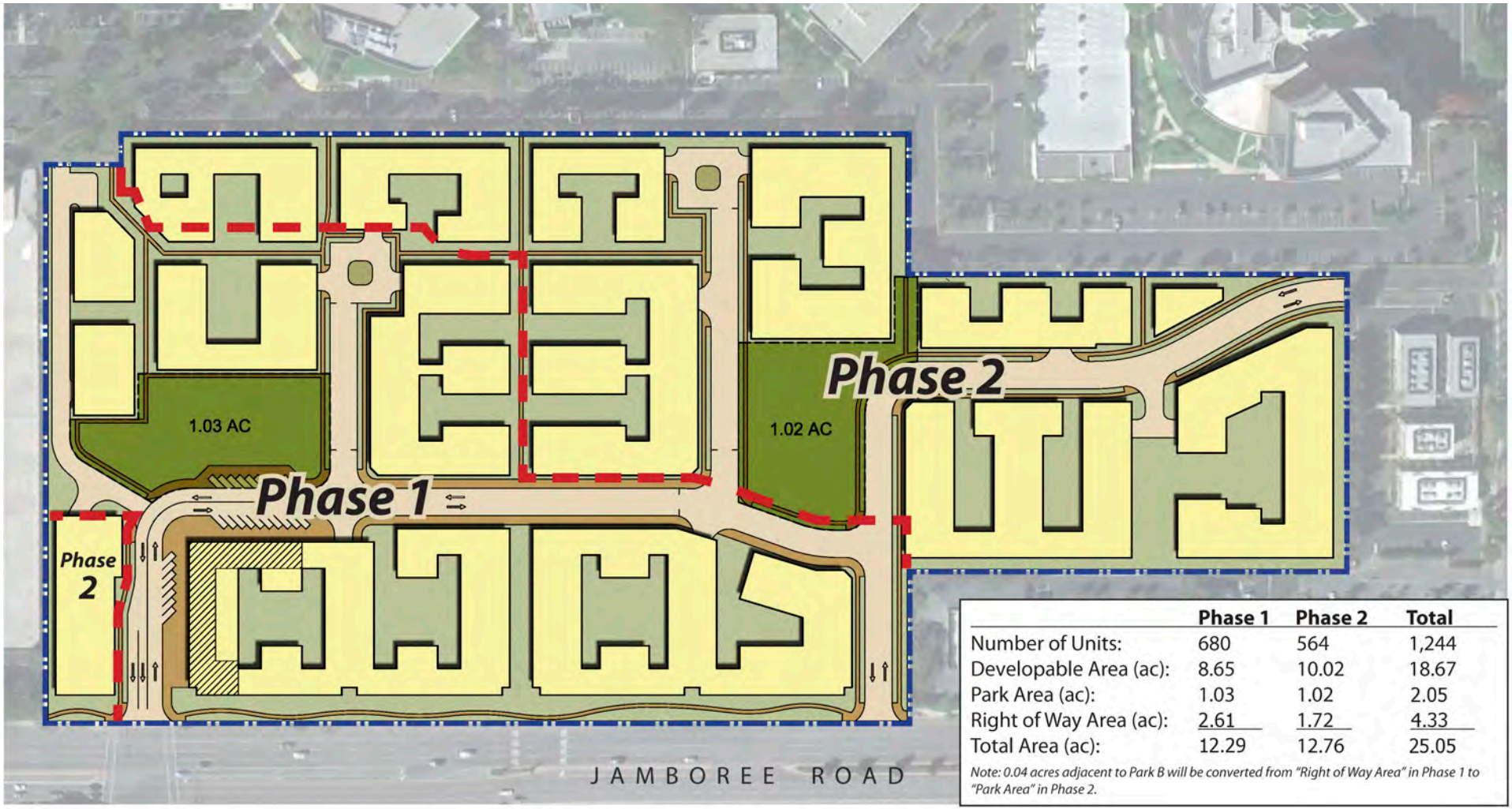
Notes: CY = cubic yards; NA = not applicable
[1] Number of trips is based on round-trips and estimated 16 CY/haul truck.
[2] Demolished materials include building, concrete, asphalt, and landscape materials.

Table 3-5
Construction Equipment

Project Subphase (for both Phase 1 and Phase 2)	Equipment Type	Quantity	Truck Trips Per Day (Phase 1)*	Truck Trips Per Day (Phase 2)*	Days (Phase 1)	Days (Phase 2)
Demolition	Concrete Saws	2	23	29	66	88
	Cad Skid Steers	3				
	Excavators (75k lbs)	2				
	Excavators (100k to 175k lbs)	3				
	Track Loaders	2				
Rough Grading	D8R Dozer	1	144	172	39	47
	627F Scrapers	2				
	824C Compactor	1				
	14F Blade	1				
	Water Truck	1				
Wet Utilities	330 Excavators	2	2	2	83	85
	3.5 Yard Loaders	2				
	Dozer	1				
	Crew Trucks	2				
Concrete	5700-C Curb and Gutter Machine	1	105	105	18	12
	Wheel Loader	1				
	Concrete Trucks	105				
Asphalt	Paver	1	440	440	18	18
	Roller	2				
	Motor Grader	1				
	Seal Coater	1				
	Conveyor Belt Grinder	1				
	Wheel Loader	1				
	Dump Truck Loads	440				
Walls	Pettibone	1	545	545	20	10
	Paving Vendor Truck	545				
Building Construction	Cat 325L Excavators	3	8	8	992	992
	Cat CP563C Compactor	1				
	Grove TR760 60-Ton Crane	1				
	Mantiwoc 3900 Track Crane	1				
	Cat D9R Dozer	1				
	Cat 980G Front End Loader	2				
	Lincoln Classic IIID Welder	6				
	Cat 14H Grader	1				
	HHDT Freightliner FLD 120SD	8				
Architectural Coating	—	—	—	—	175	140

Source: Shopoff Management, Inc.
Note: For a detailed list and breakdown of the construction equipment, quantity and trips please refer to Appendix C.
* All trips shown are round-trips.

Site Plan and Phasing Plan



	Phase 1	Phase 2	Total
Number of Units:	680	564	1,244
Developable Area (ac):	8.65	10.02	18.67
Park Area (ac):	1.03	1.02	2.05
Right of Way Area (ac):	2.61	1.72	4.33
Total Area (ac):	12.29	12.76	25.05

Note: 0.04 acres adjacent to Park B will be converted from "Right of Way Area" in Phase 1 to "Park Area" in Phase 2.

Site Boundary

Phasing Boundary

Ground-Level Neighborhood-Serving Retail

0 200
Scale (Feet)

Source: Shopoff Management, Inc. 2011

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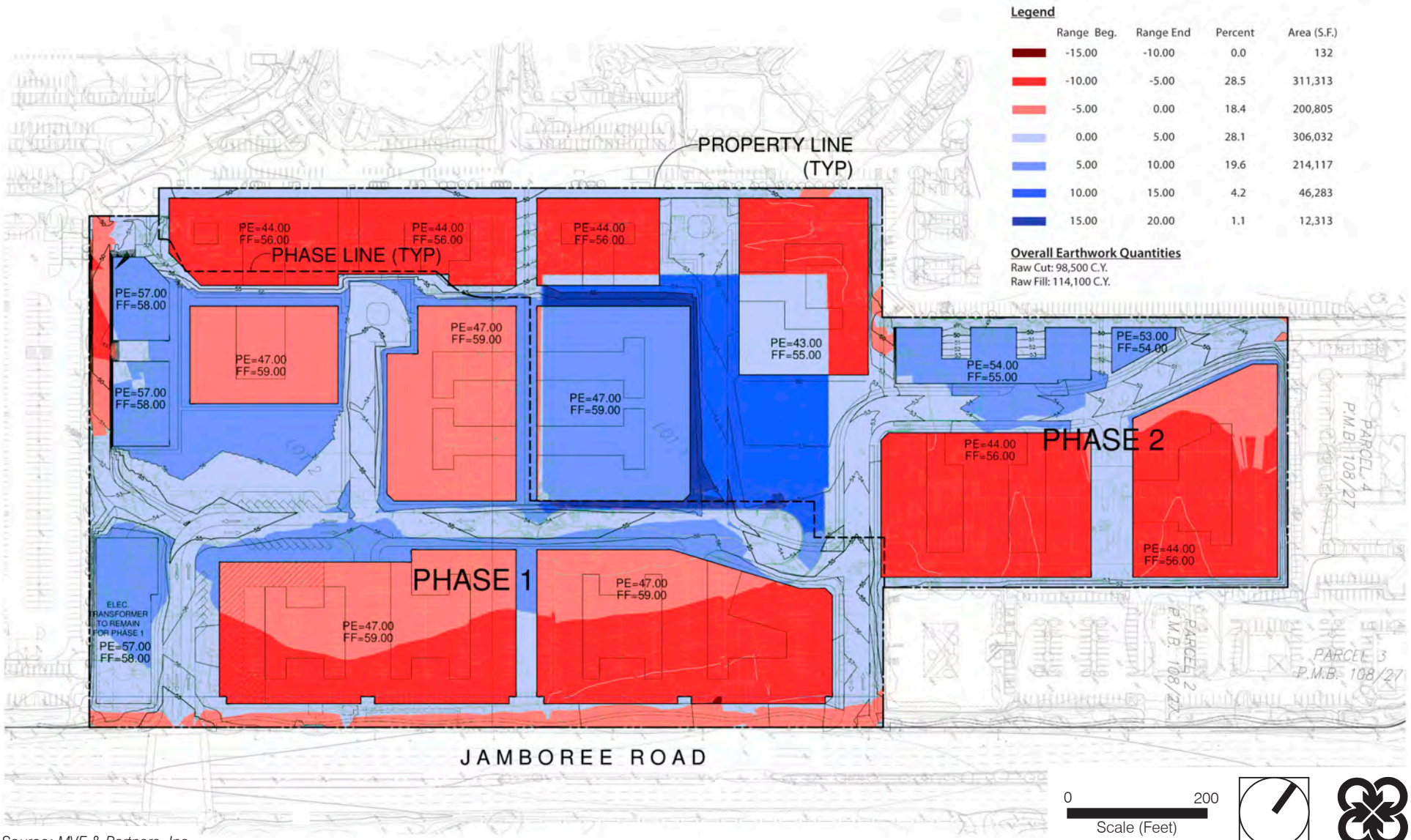
Conceptual Grading and Earthwork: Phase 1 and Phase 2



Source: MVE & Partners, Inc

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Phase 2

Phase 2 would include demolition of the 311,452 square-foot TowerJazz building at 4321 Jamboree Road and associated mechanical equipment located along the northwestern property boundary. Demolition activities would involve removing equipment, furniture, and machinery from the TowerJazz building; abating asbestos and lead-based paint; and decommissioning utilities serving the facility, including the SCE substation and mechanical equipment. Activities would include removal of foundations and footings, above-ground storage tanks, and asphalt parking lot on the northeastern side of the property. Demolished materials would be recycled on- or offsite, as feasible.

Site preparation for the second phase of the project would include removal of undocumented fill,[2] stockpiles, vegetation, and interim retaining walls and slopes. Soil and groundwater remediation would also be necessary to facilitate Phase 2 development. An estimated 29,000 tons of soil removal within an area of 22,160 square feet at 5 to 30 feet below ground surface has been estimated. These soils would be transported offsite for disposal at a permitted facility. An estimated 80 to 90 percent of the 29,000 tons of removed soils is anticipated to be classified nonhazardous and may be accepted at an approved and permitted municipal solid waste landfill. The remaining soils (10 to 20 percent) that are classified hazardous waste are anticipated to be disposed of at a hazardous waste landfill. Groundwater remediation under the oversight of the Regional Water Quality Control Board, already underway as of 2012, is anticipated to be completed within 1 to 3 years, then monitored for an additional 2 to 3 years.

Grading for Phase 2 would be designed to optimize the balance of cut-and-fill material. The grading concept assumes one level of subterranean parking within the larger building envelope. Should two levels of subterranean parking be provided, approximately 100,000 cubic yards would need to be exported from the project site (see Figure 3-7, *Conceptual Grading and Earthwork: Phase 1 and Phase 2*).

Infrastructure

Circulation

Phase 1

The circulation plan for Phase 1 is shown in Figure 3-8. For this phase, the project site would be accessed by two intersections on Jamboree Road: the existing signalized entry opposite Fairchild Road and an unsignalized intersection north of the Fairchild Road intersection. The unsignalized intersection would be restricted right- and left-turn ingress and right-turn-only egress.

The onsite roadway system would be privately owned and maintained, but open to the public. Access to the subterranean parking structures would be provided along internal private streets. Street parking would be available in designated areas. Roadway widths, turning radii, and turn-around dimensions would be designed to accommodate truck movements and fire equipment.

As shown in Figure 3-8, *Phase 1 Circulation Plan*, employee access to the TowerJazz parking area would be from the northernmost Jamboree Road intersection and the existing access easement from Birch Street. The Jamboree Road access would be gated to prohibit Uptown Newport resident entry into the TowerJazz parking lot. The Phase 1 plan would also provide emergency vehicle access via the Koll property and vehicular access to the SCE substation at the south end of the property.

[2] Undocumented fill is artificial fill from previous development activity.

Pedestrian circulation for Phase 1 would be provided through a sidewalk system on each of the internal streets. These paths, as well as paseos between buildings and around the park, would connect residential buildings with the onsite retail uses, parks, and adjacent developments. The right-of-way for a future Class 1 bike trail would be provided along Jamboree Road.

Phase 2

As shown in Figure 3-9, *Phase 2 Circulation Plan,* for buildout of the project, the internal roadway system would include a connection to Birch Street via the existing access easement. The two intersections at Jamboree Road would be maintained, as well as the emergency vehicle access via the Koll property.

Pedestrian improvements would complete elements from the site to connect to the adjacent Koll and nearby properties.

Storm Drainage and Water Quality

Phase 1

Runoff from the site is currently conveyed by underground storm drains to the existing drainage ponds along Von Karman Avenue to the northwest of the property. During the development of Phase 1, much of the existing underground site storm drain system would remain in place to serve the TowerJazz facility and parking area. Within the Phase 1 development area, existing underground lines would be removed during site preparation and grading and a new underground storm drainage system installed. The site would continue to discharge into the offsite drainage ponds. The drainage system would be designed to comply with the requirements of the North Orange County MS4 Permit that regulates stormwater discharges. Best management practices as outlined in the water quality management plan (WQMP) would be implemented. Low impact development (LID) measures would be implemented to minimize impacts to stormwater runoff quality and quantity. Such measures would include infiltration with bioretention in landscape and park areas, planter boxes with underdrains, vegetated filter strips, and proprietary treatment systems.

Phase 2

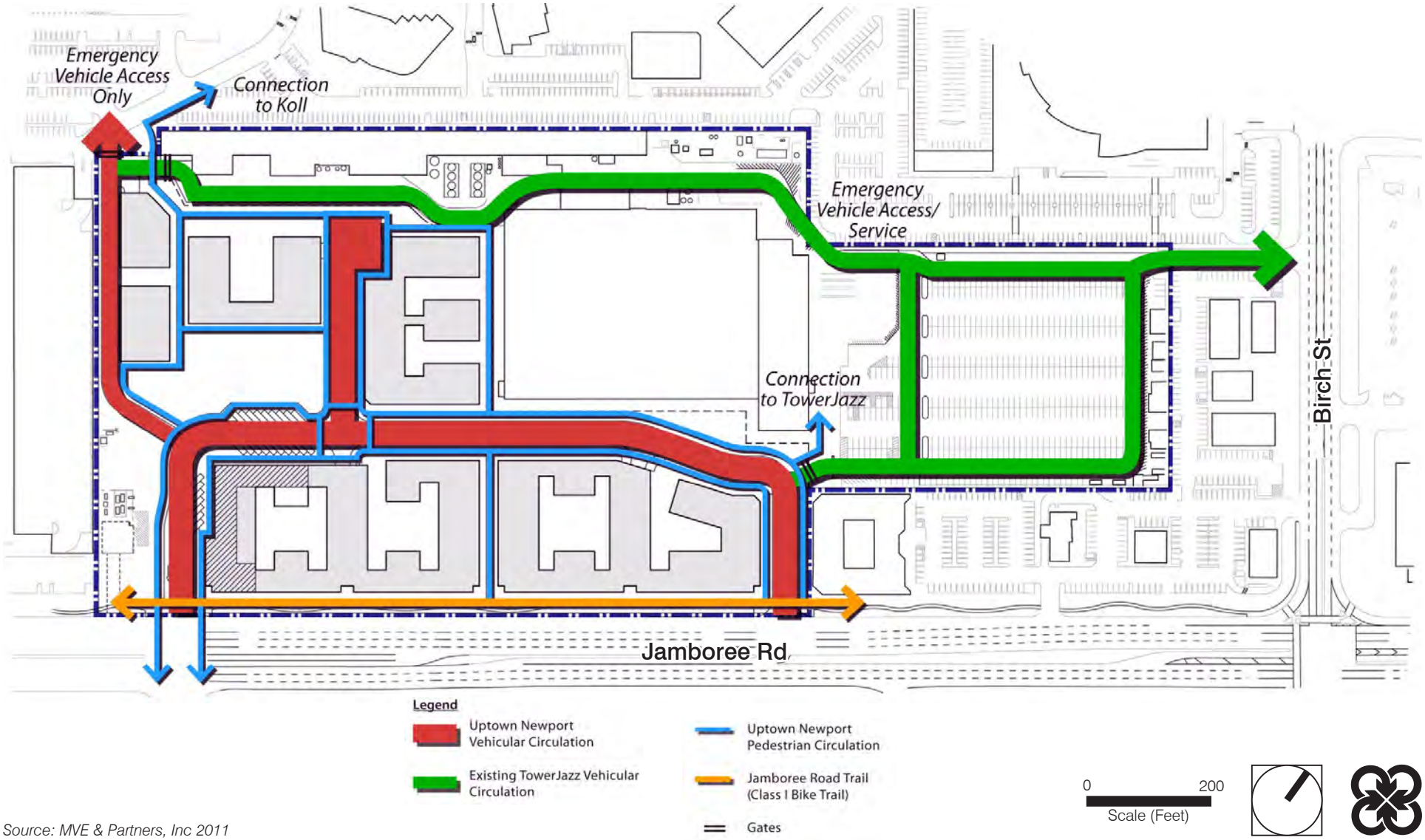
The completed storm drainage system upon completion of Phase 2 is shown in Figure 3-10, *Storm Drainage Concept: Phase 1 and Phase 2.* Upon demolition of the TowerJazz facilities, the Phase 1 storm drain system would be extended to the northwestern property line to connect with the existing offsite system. Existing storm drains in the Phase 2 area would be removed and replaced with a new underground system that would tie into the offsite public storm drain system in the Koll site. Drainage for the entire project site would continue to discharge into the drainage ponds in the Koll site.

Water and Sewer Improvements

Water System: Phase 1 and Phase 2

The proposed water system at buildout is shown as Figure 3-11, *Proposed Water System: Phase 1 and Phase 2.* It is anticipated that the Phase 1 onsite water system would connect to an existing Irvine Ranch Water District (IRWD) line in Jamboree Road. The system must include connections to supply both domestic and fire protection water to the TowerJazz facility.

Phase 1 Circulation Plan



Source: MVE & Partners, Inc 2011

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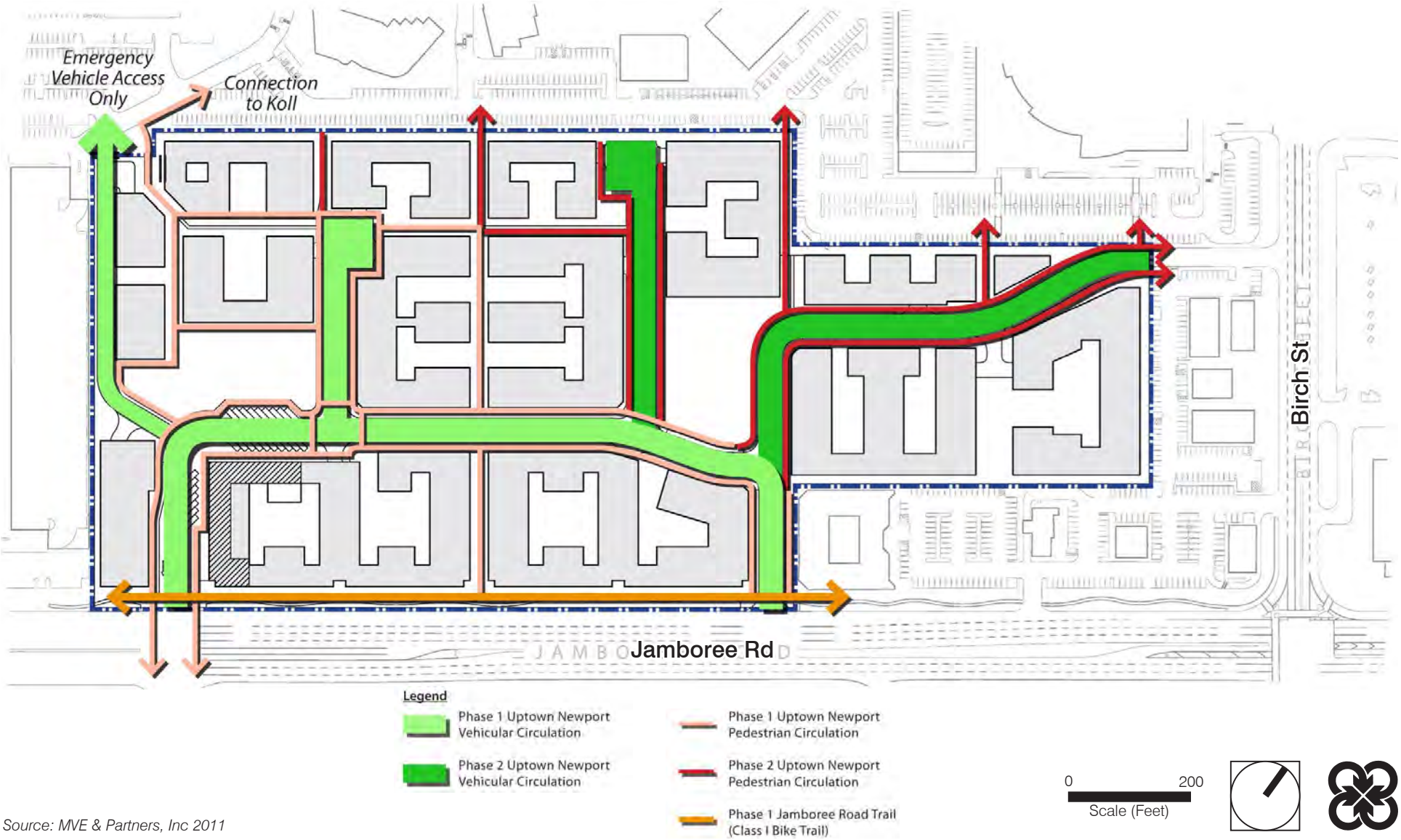
Phase 2 Circulation Plan



Source: MVE & Partners, Inc 2011

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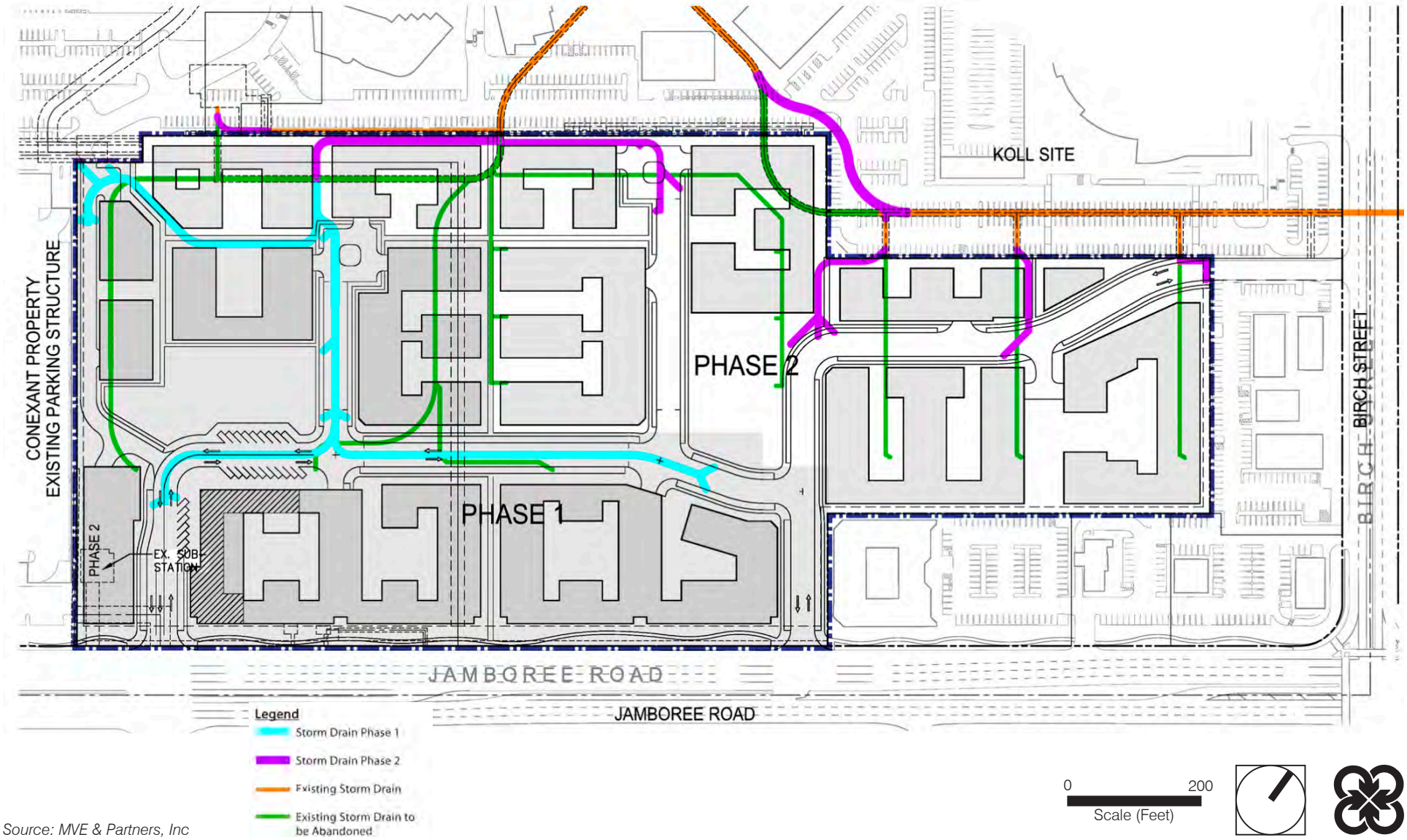
Storm Drainage Concept: Phase 1 and Phase 2



Source: MVE & Partners, Inc

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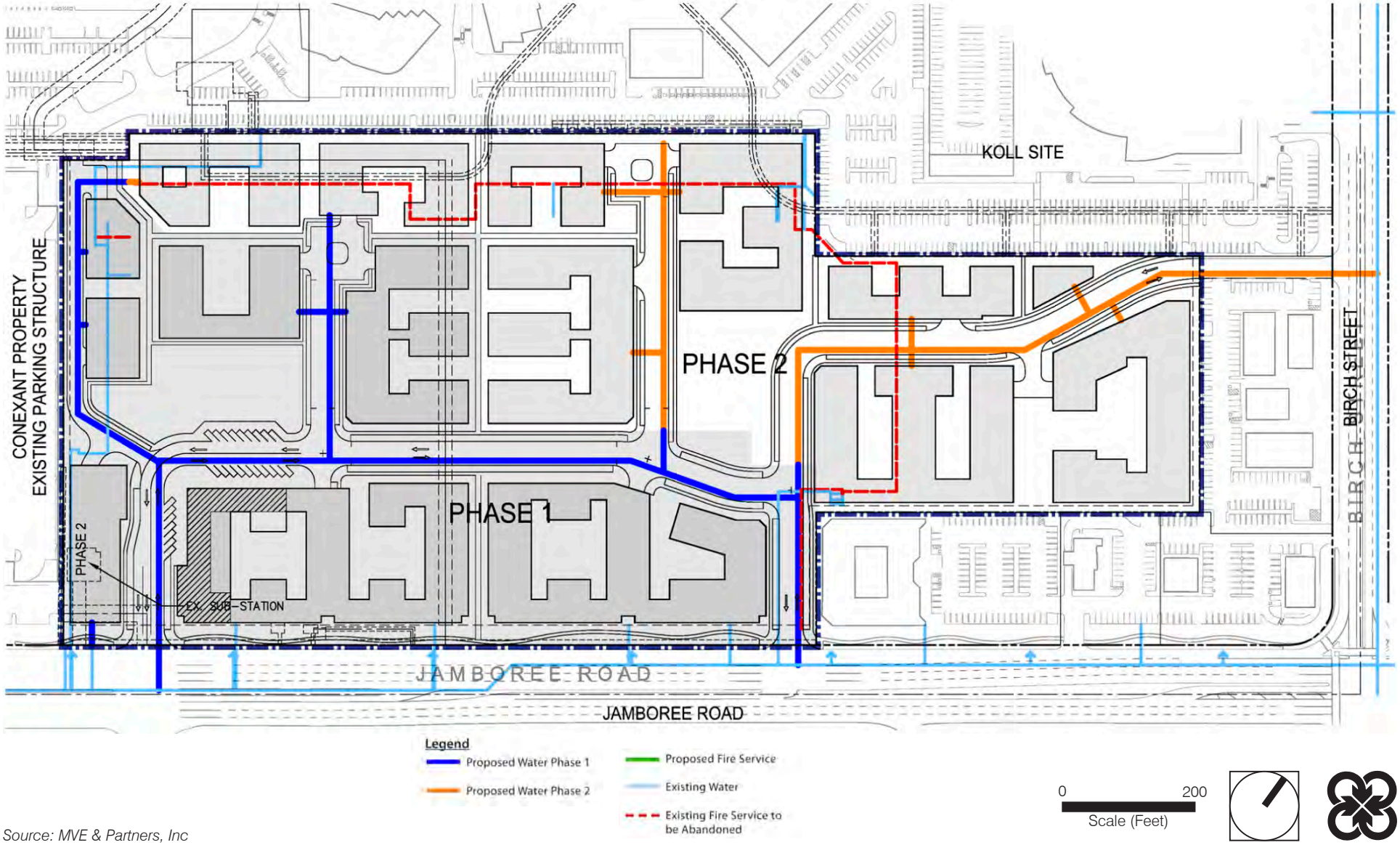
Proposed Water System: Phase 1 and Phase 2



Source: MVE & Partners, Inc

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The system installed in the first phase would be extended to the Phase 2 area, generally within the site roadways. It is anticipated that the Phase 2 onsite water system would include an additional connection to the IRWD line in Birch Street. This would include an approximately 200-foot extension offsite, anticipated to be aligned with the Birch Street easement to the property. The water system would be installed in accordance with IRWD standards so that upon completion of construction it may be turned over to IRWD for operation and maintenance.

Sewer System: Phase 1 and Phase 2

It is anticipated that Phase 1 sewer improvements would be located within the site roadway systems. These lines would tie into existing lines for the TowerJazz facility. The sewer concept upon development of Phase 2 is shown in Figure 3-12, *Proposed Sewer System: Phase 1 and Phase 2.* In Phase 2, the cessation of the TowerJazz manufacturing use would result in a major reduction in the volume discharged to the sewer system (even in comparison to buildout of Uptown Newport). Demolition of the TowerJazz facilities would include removal of the sewer line to which portion of the Phase 1 system connected. New underground sewer lines would be constructed to extend those lines to the offsite system within the Koll property. The northern portion of Phase 2 is anticipated to tie into an existing City of Newport Beach sewer in Birch Street.

3.4.3 Design Guidelines and Community Character

All new residential and commercial development within the subject property would be subject to the Uptown Newport Design Guidelines. The project is envisioned as a distinctive, interconnected residential/mixed-use village. A variety of residential building types and housing opportunities are anticipated. Residential buildings may include low-rise row-house and 4- and 5-story apartments or condominiums featuring a range of floor plans. Mid- to high-rise buildings are also possible. Street-level shops and restaurant are envisioned to provide gathering places and encourage pedestrian activity.

Figure 3-13, *Illustrative Site Plan and Vision,* shows a schematic of the overall site plan along with photographs and illustratives of project components from the Design Guidelines to portray the anticipated character for Uptown Newport.

The Design Guidelines include the following components:

- **Site Planning Guidelines and Standards.** Includes guidelines and standards for urban design framework, roadway circulation, fire/emergency access, land use distribution, pedestrian circulation, building setbacks, high-rise building location, variation in building height/tower elements, roof projections, balconies and private open space, bike lanes, etc.

- **Architectural Guidelines.** Includes guidelines for building orientation, vehicular access, massing principles, roofs, windows, color, wall materials, etc.

- **Signage Design Guidelines.** Includes a comprehensive sign program for the entire development, including guidelines for project entry monuments, retail signage, and building and wayfinding signage.

- **Site Development and Infrastructure.** Includes guidelines for grading and earthwork, sewer and water system development, storm drainage, water quality, and utilities.

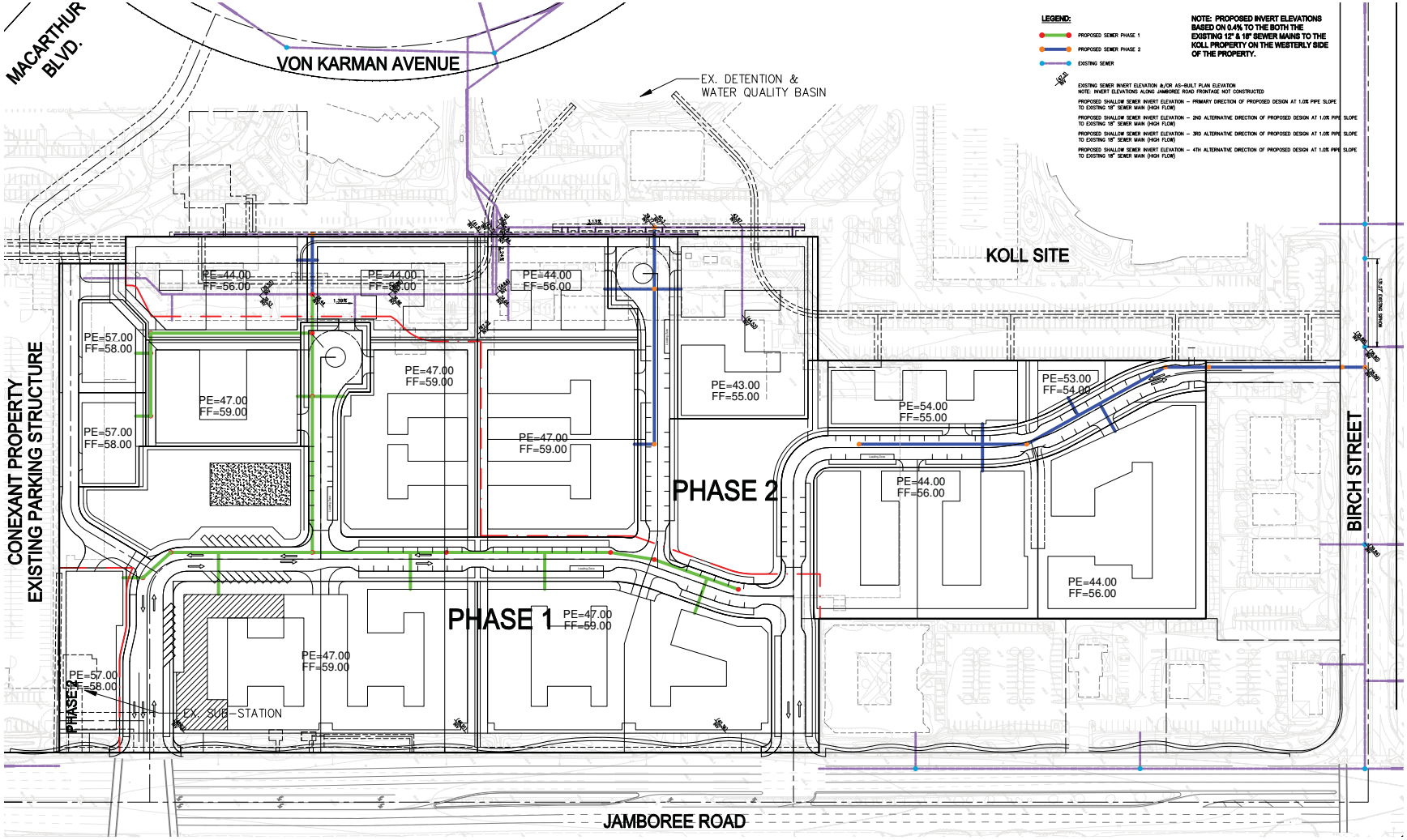
- **Landscape Design Guidelines.** Includes guidelines for landscape framework, common area landscape, community parks, hardscape plan (walls/fending, walks and trails, lighting plan, and site furnishing), and plant list.

3.5 INTENDED USES OF THE EIR

This DEIR is a project-level EIR, which examines the environmental impacts of the proposed residential project. This DEIR is also being prepared to address various actions by the City and others to adopt and implement the proposed residential project. It is the intent of this DEIR to enable the City of Newport Beach, other responsible agencies, and interested parties to evaluate the environmental impacts of the proposed project, thereby enabling them to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are as follows:

Lead Agency	Action
City of Newport Beach	• Planned Community Development Plan Amendment and Adoption • Development Agreement • Affordable Housing Implementation Plan • Phasing Plan • Design Guidelines • Certification of the Environmental Impact Report • Traffic Study Approval • Tentative Tract Map
Responsible Agencies	**Action**
Santa Ana Regional Water Quality Control Board	• Site Remediation (Remediation Action Plan) Approval • Water Quality Management Plan Approval
Airport Land Use Commission	• Airport Environs Land Use Plan consistency determination
California Department of Toxic Substance Control	• Site Remediation approval
Federal Aviation Administration	• Project Site Building Height Clearance

Proposed Sewer System: Phase 1 and Phase 2



0 250
Scale (Feet)

Source: Hall & Foreman Inc 2012

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Illustrative Site Plan and Vision

Note: For conceptual purposes only.
Source: Design Guidelines, MVE & Partners 2011

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Scale (Feet)

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4. Environmental Setting

4.1 INTRODUCTION

The purpose of this section is to provide, pursuant to provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a "description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and a regional perspective." The environmental setting will provide a set of baseline physical conditions that will serve as a tool from which the lead agency will determine the significance of environmental impacts resulting from the proposed project.

4.2 REGIONAL ENVIRONMENTAL SETTING

Regional Location

The 25.05-acre project site is located in the southwestern part of Orange County in the City of Newport Beach (see Figure 3-1, *Regional Location*). Regional access to the site is from State Route 73 (SR-73) via Jamboree Road to the south and Interstate 405 (I-405) via Jamboree Road to the north. Orange County is bordered by the Pacific Ocean to the west, Los Angeles County to the north and northwest, San Bernardino County to the northeast, Riverside County to the east, and San Diego County to the south. Orange County comprises approximately 798 square miles; it has approximately 40 miles of coastline and extends inland approximately 20 miles. The City comprises 13,062 acres in area and is located at the southwestern edge of Orange County, adjacent to the Pacific Ocean. Generally, Newport Beach is bordered by Costa Mesa to the northwest, Huntington Beach to the west, Irvine to the northeast, and Laguna Beach and unincorporated portions of Orange County to the southeast.

Regional Planning Considerations

Air Quality

The City of Newport Beach is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (SCAQMD). The SoCAB incorporates approximately 12,000 square miles within four counties: San Bernardino, Riverside, Los Angeles, and Orange. The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants for which ambient air quality standards (AAQS) have been adopted to protect health and welfare are known as criteria air pollutants and are: carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb). Volatile organic compounds (VOCs) and oxides of nitrogen (NO_X) are air pollutant precursors that go on to form O_3 through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants, depending on whether they meet AAQS for that pollutant. The SoCAB is designated nonattainment for O_3, $PM_{2.5}$, PM_{10},[1] and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO_2 under the California AAQS. The proposed project's consistency with the applicable AAQS is discussed in Section 5.2, *Air Quality*.

[1] CARB approved SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the national AAQS on March 25, 2010 because the SoCAB has not violated federal 24-hour PM_{10} standards during the period from 2004 to 2007. However, the EPA has not yet approved this request.

Greenhouse Gases

Assembly Bill 32 (AB 32), the Global Warming Solutions Act, was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of greenhouse gas emissions. AB 32 requires the state's global warming emissions to be reduced to 1990 levels by the year 2020. Projected GHG emissions in California are estimated at 596 million metric tons of CO_2-equivalent (CO_2e) pollutants. The California Air Resources Board (CARB) approved a 2020 emissions limit of 427 million metric tons (471 million tons) of CO_2e for the state. The 2020 target requires emissions reductions of 169 million metric tons, 28.5 percent of the projected emissions. Pursuant to the requirements of AB 32, the state's reduction in global warming emissions will be accomplished through an enforceable statewide cap on global warming emissions that will be phased starting in 2012. In order to effectively implement the cap, CARB adopted the Scoping Plan that identifies the greenhouse gas emissions reduction targets and reduction strategies for the various emission sectors within the state. The proposed project's consistency with CARB's Scoping Plan is discussed in Section 5.5, *Greenhouse Gas Emissions*.

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. SCAG cooperates with SCAQMD, the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents to achieve specific regional objectives. The plans most applicable to the proposed project include the 2012-235 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future and the Compass Growth Vision, which are described in detail in Section 5.9, *Land Use and Planning*.

The proposed project is considered a project of regionwide significance pursuant to the criteria outlined in SCAG's Intergovernmental Review Procedures Handbook (November 1995) and Section 15206 of the California Environmental Quality Act (CEQA) Guidelines, as it encompasses more than 500 residential units. Therefore, Section 5.9, *Land Use and Planning*, addresses the project's consistency with the applicable regional planning guidelines and policies.

Airport Environs Land Use Plan for John Wayne Airport

In 1975, the Airport Land Use Commission (ALUC) of Orange County adopted an Airport Environs Land Use Plan (AELUP, amended April 17, 2008) that included John Wayne Airport (JWA); Fullerton Municipal Airport; and the Joint Forces Training Base, Los Alamitos. The AELUP is a land use compatibility pan that is intended to protect the public from adverse effects of aircraft noise, to ensure the people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable space. The AELUP identifies standards for development in the airport's planning area based on noise contours, accident potential zones, and building heights. ALUC is authorized under state law to assist local agencies in ensuring compatible land uses in the vicinity of airports. Primary areas of concern for ALUC are noise, safety hazards, and airport operational integrity. ALUC is not implementing agency in the manner of local governments, nor do they issue permits for a project such as those required by local governments. However, pursuant to California Public Utilities Code Section 21676, local governments are required to submit all general plan amendments and zone changes that occur in the ALUC planning areas for consistency review by ALUC. If such an amendment or change is deemed inconsistent

with the ALUC plan, a local government may override the ALUC decision by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes stated in Section 21670(a)(2) of the Public Utilities Code: "to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards in areas around public airports to the extent that these areas are not already devoted to incompatible uses."

The proposed project's consistency with the AELUP is discussed in Sections 5.7, *Hazards and Hazardous Materials*, 5.9, *Land Use and Planning*, and 5.9, *Noise*.

4.3 LOCAL ENVIRONMENTAL SETTING

Location

The project site is in the Airport Area of the City of Newport Beach and is approximately 0.6 mile southeast of John Wayne Airport and occupies Assessor's Parcel Nos. 445-131-02 and 445-131-03. The site encompasses a portion of the Koll Center Newport office park and is located on the east side of Jamboree Road, between Birch Street and the intersection of Von Karman Avenue and MacArthur Boulevard. Vehicular access to the site is from Jamboree Road, Birch Street, and Von Karman Avenue. MacArthur Boulevard and Von Karman Avenue pass west of the site and Birch Street passes to the north (see Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*).

Onsite Land Uses

Existing project site uses and conditions are depicted in Figures 3-3, *Aerial Photograph*, and 4-1, *Site Photographs*. The project site is currently developed with two industrial buildings, which are being leased to multiple tenants, including TowerJazz. The Half Dome building in the southwestern part of the project site is one story and 126,675 square feet. It is used for office, light industrial, storage, and café services. The TowerJazz building located in the northern part of the project site is two and three stories and 311,452 square feet. A Southern California Edison (SCE) substation exists along the southwestern boundary of the site. The balance of the project site is developed with landscaped areas, surface parking lots, and other hardscape improvements. The parking lots are located in the eastern and northern parts of the site. An existing Southern California Edison substation is also located at the southern end of the project site.

Surrounding Land Uses

Surrounding land uses are depicted in Figures 3-3, *Aerial Photograph*, and 4-2, *Photographs of Surrounding Uses – Photographs*. The project site is surrounded to the north, west, and south by commercial/office uses within the Koll Center Newport office park. To the north are clusters of office buildings ranging from 1 to 15 stories in height, and three restaurants, including fast food. To the west are office buildings ranging from 1 to 4 stories high, landscaped areas, and two man-made lakes. To the south are two 20-story office buildings, surface parking, and a fast-food restaurant. Jamboree Road forms the eastern boundary of the project site, and beyond Jamboree Road is undeveloped open space within the North Campus planning area of the University of California, Irvine. As shown in Figure 3-3, the UCI Child Care Development Center and the San Joaquin Freshwater Marsh Reserve (approximately 875 feet southeast of Jamboree Road) are also located east of the project site across Jamboree Road. Further northeast of the project site at the Jamboree Road/Campus Drive intersection are the 3000 The Plaza residential towers. Further to the southwest (approximately 0.8 mile) is the Upper Newport Bay.

Environmental Resources and Infrastructure

Biological Resources

The project site is currently developed with two industrial buildings, with the balance of the site consisting of landscaped areas, surface parking lots, and other hardscape improvements (see Figures 3-3, *Aerial Photograph*, and 4-1, *Site Photographs*). No native vegetation communities occur within or immediately adjacent to the project site. The existing landscaping throughout the project site consists of nonnative ornamental vegetation, which provides very limited habitat for wildlife. While a few species of birds may utilize the ornamental plantings for roosting and/or nesting, the majority of the project area does not provide suitable foraging, nesting/breeding, movement, or refuge for common or sensitive wildlife species. However, the site contains several large ornamental trees and shrub vegetation that have potential to support nesting migratory birds. No drainages traverse the project site and no potential jurisdictional waters or wetlands areas are present on or immediately adjacent to the site. Refer to Section 5.3, *Biological Resources*, for additional information concerning biological resources and an analysis of project impacts on such resources.

Climate and Air Quality

The project site is approximately 4.9 miles inland from the Orange County coast, within the western portion of the SoCAB. The climate in the SoCAB is mild, tempered by cool ocean breezes. Temperatures are normally mild (62° to 72°F), with rare extremes above 100°F or below freezing (32°F). Precipitation is typically 9 to 15 inches annually in the SoCAB. The climate of Orange County is typified by warm temperatures and light winds. The average monthly high temperatures range from about 52°F in the coastal areas in January to 72°F in the inland areas of the coastal plain in August. In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rains fall between November and April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Annual average humidity is 70 percent along the coast and 57 percent in the eastern portions of the SoCAB.

The SoCAB is designated nonattainment for O_3, $PM_{2.5}$, PM10, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO_2 under the California AAQS. An air quality analysis was performed for the project and the results are discussed in Section 5.2, *Air Quality*. Additionally, project-related impacts from GHG emissions are discussed in Section 5.5, *Greenhouse Gas Emissions*.

Geology and Landform

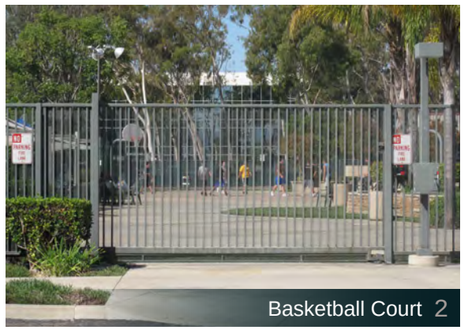
The project site is at the southeastern edge of the Los Angeles Basin, near the northeastern edge of the Newport Mesa, which is a flat-topped platform at an elevation of about 50 feet above mean sea level (amsl) and deeply dissected by stream erosion.

The geologic units present within the project site can be characterized as generally stiff to very stiff silty to sandy clay fill soils overlying native sands, silts, clays, and gravels of marine terrace deposits to the depths explored. More specifically, the geologic units found under the site include artificial fill, compacted artificial fill, terrace deposits, and bedrock units.

Site Photographs

Mechanical Equipment 1

Front Drop-off Area 4


Basketball Court 2

Main Building 5

Key Map

Secondary Entrance 3

Loading Docks 6

Parking Lot 7

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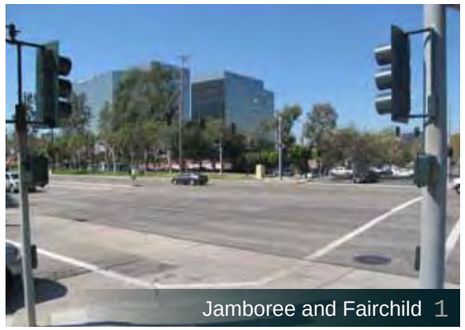
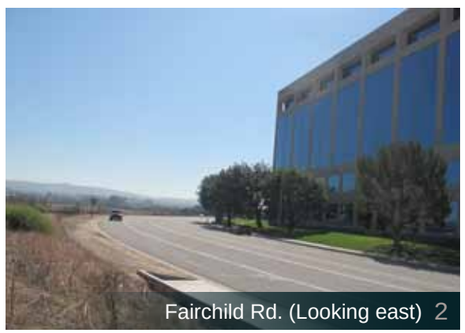
Photographs of Surrounding Uses

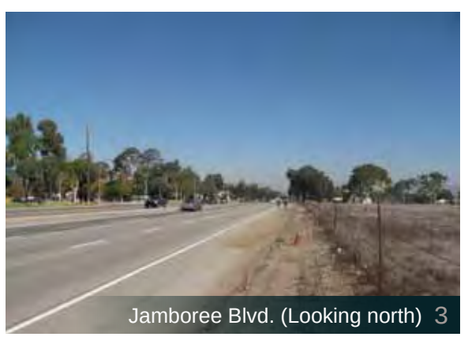

Jamboree and Fairchild 1

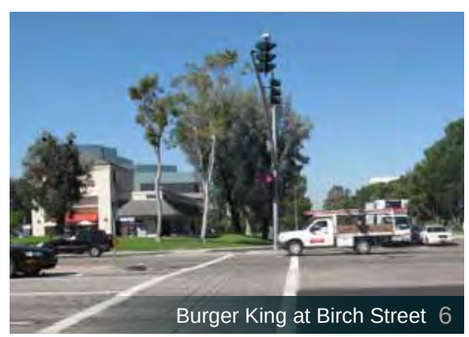
Child Development Center 4

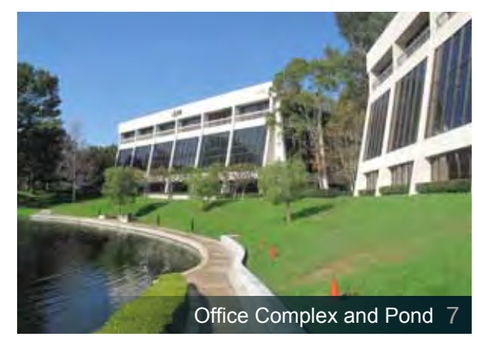

Fairchild Rd. (Looking east) 2

Midrise Office Complex 5

Key Map


Jamboree Blvd. (Looking north) 3


Burger King at Birch Street 6


Office Complex and Pond 7

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The Peninsular Ranges are traversed by dominant northwest-trending faults, including the San Andreas Fault approximately 47 miles northeast of the project site; San Jacinto Fault approximately 44 miles northeast of the site; Whittier-Elsinore Fault approximately17 miles northeast of the site; and Newport-Inglewood Fault approximately 4.5 miles southwest of the site. All four of these faults are classified active. They have had surface displacement within the last 11,000 years, and earthquakes have been recorded along all four faults in historic time. In addition to these active faults, blind thrust faults are also thought to be present under the Los Angeles Basin. The Pelican Hills Fault also passes approximately two miles southwest of the site, and is classified potentially active. Furthermore, a fault extending northwest-southeast across the UCI campus was identified in 1991 and is classified potentially active. That fault passes near University Drive approximately 0.9 mile southeast of the project site (PBS&J 2007). There are no known faults on or immediately adjacent to the project site.

Overall site topography can be characterized as relatively flat. Elevations onsite range from 41 feet above mean sea level (amsl) along the northern boundary to 54 feet amsl along the southern boundary (Google Earth 2012).

Refer to Section 5.5, *Geology and Soils*, for additional information concerning geological and soil conditions and an analysis of project impacts on geology and soils.

Hydrology and Water Quality

The project site is in the Newport Bay Watershed, which spans 152 square miles in central and southern Orange County. The Newport Bay Watershed is defined by the foothills of the Santa Ana Mountains to the east (Loma Ridge) and the San Joaquin Hills to the west and southwest. Nine cities are partly or fully within the watershed: Costa Mesa, Irvine, Lake Forest, Laguna Hills, Laguna Woods, Newport Beach, Orange, Santa Ana, and Tustin. The watershed also includes several unincorporated areas of Orange County. Water quality in the Newport Bay Watershed is currently listed by the State of California as impaired by various pollutants, including pesticides.

Existing site drainage is via a series of underground storm drain lines; the direction of flow onsite is generally from southeast to northwest. Drainage released from the project site is conveyed through a reinforced concrete pipe along MacArthur Boulevard that eventually discharges into San Diego Creek; San Diego Creek flows into Upper Newport Bay, which is contiguous with the Pacific Ocean.

Refer to Section 5.8, *Hydrology and Water Quality*, for additional information regarding hydrological conditions and an analysis of project impacts on hydrology and water quality.

Noise

Community noise levels are measured in terms of the “A-weighted decibel” (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels to the frequency response of the human ear. The noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL scale represents a time-weighted, 24-hour average noise level based on the A-weighted decibel. Noise levels in the project area are influenced primarily by motor vehicle traffic on Jamboree Road and MacArthur Boulevard, which is a steady source of ambient noise. Noise from the existing mechanical equipment (ground level and rooftop) of the TowerJazz building also adds to the noise levels in the project area. Takeoffs and landings at John Wayne Airport contribute to the intermittent aircraft noise in the project area.

Refer to Section 5.10, *Noise*, for additional information concerning the noise environment and an analysis of project-related noise impacts.

Public Services and Utilities

The project site is located in a highly urbanized area of the City with existing public services and utilities available to the site. Local utilities and service systems that serve the existing industrial uses are available to serve the proposed project.

Fire protection services are provided by the City of Newport Beach Fire Department via eight fire stations. Station No. 7 at 20401 Acacia Street is the closest station to the project site, approximately 1.2 miles southwest of the site. Law enforcement services are provided by the City of Newport Beach Police Department located at 870 Santa Barbara Drive. The project site is served by the Santa Ana Unified School District. Schools within this district that may serve the proposed project are James Monroe Elementary, McFadden Intermediate, and Century High School. Library services are provided by the Newport Beach Public Library.

Domestic and reclaimed water service for the project site is provided by the Irvine Ranch Water District. Wastewater service to the project site is provided by the City of Newport Beach Municipal Operations Department and treated by the Orange County Sanitation District. The City of Newport Beach is under contract with Waste Management of Orange County for solid waste hauling and disposal. Electricity and natural gas services are provided by Southern California Edison and Southern California Gas Company, respectively.

Refer to Sections 5.12, *Public Services*, and 5.15, *Utilities and Service Systems*, for additional information regarding public services and utilities and service systems, respectively, and an analysis of project impacts on services and utilities.

Transportation and Traffic

The existing local roadway network in the project area includes Jamboree Road, Fairchild Road, MacArthur Boulevard, and Birch Street. Jamboree Road and MacArthur Boulevard are designated Major Arterials (six-lane divided roadway) in the City's General Plan Circulation Element. Access to the project site is provided via two access drives off of Jamboree Road and a private access drive off of Birch Street.

The regional transportation system in the vicinity of the project site includes SR-73 to the south and I-405 to the north. The project site is located adjacent to and in close proximity of existing Orange County Transit Authority bus routes provided along Jamboree Road and MacArthur Boulevard. Additionally, the John Wayne Airport is located approximately 0.6 mile northwest of the project site.

Refer to Section 5.14, *Transportation and Traffic*, for additional information concerning existing transportation facilities and traffic conditions and an analysis of project-related impacts.

Local Planning Considerations

Airport Business Area Integrated Conceptual Development Plan

The Airport Business Area Integrated Conceptual Development Plan (ICDP), which was adopted by the Newport Beach City Council on September 28, 2010, is intended to implement Newport Beach General Plan land use policy LU 6.15.11 (Conceptual Development Plan Area). This policy requires a single conceptual

development plan for any residential development in that portion of the Airport Area that is generally bounded by MacArthur Boulevard, Jamboree Road, and Birch Street before residential can be developed in this area (see Figure 3-3 for ICDP and Airport Area boundaries). The ICDP is a prerequisite for the preparation of the regulatory plans called for in the City's General Plan and it provides a framework for residential development on both the Koll and Uptown Newport (formerly Conexant) properties. The regulatory plans are required to describe more fully the proposed residential density, design of buildings, parking, streets, pedestrian ways, parks and open spaces, and how infrastructure required to support the proposed development will be provided. The project site is part of the ICDP and therefore requires the preparation and adoption of a regulatory plan.

The proposed project's consistency with the ICDP is discussed in Section 5.9, *Land Use and Planning*.

University of California, Irvine, 2007 Long Range Development Plan

The University of California, Irvine (UCI), 2007 Long Range Development Plan (2007 LRDP) is a comprehensive policy and land use plan that guides the growth of the campus. It identifies the physical development needed to achieve the academic needs and goals of the campus while demonstrating responsible conservation of limited resources. The 2007 LRDP provides a framework of policies and guidelines to shape land use and physical development at UCI through a horizon year of 2025–26. The plan is designed to support key academic and student life goals, identifies development objectives, delineates campus land uses, and estimates the new building space needed to support projected program expansion through the planning horizon year (UCI 2007). The 2007 LRDP is neither an enrollment plan nor an implementation plan; rather, it provides a framework of policies and guidelines to influence future decisions on land use, enrollment, housing, parking, academic facilities, and urban and landscape design.

Jamboree Road forms the eastern boundary of the project site, and beyond Jamboree Road is undeveloped open space within the North Campus planning area of UCI, which is covered under the 2007 LRDP and is currently occupied by a few academic and support facilities, an arboretum, and a child development center. Per Figure 5-2 of the LRDP, Land Use Plan for 2007 LRDP, (reproduced as Figure 5.1-1, *UCI Land Use Plan for 2007 Long Range Development Plan*, in this DEIR) the North Campus area is designated Mixed Use-Commercial. The approved development program for North Campus under the 2007 LRDP includes 950,000 square feet of office and/or research and development space and 435 multifamily dwelling units.

The proposed project's consistency with the LRDP is discussed in Section 5.9, *Land Use and Planning*.

General Plan and Zoning

The project site has a General Plan land use designation of Mixed-Use Horizontal-2 (MU-H2), which provides for a horizontal intermixing of uses that may include regional commercial office, multifamily residential, vertical mixed-use buildings, industrial, hotel rooms, and ancillary neighborhood commercial uses. The MU-H2 designation applies to properties in the Airport Area, which includes the project site.

The existing zoning designation of the project site is Industrial Site 1 of the Koll Center Newport Planned Community (PC-15). Permitted uses in the PC-15 zoning designation include commercial and light industrial and support office and commercial-related uses.

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the

likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Section 15355 of the Guidelines defines cumulative impacts to be "...two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The CEQA Guidelines (Section 15130 [b][1]) state that the information utilized in an analysis of cumulative impacts should come from one of two sources:

A. A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency.

B. A summary of projections contained in an adopted General Plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analyses contained in Chapter 5, *Environmental Analysis*, of this DEIR uses a combination of both Method A and Method B. The approach is discussed in each respective topical section. Following is a discussion of related projects as used to analyze cumulative impacts under Method A.

The City of Newport Beach compiled a list of approved and reasonably foreseeable projects in the project study area. Table 4-1 provides a list of approved projects included for analysis pursuant to the City's traffic phasing ordinance (TPO). The locations of these projects are shown in Figure 4-3, *Approved Traffic Phasing Ordinance Projects.* As noted in Table 4-1, some of these projects have already been built. They have been included in this table for purposes of the traffic analysis. Available City traffic counts for some intersections were conducted in 2004 and 2005, prior to completion of these projects. Trip generation for these projects, therefore, was added to baseline traffic information. Other reasonably foreseeable, cumulative projects identified by the City are listed in Table 4-2, and mapped on Figure 4-4, *Cumulative Projects Location Map.*

Table 4-1
Approved Projects per Newport Beach Traffic Phasing Ordinance

Project Name and Location	City Project Number	Land Use(s)/Status
Fashion Island Expansion Fashion Island Area	148	Approximately 192,846 SF of remaining entitlement; 40 percent complete
Temple Bat Yahm Expansion 1011 Camelback Street	154	Temple building; 65 percent complete
CIOSA-Irvine Project West of Jamboree Road, North of Pacific Coast Highway	555	Entitlements constructed with exception of Hyatt Regency expansion; 91 percent complete
Newport Dunes West of Jamboree Road, North of Pacific Coast Highway	910	275 rooms remaining; not yet built
Hoag Hospital Phase III 1 Hoag Drive	945	130,000 SF of outpatient facilities for Hoag lower campus; not yet built
St. Mark Presbyterian 2200 San Joaquin Hills Road	949	28,667 SF church plus 5,206 SF preschool; 77 percent complete
OLQA Church Expansion 2046 Mar Vista Drive	954	55,530 SF church plus 600-student elementary school; under construction
2300 Newport Boulevard	955	27 condominiums plus 36,000 SF retail/office space; not yet built
Newport Executive Court 20372 Birch Street	957	Four-story,65,205 SF mixed-office building; not yet built
Hoag Health Center 510 Superior Avenue	958	350,000 SF medical office; 75 percent complete
North Newport Center Planned Community Fashion Island Area	959	430 DUs, 205,161 SF office, and 75,000 SF retail; not yet built
Santa Barbara Condominiums Santa Barbara Drive, west of Fashion Island	960	79 condominiums; not yet built
Newport Beach City Hall 1100 Avocado Avenue	961	98,000 SF City Hall, 17,000 SF library expansion, 14.3 acre park, and 0.5 acre dog park; under construction
Newport Medical Office 328, 332, & 340 Old Newport Boulevard	962	Demolition of three existing buildings and construction of a 25,725 SF medical office building; not yet built
Coastline Community College 505–1533 Monrovia Avenue	963	Three-story, 66,610 SF learning center; under construction
Bayview Medical Office 3501 Jamboree Road	964	Conversion of 38,759 SF of office/retail to medical office; not yet built
Mariners's Point 200–300 W. Coast Highway	965	Commercial/retail complex that includes a two-story building totaling 23,015 SF and a three-story onsite parking garage; under construction
4221 Dolphin Striker Way	963	Demolition of existing 7,996 SF restaurant and construction of 12,351 SF commercial retail; not yet build

Source: City of Newport Beach, Traffic Phasing Ordinance (Includes approved projects less than 100 percent complete).
Notes: DUs = dwelling units; SF = square feet

Table 4-2
Cumulative Projects

No.	Project Name Project Location	Proposed Land Use(s)
City of Newport Beach		
1	Newport Beach County Club 1600 & 1602 E. Coast Highway[1]	• 5 Residential DUs • 27 Hotel Rooms • 2,048 SF Concierge and Guest Center • 3,725 SF Tennis Club • 7,490 SF SPA • 54,819 SF Golf Club • 7 Tennis Courts and a Swimming Pool
2	Mariner's Medical Arts 1901 W. Westcliff Drive	• 12,245 SF Medical Office Addition
3	Banning Ranch 4520 W. Coast Highway	• 1,375 Residential DUs • 75,000 SF Commercial Retail • 75-Room Hotel Accommodations • 28 Acres of Parks and Open Space
4	Sunset Ridge Park 4850 W. Coast Highway	• 13.67 Acre Active Park • 2 Fields Soccer Complex
5	Marina Park 1700 Balboa Boulevard	• 10.45 Acre Public Marina, Beach, and Park 26,990 SF Balboa Center Complex • 23 Slips Visiting Vessel Marina • 1,328 SF Marina Services Building • 5,500 SF Girl Scout House • 153 Parking Spaces
6	Koll Center 4343 Von Karman Avenue	• 260 Residential DUs • 3,400 SF Commercial
7	AERIE 201 Carnation Avenue[1]	• 6-Unit Condominium with • Subterranean Parking
8	Newport Coast Planned Community Newport Coast Drive	• 3,180 Single-family DUs • 1,298 Condominiums/Townhomes • 582 Multifamily DUs
City of Irvine		
9	Element Hotel 17662 Armstrong Avenue	• 122 Room Extended Stay Hotel
10	Diamond Jamboree Southwest corner of Millikan Avenue/Alton Parkway	• 25,362 SF Office
11	Irvine Crossing 17386 Gillette Avenue and 17871 Von Karman Avenue	• 178,500 SF Office
12	Central Park Northwest corner of Jamboree Road/Michelson Drive	• 1,380 DUs • 90,000 SF Office • 19,700 SF Retail
13	Metlife 2567 Main Street	• 481 DUs
14	Essex 2552 Kelvin Avenue	• 132 DUs
15	The Lofts 2300 Dupont Drive	• 116 DUs
16	Avalon I 2701 Alton Parkway	• 280 DUs

Table 4-2
Cumulative Projects

No.	Project Name Project Location	Proposed Land Use(s)
17	2801 Alton Parkway	• 178 DUs
18	Plaza III and IV 3000 Scholarship	• 105 DUs
19	Carlyle 2201 Martin Court	• 156 DUs
20	Granite Court 17421 Murphy Avenue	• 71 DUs
21	2801 Kelvin Avenue	• 248 DUs
22	17352 Von Karman Avenue	• 32,066 SF Office • 67,698 SF Warehouse
23	Metropolis 2500 Main Street and Cartwright Road	• 457 DUs
24	Aloft Extended Stay Hotel 2320 Main Street	• 170 Rooms
25	HINES 18582 Teller Avenue and 2722 Michelson Drive	• 785,000 SF Office • 15,500 SF Retail
26	Park Place Northwest corner of Jamboree Road/Michelson Drive	• 3,697,770 SF Office • 350,000 SF Retail • 2,008 DUs • 308 Hotel Rooms
27	2851 Alton Parkway	• 171 DUs
28	Martin Street Residential 18301 Von Karman Avenue and 2301 Martin Court	• 82 DUs

Source: City of Newport Beach, City of Irvine.
Notes: DUs = dwelling units; SF = square feet
[1] Project does not have a net increase in traffic.

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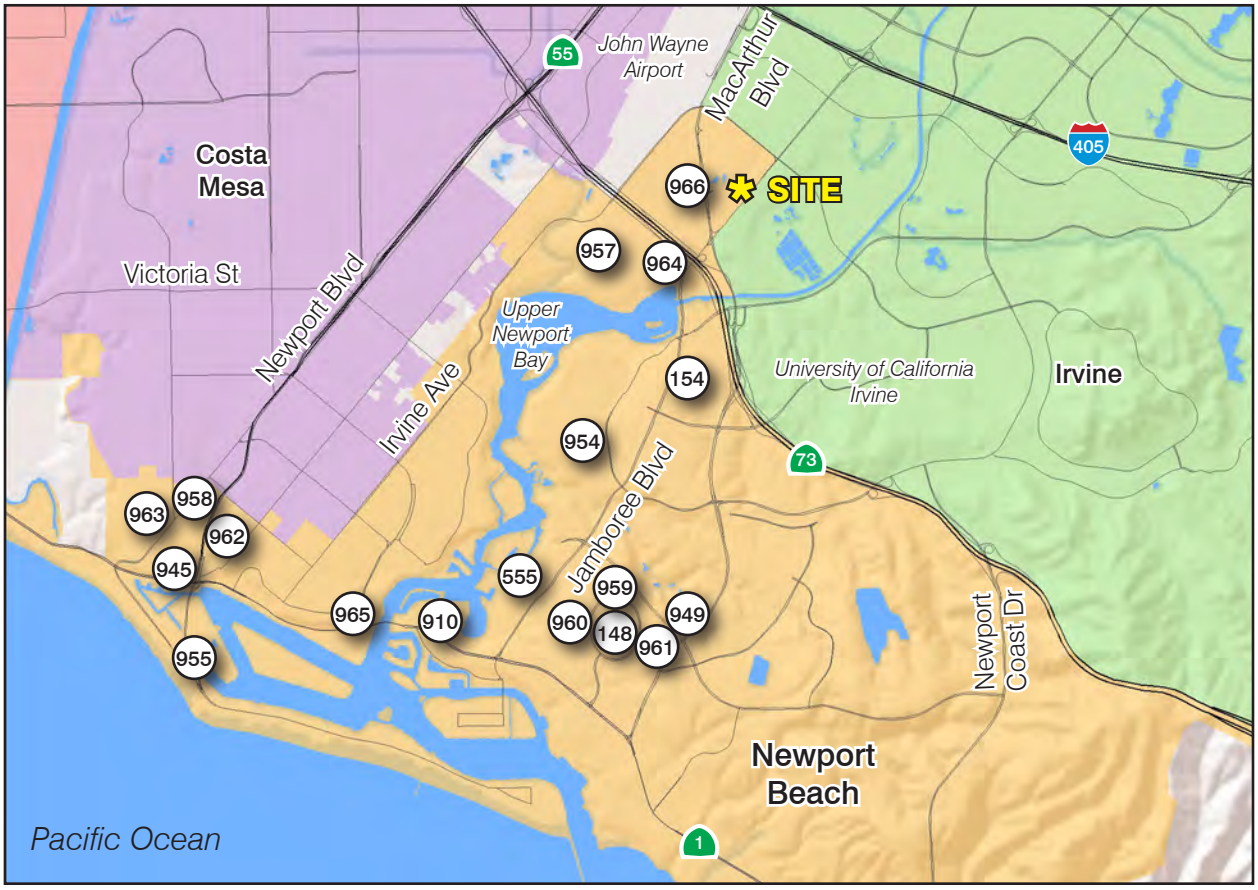
Approved Traffic Phasing Ordinance Projects



148 Fashion Island Expansion
Fashion Island Area

154 Temple Bat Yahm Expansion
1011 Camelback Street

555 CIOSA-Irvine Project
West of Jamboree Road, North of PCH

910 Newport Dunes
West of Jamboree Road, North of PCH

945 Hoag Hospital Phase III
1 Hoag Drive

949 St. Mark Presbyterian
2200 San Joaquin Hills Road

954 OLQA Church Expansion
2046 Mar Vista Drive

955 2300 Newport Blvd

957 Newport Executive Court
20372 Birch Street

958 Hoag Health Center
510 Superior Avenue

959 North Newport Center Planned Community
Fashion Island Area

960 Santa Barbara Condominiums
Santa Barbara Drive, west of Fashion Island

961 Newport Beach City Hall
1100 Avocado Avenue

962 Newport Medical Office
328, 332, & 340 Old Newport Boulevard

963 Coastline Community College
505-1533 Monrovia Avenue

964 Bayview Medical Office
3501 Jamboree Road

965 Mariners's Point
200-300 W. Coast Highway

966 4221 Dolphin Striker Way

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Scale (Miles)

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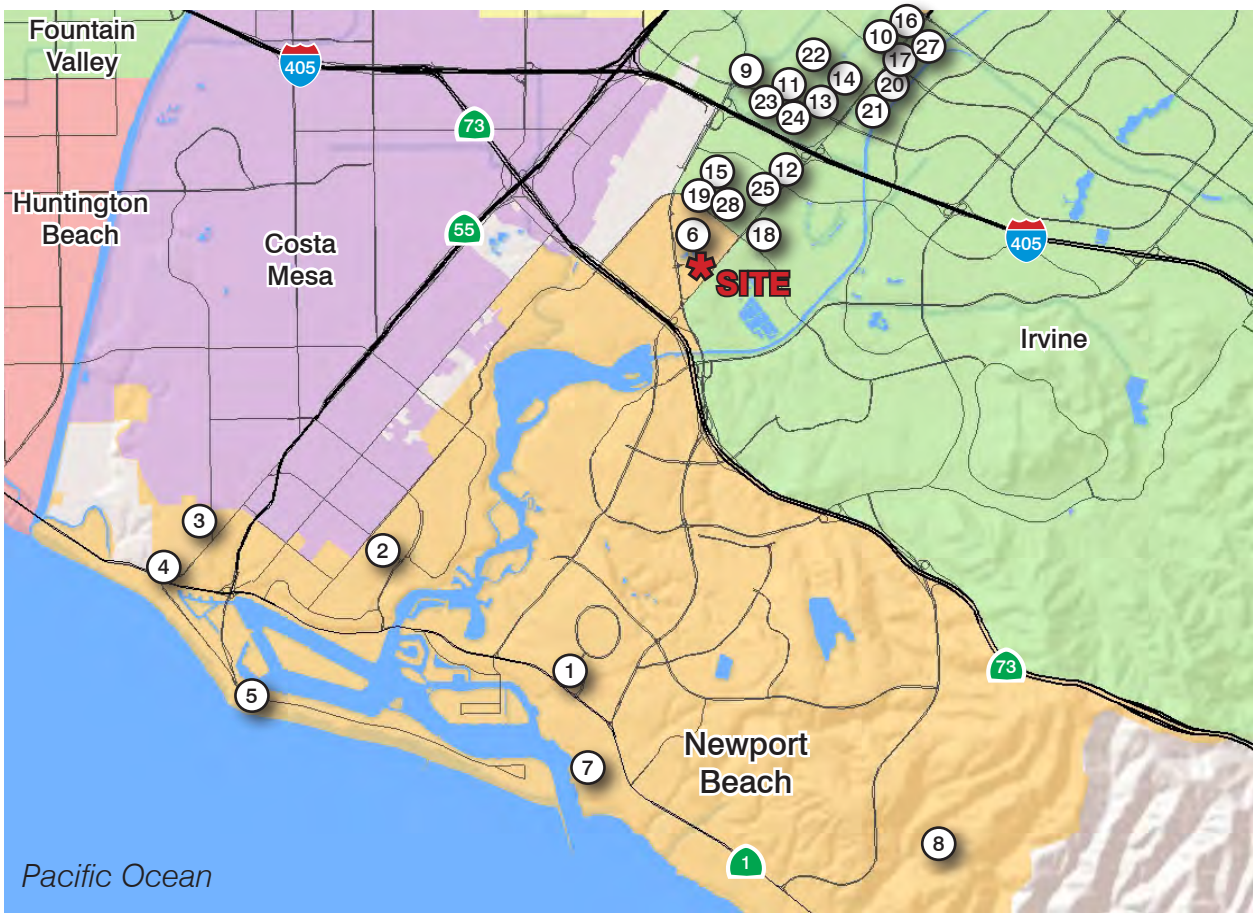
Cumulative Projects Location Map



1. Newport Beach Country Club
1600 E. Coast Highway
2. Mariner's Medical Arts
1901 W. Westcliff Drive
3. Banning Ranch
4520 W. Coast Highway
4. Sunset Ridge Park
4850 W. Coast Highway
5. Marina Park
1700 Balboa Boulevard
6. Koll Center
4343 Von Karman Avenue
7. AERIE
201 Carnation Avenue
8. Newport Coast Planned Community
Newport Coast Drive
9. Element Hotel
17662 Armstrong
10. Diamond Jamboree
Southwest Corner of Millikan/Alton
11. Irving Crossing
17836 Gillette and 17871 Von Karman
12. Central Park
NW Corner of Jamboree Road/
Michelson Drive
13. Metlife
2567 Main Street
14. Essex
2552 Kelvin Avenue
15. The Lofts
2300 Dupont Drive
16. Avalon I
2701 Alton Parkway
17. 2801 Alton Parkway
18. Plaza III & IV
3000 Scholarship
19. Carlyle
2201 Martin Court
20. Granite Court
17421 Murphy Avenue
21. 2801 Kelvin Avenue
22. 17352 Von Karman
23. Metropolis
2500 Main and 17872 Cartwright
24. Aloft Extended Stay Hotel
2320 Main Street
25. HINES
18582 Teller and 2722 Michelson
26. Park Place
NE Corner of Jamboree Road/
Michelson Drive
27. 2851 Alton
28. Martin Street Residential
18831 Von Karman
and 2301 Martin

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5. Environmental Analysis

5.1 AESTHETICS

This section of the Draft Environmental Impact Report (DEIR) describes the existing landform and aesthetic character of the project site and surrounding area and describes views of the project site from surrounding vantage points. The potential aesthetic and visual impacts resulting from implementation of the Uptown Newport project are addressed in this section. The information presented in this section is based on field reconnaissance, review of the project site and aerial photographs, and shade/shadow simulations prepared for the proposed project.

5.1.1 Environmental Setting

Methodology Approach

Aesthetic/Visual Character Analysis

The assessment of aesthetic impacts is subjective by nature. Aesthetics generally refer to the identification of visual resources and the quality of what can be seen, as well as an overall visual perception of the environment. This analysis attempts to identify and objectively examine factors that contribute to the perception of aesthetic impacts. Potential aesthetic impacts can be evaluated by considering proposed grade separations, landform alteration, building setbacks, scale, massing, typical construction materials, and landscaping features associated with the design of the proposed project. It should be noted, however, that there are no locally designated or defined standards or methodologies for the assessment of aesthetic impacts. The aesthetic compatibility of the proposed project with the surrounding area and potential impacts to visual resources and viewers in the project area are examined in this section. In the project area, viewers of the project site consist of commercial/office uses to the north, south, and west of the project site (see Figure 3-3, *Aerial Photograph*). Intermittent views by passing motorists along Jamboree Road are also considered. Potential land use effects of the proposed project on surrounding land uses are considered in the discussion of land use compatibility in Section 5.9, *Land Use and Planning*.

Light and Glare Analysis

Nighttime illumination and glare analysis addresses the effects of a project's exterior lighting upon adjoining uses and areas. Light and glare impacts are determined through a comparison of the existing light sources with the proposed lighting plan or policies. If the project has the potential to generate spill light on adjacent sensitive receptors or generate glare to receptors in the vicinity of the site, mitigation measures can be provided to reduce potential impacts, as necessary.

Shade/Shadow Analysis

The issue of shade and shadow pertains to whether onsite buildings or structures block direct sunlight from adjacent properties. Shading is an important environmental issue because the users or occupants of certain land uses have expectations for direct sunlight and warmth from the sun for function, physical comfort, or conduct of commerce. Factors that influence the extent or range of shading include: season; time of day; weather (i.e., sunny vs. cloudy day); building height, bulk, and scale; topography; spacing between buildings; sensitivity of adjacent land uses; and tree cover. The longest shadows are cast during the winter

months, when the sun is lowest on the horizon, and the shortest shadows are cast during the summer months. Shadows are longer in the early morning and late afternoon. Consequences of shadows upon land uses may be positive, including cooling effects during warm weather, or negative, such as the loss of natural light necessary for solar energy purposes or the loss of warming influences during cool weather. The relative effects of shading from structures are site specific.

Visual Setting

Character and Land Use

Existing project site uses and conditions are depicted in Figures 3-3, *Aerial Photograph*, and 4-1, *Site Photographs*. As shown in Figure 3-3, the project site is currently developed with two industrial buildings (Half Dome and TowerJazz buildings). The western boundary consists of a large outdoor mechanical equipment area. The balance of the project site is developed with landscaped areas, surface parking lots, a variety of fencing and walls, and other hardscape improvements; the parking lots are in the eastern and northern part of the site. An existing Southern California Edison substation is also located at the southern end of the project site.

Surrounding land uses are depicted in Figures 3-3, *Aerial Photograph*, and 4-2, *Photographs of Surrounding Uses Photographs*. As shown in these figures, the project site is surrounded to the north, west, and south by commercial/office uses within the Koll Center Newport office park. To the north are clusters of office buildings ranging from 1 to 15 stories in height, and three restaurants. To the west are office buildings ranging from 1 to 4 stories high, landscaped areas, and two man-made lakes. To the south are two 20-story office buildings, surface parking, and a fast-food restaurant. Jamboree Road forms the eastern boundary of the project site, and beyond Jamboree Road is undeveloped open space within the North Campus planning area of the University of California, Irvine (UCI). As shown in Figure 3-3, the UCI Child Care Development Center and the San Joaquin Freshwater Marsh Reserve (approximately 150 feet east of Jamboree Road) are also located east of the project site across Jamboree Road. Further northeast of the project site at the Jamboree Road/Campus Drive intersection are the 3000 The Plaza residential towers. Further to the southwest (approximately 0.8 mile) is the Upper Newport Bay.

Landform and Topography

Overall site topography can be characterized as relatively flat. Elevations onsite range from 41 feet above mean sea level (amsl) along the northern boundary to 54 feet amsl along the southern boundary (Google Earth 2012).

Light and Glare

As described above, the project site is developed with two industrial buildings parking lots, an electrical substation, and other site improvements. Sources of light or glare exist within the confines of the project site, including building (exterior and interior), security, and parking-area lighting. Other sources of light and glare in the project area include street lights along Jamboree Road, Macarthur Boulevard, and Birch Street and from commercial/office uses to the north, south, and west of the project site. Another source of nighttime light in the project area is vehicular traffic along surrounding roadways.

Shade/Shadow

Shadows cast by the existing buildings and structures predominantly fall within the project site, with some shading occurring on the adjacent office parking areas to the west at certain times of the day.

Regulatory Setting

Local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

City of Newport Beach Municipal Code

The following provisions from the City's Municipal Code help minimize light and glare impacts associated with new development projects and are relevant to the proposed project.

- **Title 20 (Planning and Zoning), Chapter 20.60 (Property Development Standards), Section 20.30.070 (Outdoor Lighting).**

  A. **General Outdoor Lighting Standards.**

     1. All outdoor lighting fixtures shall be designed, shielded, aimed, located, and maintained to shield adjacent properties and to not produce glare onto adjacent properties or roadways. Parking lot light fixtures and light fixtures on buildings shall be full cut-off fixtures.

  B. **Light Standards within Parking Lots.** Light standards within parking lots shall be the minimum height required to effectively illuminate the parking area and eliminate spillover of light and glare onto adjoining properties and roadways. To accomplish this, a greater number of shorter light standards may be required as opposed to a lesser number of taller standards.

  C. **Outdoor Lighting Standards for Buildings, Statues, Other Manmade Objects, and Landscapes.** Spotlighting or floodlighting used to illuminate buildings, statues, signs, or any other objects mounted on a pole, pedestal, or platform or used to accentuate landscaping shall consist of full cut-off or directionally shielded lighting fixtures that are aimed and controlled so that the directed light shall be substantially confined to the object intended to be illuminated to minimize glare, sky glow, and light trespass. The beam width shall not be wider than that needed to light the feature with minimum spillover. The lighting shall not shine directly into the window of a residence or directly into a roadway. Light fixtures attached to a building shall be directed downward.

Airport Business Area Integrated Concept Development Plan

The Airport Business Area Integrated Conceptual Development Plan (ICDP), which was adopted by the Newport Beach City Council in September of 2010, is intended to implement Newport Beach General Plan Land Use Policy LU 6.15.11 (Conceptual Development Plan Area). This policy requires a single conceptual development plan for any residential development in that portion of the Airport Area that is generally bounded by MacArthur Boulevard, Jamboree Road, and Birch Street before any residential development in this area (see Figure 3-5, *Integrated Concept Development Plan*, for ICDP boundary), which includes the project site. The regulatory plans called for in the ICDP are required to describe more fully the proposed design of buildings, parking, streets, pedestrian ways, parks and open spaces, and how infrastructure required to support the proposed development will be provided. The regulatory plans are also required to adhere to the following guiding principles:

- Establish a pattern of pedestrian-scaled streets and paseos that break up the large blocks and provide connectivity within and between neighborhoods and with community amenities.

- Create a neighborhood park as the principal focal point of the village, with additional pocket parks that provide community identity and amenity.
- Provide for building massing that creates a strong spatial definition along streets, and steps down to promote a pedestrian-scaled character.
- Integrate residential with ground-level uses that promote active and engaging street fronts.
- Establish a diversity of housing types, including row house and podium mid- and high-rise apartments.

5.1.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

AE-1 Have a substantial adverse effect on a scenic vista.

AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

AE-3 Substantially degrade the existing visual character or quality of the site and its surroundings.

AE-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: AE-2. This impact will not be addressed in the following analysis.

5.1.3 Environmental Impacts

The proposed project would include the development of a new master-planned community that would introduce residential and neighborhood-serving retail uses and park space adjacent to an existing office business park known as the Koll Center Newport. More specifically, the proposed project would consist of mixed uses with up to 1,244 residential units, 11,500 square feet of neighborhood-serving retail space, and 2.05 acres of park space (see Figure 3-6, *Site Plan and Phasing Plan*). Proposed buildings would range from 30 feet to 75 feet in height, with residential towers up to 150 feet high. Residential product types would include a mix of townhomes, mid- and high-rise condominiums, and affordable housing.

The proposed project would be developed in two phases, as summarized in Table 3-2, *Uptown Newport Land Use Summary*. Phase 1 would involve demolition of the Half Dome building and other site improvements (e.g., parking area, drive aisles) to accommodate the initial residential units and commercial development of Uptown Newport. The TowerJazz would continue operating during construction and initial operation of Phase 1. The parking lot located on the north end of the site would also remain under this phase, as it would serve the parking needs of the TowerJazz building. Additionally, the existing Southern California Edison (SCE) substation located at the southern end of the project site would continue to operate during construction and initial operation of Phase 1. Phase 2 would include demolition of the TowerJazz facility, the SCE substation, and other site improvements (e.g., parking area, drive aisles) to accommodate the remainder of residential units. Development of Phase 1 is projected to start in 2013 and be completed in 2018 and Phase 2 is anticipated to begin in 2017 and be completed in 2021.

A detailed description of the proposed project is provided in Chapter 3, *Project Description*.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.1-1: THE PROPOSED PROJECT WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON SCENIC VISTAS. [THRESHOLD AE-1]

Impact Analysis:

Phase 1

Vistas provide visual access or panoramic views to a large geographic area and are generally located at a point where surrounding views are greater than one mile away. Panoramic views are usually associated with vantage points over a section of urban or natural areas that provide a geographic orientation not commonly available. Examples of panoramic views might include an urban skyline, valley, mountain range, a large open space area, the ocean, or other water bodies. Policies NR20.1 and NR20.3 in the Natural Resources Element of the City's General Plan identify public view corridors and points to protect significant scenic and visual resources that include open space, mountains, canyons, ridges, ocean, and harbor from public vantage points.

As shown in Figure NR3, Coastal Views, of the City's General Plan, the portion of Jamboree Road on which the project site is located is not a designated coastal view road and not considered a public viewpoint. The closest coastal-view designated portion of Jamboree Road to the project site is south of SR-73, approximately 0.5 mile southwest of the project site. Due to the distance and highly urbanized nature of the project area, public coastal views along this view corridor would not be impacted by the proposed project.

The only scenic vista afforded to the project site and the office uses adjacent to and west of the site is undeveloped open space beyond Jamboree Road within the North Campus planning area of UCI (see Figure 3-3, *Aerial Photograph*). However, only partially obscured views of this undeveloped open space are afforded from limited areas of the existing office uses west of the project site because of the buffer created by the existing dense and mature landscaping and the Half Dome and TowerJazz buildings. New structures and buildings associated with the proposed project would not substantially affect existing limited/intermittent views of the undeveloped open space.

Additionally, the North Campus planning area is covered under UCI's 2007 Long Range Development Plan (LRDP). Per Figure 5-2, Land Use Plan for 2007 LRDP, which is reproduced as Figure 5.1-1 in this section, the North Campus area is designated as Mixed Use-Commercial. The approved development program for North Campus under the 2007 LRDP includes 950,000 square feet of office and/or research and development space and 435 multi-family dwelling units. The undeveloped open space is slated for future development and will not always remain as open space.

Therefore, the proposed project would not obstruct, interrupt, or diminish a valued panoramic view and no scenic vista impacts would occur.

Phase 2

The analysis for Phase 1 also applies to Phase 2.

IMPACT 5.1-2: THE PROPOSED PROJECT WOULD SUBSTANTIALLY ALTER THE VISUAL CHARACTER OF THE PROJECT SITE. [THRESHOLD AE-3]

Impact Analysis:

Phase 1

Given the existing industrial, office, and commercial nature of the project site and its surroundings, the transition to residential land uses would change the general character of the project area. Phase 1 would introduce new structures into an urbanized area of the City of Newport Beach. Although the proposed residential building heights (up to 150 feet within the designated tower zones shown in Figure 5.1-2, *Building Height Limit Plan*), massing, and site coverage under Phase 1 would overall be slightly greater than the existing industrial buildings onsite, the proposed project's variable building scale would be comparable to existing office building skylines to the north, south, and west. To the north are clusters of office buildings ranging from 1 to 15 stories in height, to the west are office buildings ranging from 1 to 4 stories high, and to the south are two 20-story office buildings. Also the massing and heights of the proposed residential buildings would not create a significant visual barrier or separation within the office park.

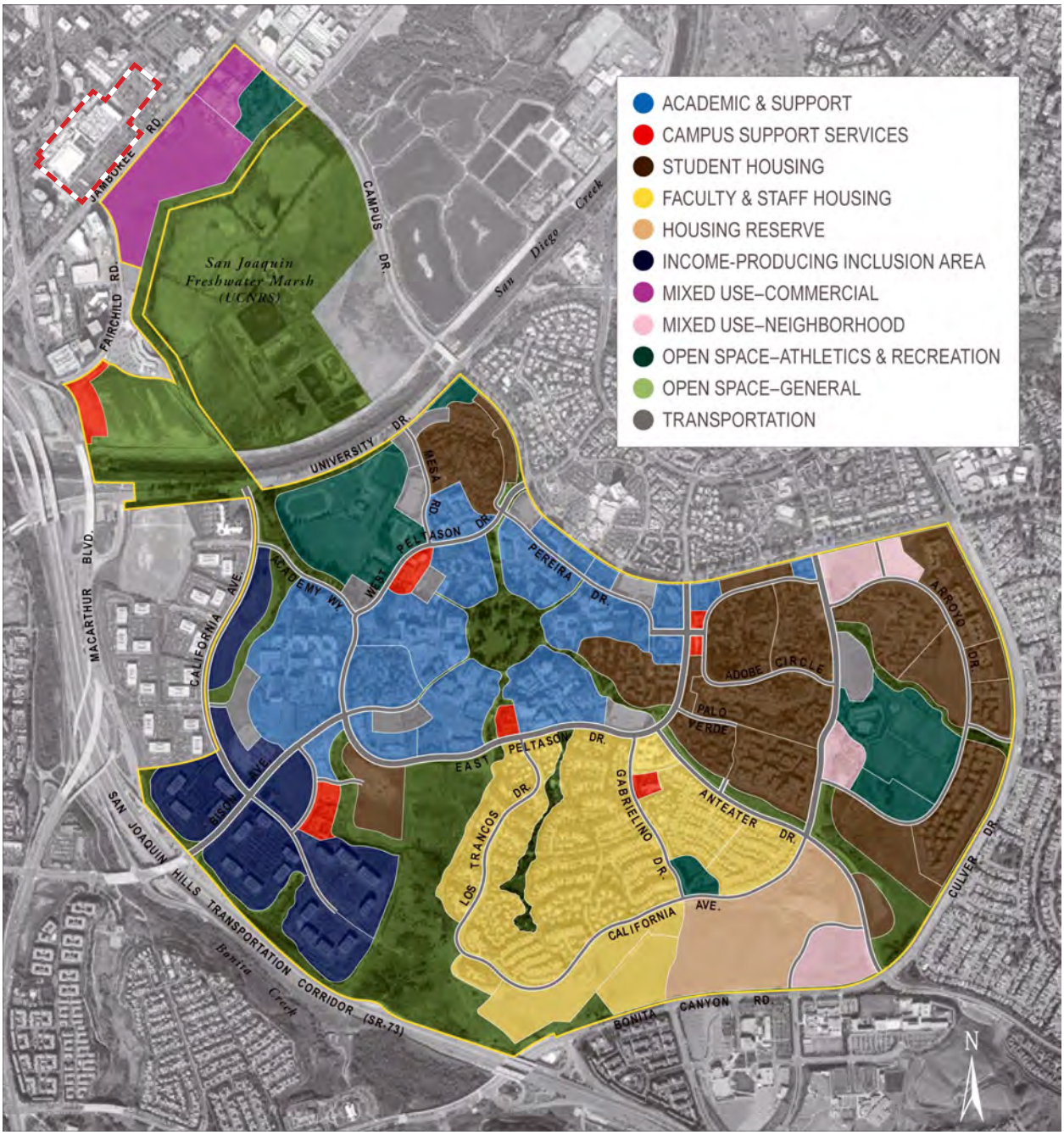
As shown in Figures 3-13, *Illustrative Site Plan and Vision*, 5.1-3, *General Project Character: Architecture and Lighting*, and 5.1-4, *General Project Character: Circulation and Landscaping*, the proposed project would be characterized by defined architectural, site, landscape, lighting and streetscape design, which would be driven by the project's Design Guidelines and its regulatory plan, the Planned Community (PC) Development Plan. The standards and guidelines outlined in the Design Guidelines, PC Development Plan, and Phasing Plan would ensure the orderly development of the proposed project and that the project is developed in a manner that is not visually detrimental to the surrounding commercial and office uses. The standards and guidelines would comprise the basic framework that the City of Newport Beach would use to evaluate individual development projects within the project site. In particular, the design standards and guidelines would establish the framework for high-quality development features throughout the project site through site design (e.g., building orientation, pedestrian spaces, circulation and parking, walls and fences, screening and placement of service and utility areas), architecture (e.g., mass, scale and form, style, material and color), and streetscape elements (e.g., lighting, street furnishings, paving materials). The project's PC Development Plan and Phasing Plan also outline a framework for the orderly development of site improvements and infrastructure such as new pedestrian paths (e.g., sidewalks, paseos), driveways, and roadways.

Following is a discussion of some of the key elements of the proposed project. Implementation of the standards and guidelines outlined in the Design Guidelines and PC Development Plan would ensure the orderly design and development of the project's buildings, landscaping, circulation, and other site improvements.

Architectural Character

As shown in Figure 5.1-3 and outlined in the Design Guidelines, building masses, elevations, and rooflines would be modulated to promote visual interest; complement the existing architecture of the surrounding area; break up long continuous masses; and provide visual interest to the overall project. Following are a few of the provisions from the Design Guidelines that would be incorporated into the proposed project:

UCI Land Use Plan for 2007 Long Range Developlment Plan



Project Site Boundary

0 2,000
Scale (Feet)

Source: UCI 2007 Long Range Developement Plan

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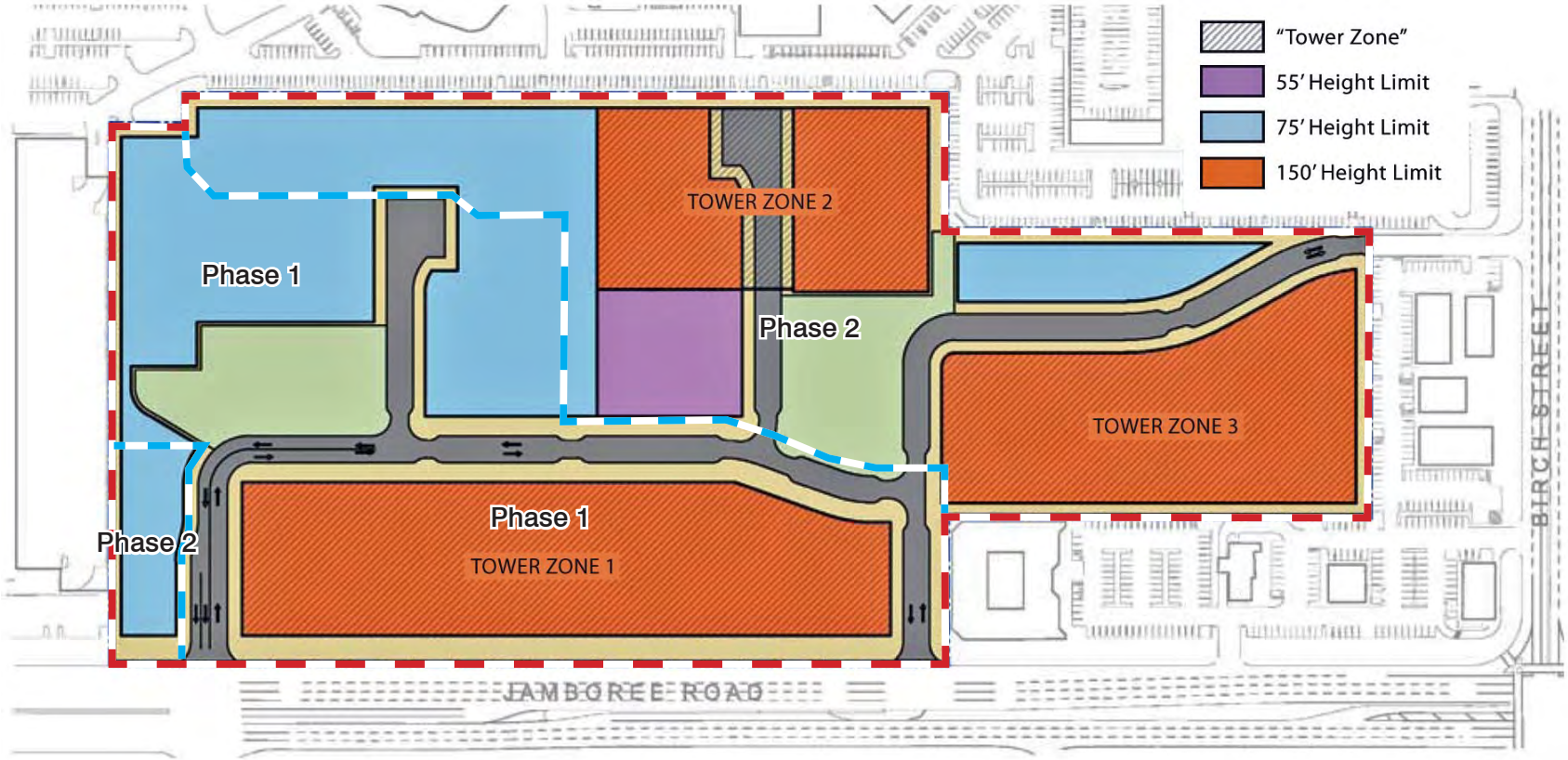
Building Height Limit Plan



Project Site Boundary

Phasing Boundary

0 200

Scale (Feet)

Source: MVE & Partners Inc

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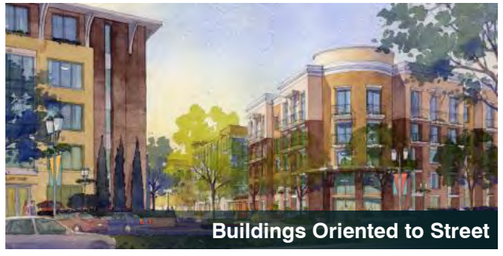
General Project Character: Architecture and Lighting

Architecture

Tower Element Emphasizing Street Corner

Warm and Rich Color Tones

Variations in Roof Height


Buildings Oriented to Street

Residential Tower

Lighting

Safety Lighting along Path

Lighting on Residential Tower

Lighting That Enhances Building Forms

Fixtures That Complement Architecture of Buildings

Note: For conceptual purposes only.
Source: Design Guidelines, MVE & Partners 2011

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General Project Character: Circulation and Landscaping

Circulation

Pedestrian Circulation

Sidewalk Bulb-outs

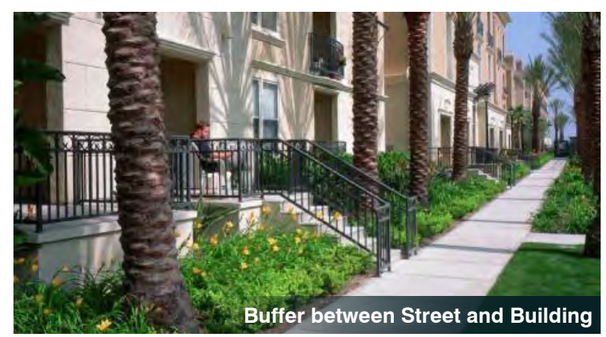
Angle-in Parking

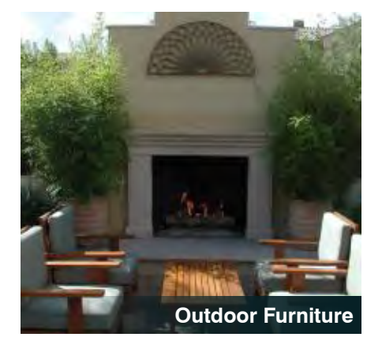
Decorative Pavers

Landscaping

Landscaped Paseo

Street Trees at Neighborhood Entry


Buffer between Street and Building


Outdoor Furniture

Note: For conceptual purposes only.
Source: Design Guidelines, MVE & Partners 2011

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- **Roofs.** Roof forms should be integrated into the overall massing composition of each major building component and be complete or appear complete.

- **Massing Principles.** All four sides of each building should be designed with elevations that are well integrated with the overall architectural style.

- **Windows.** Window fenestration between floors should be aligned whenever possible and windows should generally be recessed to add shadow and depth.

- **Color.** The palette of building colors should generally be warm and rich in tone and be appropriate to the style of the building.

- **Wall Materials.** Colors, materials, and finishes should be coordinated on all exterior elevations to achieve continuity of design.

Additionally, the proposed project's PC Development Plan would ensure that buildings and structures proposed within the project site would be developed to be sensitive to and compatible with existing and future surrounding land uses. For example, as outlined in the PC Development Plan, tower portions of high-rise buildings are required to be at least partially surrounded with low- and mid-rise structures (up to 75 feet) fronting public streets and pedestrian ways or other means to promote a more pedestrian scale. Among other components, the proposed project's PC Development Plan includes development standards for building setbacks and heights, landscaping, lighting, and residential compatibility.

Lighting

As shown in Figure 5.1-3, light fixtures and standards would be installed to promote visual interest and a unified theme. Lighting fixtures throughout the project site would be designed and installed in accordance with the provision outlined in the project's Design Guidelines. For example, as outlined in the Design Guidelines, a unified lighting theme in common areas and street fixtures is encouraged; a hierarchy of lighting fixture heights and sizes should be implemented within the community; the overall unified lighting style could range from modern to classical; and the lighting is encouraged to match the architecture style of the buildings. Additionally, the PC Development Plan provides lighting standards for outdoor areas, parking structures, buildings, and ancillary structures.

Landscaping

The landscape guidelines outlined in the Design Guidelines call for planting dense evergreen trees and screen walls along the project site boundaries in order to buffer the proposed residential development from the surrounding office park uses (see Figures 3-13, *Illustrative Site Plan and Vision*, and 5.1-4, *General Project Character: Landscaping and Circulation*). The standards outlined in the Phasing Plan also call for temporary transitional landscape along the entry drive adjacent to the existing electrical substation to be planted with dense evergreen trees and a screen wall in order to block views from the entry drive experience; temporary transitional landscape in between the spine street and the TowerJazz building to be planted with dense trees and a screen wall or fence in order to block views from the street experience; and temporary transitional landscape to be planted within the paseo adjacent to the TowerJazz building. The landscape guidelines and standards would not only ensure the provision of high-quality landscape design, but would also ensure that adequate community buffers and edges would be provided; help soften the features and massing of the proposed project's buildings throughout the project site and along the various site boundaries; help minimize the visibility of the buildings; and help buffer site improvements such as surface parking and utility and service areas (see Figures 3-13 and 5.1-4). Additionally, the PC Development Plan requires submittal of

landscape and irrigation plans to be prepared by qualified professionals and be subject to the review and approval of the City. These plans must be consistent with the project's Design Guidelines and the City's Water Efficient Landscaping Ordinance (Chapter 14.17 of the City's Municipal Code).

The TowerJazz building would continue to operate during construction and initial operation of Phase 1. The industrial building would be adequately screened from the proposed project's residences. Specifically, the proposed project's comprehensive landscape plan outlined in the Phasing Plan and the landscape guidelines outlined in the Design Guidelines call for the planting of dense evergreen trees and screen walls along the project site boundaries in order to buffer the proposed residential development from the surrounding uses, including the continued operation of the TowerJazz building under this phase. The dense landscaping and screen walls would help minimize the visual impacts of the building.

Circulation

As shown in Figure 5.1-4, pedestrian and circulation improvements would be designed and installed in a manner that would complement and enhance the architectural and landscape character of the project site and its surroundings. All circulation improvements would be implemented in accordance with the provision outlined in the project's PC Development Plan and Design Guidelines. Following are a few of the provisions from the Design Guidelines that would be incorporated into the proposed project:

- **Street Hierarchy.** The proposed development should create attractive streetscapes that promote both safe and convenient driving practices as well as encourage street level pedestrian activity.

- **Streetscapes.** Streetscapes within the proposed development should be scaled according to their function within the circulation hierarchy and promote both safe and convenient driving practices as well as encourage street level pedestrian activity.

- **Neighborhood Street.** Neighborhood streets should be lined with formal deciduous street trees.

- **Paseos.** Paseos could be lined with vertical palms or canopy trees and the beginning and end of paseos should be enhanced with accent trees or palms.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area and other remaining site improvements would be demolished to develop the remaining residential units and other site improvements of the proposed project. Redevelopment of this portion of the project site would result in the construction of additional residential buildings, neighborhood streets, parks and common areas, paseos, and sidewalks.

As with Phase 1, the transition to residential land uses under Phase 2 would change the general character of the project area. Although the proposed residential building heights, massing and coverage under Phase 2 would overall be slightly greater than the existing TowerJazz building, the proposed project's variable building scale would be comparable in size to existing office building skylines to the north, south, and west and to the residential buildings associated with Phase 1 of the proposed project. The massing and heights of the proposed residential buildings under Phase 2 would also not create a significant visual barrier or separation within the office park. As shown in Figures 3-3, *Illustrative Site Plan and Vision*, 5-3, *General Project Character – Architectural Character and Lighting*, and 5-2, *General Project Character – Landscaping and Circulation*, Phase 2 of the proposed project would also be characterized by high-quality architectural, site, landscape, lighting and streetscape design, which would be driven by the project's Design Guidelines and Phasing Plan and its regulatory plan, the PC Development Plan.

Conclusion

As demonstrated above, although the proposed project would alter the visual appearance and character of the project site and its surroundings under both phases, adherence to the development standards and design guidelines outlined in the proposed project's PC Development Plan, Design Guidelines and Phasing Plan would ensure that the proposed project would be developed as a high-quality master planned community and would not negatively degrade the visual character of the project site or surrounding area.

Additionally, as outlined in Section 4.1.2 (Submittal Contents) of the proposed project's PC Development Plan, project development submittals for Site Development Review by the City are required to include plans that contain:

- Existing conditions including adjacent structures and proposed improvements.
- Schematic elevations of principal façades (only those façades facing public rights of way and not interior-oriented courtyards/spaces) that clearly demonstrate the architectural theme of all structures, including site walls and signs.
- A schematic landscape plan.

As outlined in Section 4.1.3 (Review and Action) of the PC Development Plan, Site Development Review submittals are required to be reviewed by the Community Development Director and the following findings are required to be made:

- The proposed use and/or development is consistent with the City's General Plan.
- The proposed use and/or development is consistent with the Uptown Newport PC Development Plan and Design Guidelines.

IMPACT 5.1-3: THE PROPOSED PROJECT COULD CAUSE SHADE/SHADOW IMPACTS ON SURROUNDING USES. [THRESHOLD AE-3]

Impact Analysis: With the exception of the man-made lake west of the project site near Von Karman Avenue, there are no other shade-sensitive uses (e.g., residential, recreational and park areas, plazas, schools, and nurseries) on or near the project site. The nearest shade-sensitive residential use are residences within 3000 The Plaza residential development located approximately 0.25 mile northeast of the project site at the northeast corner of Jamboree Road and Campus Drive. However, office uses and their related common areas are located adjacent to and west of the project site. Although the majority of the proposed project (Phases 1 and 2) would include low and mid-rise residential buildings (30 feet to 75 feet in height), the high-rise residential buildings (up to 150 feet high or 13 stories) that would be developed under both project phases would block sunlight and cast shadows on the adjacent office uses and areas at certain times of the day during the winter and summer solstice and the fall equinox.

Shadows cast by buildings and structures vary in length and direction throughout the day and from season to season. Shadow lengths increase during the "low sun" or winter season and are longest during the winter solstice. The winter solstice, therefore, represents the worst-case shadow condition and the potential for loss of access to sunlight that a project could cause is greatest. Shadow lengths are shortest during the summer solstice, while shadows cast during the spring and fall equinox fall midway between the summer and winter extremes.

Figures 1a through 1c, *Fall Equinox Shadows*, in Appendix B illustrate the approximate shadows that the proposed project's buildings would cast during the month of September at 9 AM, 12 PM, and 3 PM. Figures 2a through 2c, *Winter Solstice Shadows*, illustrates the approximate shadows cast during the month of

December at 9 AM, 12 PM, and 3 PM. Figures 3a through 3c, *Summer Solstice Shadows*, illustrate the approximate shadows cast during the month of June at 9 AM, 12 PM, and 3 PM. The figures conceptually depict shadows cast based on the potential location of where high-rise residential towers could occur. The shadows cast during the spring equinox are similar to those of the fall equinox; therefore, separate exhibits demonstrating the shadows cast during the spring equinox were not provided.

Figure 5.1-2, *Building Height Limit Plan*, depicts the location of the potential tower zones. These zones are the designated areas where residential towers could be located. As outlined in Section 3.1 (Permitted Height of Structures) of the proposed project's PC Development Plan and as demonstrated in the shadow/shadow analysis figures (Figures 1a through 3c in Appendix B), no more than two residential towers are permitted to be located in any of the designated tower zones.

The City of Newport Beach does not have criteria for shade or shadow impacts. Other jurisdiction's guidelines, however, suggest that potentially significant impacts may occur if 50 percent of shadow-sensitive areas are in shade/shadow for at least 50 percent of daylight hours during a season. For example, as a sample industry standard, project impacts might be considered significant if a substantial amount of shadow-sensitive uses/areas would be shaded by project-related structures for more than three hours between the hours of 9:00 AM and 3:00 PM Pacific Standard Time (between late October and early April), or for more than four hours between the hours of 9:00 AM and 5:00 PM Pacific Daylight Time (between early April and late October). Although the City of Newport Beach has not adopted shade/shadow thresholds, these guidelines have been applied to this project for evaluating project-related impacts.

Phase 1

Fall Equinox, Winter Solstice, and Summer Solstice

Note that the shadow analysis figures (Figures 1a through 3c in Appendix B) show the project buildout condition only and represent a worst case scenario. The TowerJazz building that would remain during the initial operational phase of Phase 1 is not shown in these figures. Potential Phase 1 impacts on the TowerJazz building are based on shadows cast by residential buildings that would be developed under this phase.

Although shadows would be cast by mid- and high-rise buildings under the Phase 1 development at different times of the days during the various seasons, shadows would be projected predominantly within the project site, with minimal shadows being projected on surrounding office uses and their related common areas, parking areas, and drive aisles. Additionally, partial shadows would be cast on the TowerJazz building at certain times of the day. Applying the threshold described above as a guideline and as illustrated in the shadow/shade analysis figures, no onsite or surrounding land uses or areas would be shaded for more than four hours on any day during the fall equinox or summer solstice or for more than three hours on any day during the winter solstice. Therefore, shade/shadow impacts would not occur under Phase 1 during the fall equinox, winter solstice, or summer solstice months.

Shadow Impacts on Solar Collectors

With regard to natural sunlight for solar collectors (thermal or photovoltaic), based on a review of aerial imaging, none of the affected adjacent office buildings or the TowerJazz building currently have solar collectors on the roofs or along the building parapets that would be affected by shadows cast by the proposed project's buildings. Additionally, in a worst case scenario, any portion of the buildings affected where solar collectors could potentially be placed in the future by building owners would not be shaded for

more than three hours during the summer solstice or fall equinox or for more than four hours during the winter solstice. Therefore, no impacts on solar collectors are anticipated.

Conclusion

As demonstrated above, no significant shade/shadow impacts are anticipated to occur during the fall equinox, winter solstice, or summer solstice under Phase 1.

Phase 2

Fall Equinox Shadows

As shown in Figures 1a through 1c, *Fall Equinox Shadows*, shadows cast by the proposed project's buildings under Phase 2 at 9:00 AM on the fall equinox would primarily fall to the west within the project site, with a few of the residential buildings casting some shadows on buildings, common areas, and parking areas and drive aisles of the adjacent office uses. At noon, shadows would be cast to the north primarily within the project site, with a few of the residential buildings casting some shadows on parking areas and drive aisles of the adjacent office uses. At 4:00 PM, shadows would be cast to the northeast and east predominantly within the project site, with a few of the residential buildings casting some shadows on buildings, common areas, and parking areas and drive aisles of the adjacent office and commercial uses. Applying the threshold described above as a guideline and as illustrated in Figures 1a through 1c, no surrounding land uses or areas would be shaded for more than four hours on any day. Therefore, shade/shadow impacts would not occur during the fall months.

Winter Solstice Shadows

As shown in Figures 2a through 2c, *Winter Solstice Shadows*, shadows cast by the proposed project's buildings at 9:00 AM on the winter solstice would primarily fall to the west within the project site, with a few of the residential buildings casting some shadows on buildings, common areas, and parking areas and drive aisles of the adjacent office uses. At noon, shadows would be cast to the north primarily within the project site, with a few of the residential buildings casting some shadows on one office building and common areas, parking areas and drive aisles of other adjacent office uses. At 4:00 PM, shadows would be cast to the northeast and east predominantly within the project site, with a few of the residential buildings casting some shadows on buildings, common areas, and parking areas and drive aisles of the adjacent office and commercial uses. Applying the threshold described above as a guideline and as illustrated in Figures 2a through 2c, a very small portion of the adjacent office building to the northeast would be shaded for more than three hours on any day. The amount and area of shading would be minimal and the area of shading consists mainly of the office building walls. Therefore, shade/shadow impacts would not occur during the winter solstice months.

Summer Solstice Shadows

As shown in Figures 3a through 3c, *Summer Solstice Shadows*, shadows cast by the proposed project's buildings at 9:00 AM on the summer solstice would primarily fall to the west within the project site, with a few of the residential buildings casting some shadows on parking areas and drive aisles of the adjacent office uses. At noon, minimal shadows would be cast to the north primarily within the project site. At 4:00 PM, shadows would be cast to the northeast and east predominantly within the project site, with a few of the residential buildings casting some shadows on parking areas and drive aisles of the adjacent office and commercial uses. Applying the threshold described above as a guideline and as illustrated in Figures 3a

through 3c, no surrounding land uses or areas would be shaded for more than four hours on any day. Therefore, shade/shadow impacts would not occur during the summer months.

Shadow Impacts on Solar Collectors

With regard to natural sunlight for solar collectors (thermal or photovoltaic), based on a review of aerial imaging, none of the affected office buildings currently have solar collectors on the roofs or along the building parapets that would be affected by shadows cast by the proposed project's buildings. Additionally, in a worst case scenario, any portion of the buildings affected where solar collectors could potentially be placed in the future by building owners would not be shaded for more than three hours during the summer solstice or fall equinox or for more than four hours at the winter solstice. Therefore, no impacts are anticipated.

Conclusion

As demonstrated above, no shade/shadow impacts are anticipated to occur at the fall equinox or summer or winter solstice under either phase of the proposed project. Additionally, as outlined in Section 3.1 (Permitted Height of Structures) of the proposed project's PC Development Plan, no more than two residential towers are permitted to be located in any of the designated tower zones (see Figure 5.1-2, *Building Height Limit Plan*). Limiting the number of towers by zone would minimize the shadows cast on adjacent properties..

IMPACT 5.1-4: THE PROPOSED PROJECT WOULD GENERATE ADDITIONAL LIGHT AND GLARE IN THE PROJECT AREA THAT COULD IMPACT SURROUNDING LAND USES. [THRESHOLD AE-4]

Impact Analysis:

Phase 1

Under Phase 1, redevelopment of this portion of the project site would result in additional lighting to provide better nighttime illumination for the proposed residential buildings, parking areas, parks and common areas, paseos, and sidewalks. Nighttime illumination would also be used to enhance security and safety for pedestrians and vehicles. Other sources of light would include security lighting, nighttime traffic, and sign illumination. Lighting and glare from the project site would be visible from surrounding areas that are currently developed with commercial/office uses to the north, west, and south. These new sources of nighttime lighting have the potential to increase nighttime light and glare in the project area.

The City of Newport Beach does not have a lighting ordinance specifying the maximum amount of light that may be generated by new projects. However, the City does have adopted standards that apply to the installation and illumination of light fixtures. All project-related exterior lighting would be designed, arranged, directed, or shielded in such a manner as to contain direct illumination onsite, in accordance with Section 20.30.070.A (General Outdoor Lighting Standards) of the City's Municipal Code and Standard Lighting Condition 1 (outlined at the end of this section), thereby preventing excess illumination and light spillover onto adjoining land uses and/or roadways. Lighting would be installed to accommodate safety and security while minimizing impacts on surrounding areas. Parking area lighting would be the minimum necessary that is consistent with the City's Municipal Code. Consistent with Standard Lighting Condition 3 (outlined at the end of this section), project applicants are also required to submit an electrical engineer's photometric study prior to the issuance of building permits to demonstrate that lighting requirements are met.

Additionally, as outlined in Section 4.1.2 (Submittal Contents) of the proposed project's PC Development Plan, development submittals for Site Development Review by the City are required to include a schematic lighting plan (site and exteriors), which would include lighting fixture locations, heights, and product type. Public areas would also be required to be illuminated with a minimum maintained 0.5 foot-candle on the driving or walking surface during hours of operation and one hour thereafter, as outlined in Section 3.5 (Lighting) of the PC Development Plan. Development of the proposed project would also be required to comply with California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6, of the California Code of Regulations, which outlines mandatory provisions for lighting control devices and luminaires.

Furthermore, the light sources proposed for the project would be generally similar to those of existing onsite and surrounding land uses. Because the project site and surrounding area are largely developed, the lighting associated with improvements and structures of the proposed project would not substantially increase nighttime light and glare within the project site or its surroundings.

With adherence to the provisions of the City's Municipal Code and standard lighting conditions, the proposed project's PC Development Plan, and California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings, nighttime lighting and glare impacts and potential spillover of the proposed project would not occur on surrounding land uses or roadways.

With regards to nighttime light and glare sources that would continue to emanate from the TowerJazz building under Phase 1, the residential units under Phase 1 would be adequately screened from this building and its associated light sources. Specifically, the proposed project's comprehensive landscape plan outlined in the PC Development Plan and the landscape guidelines outlined in the Design Guidelines call for planting dense evergreen trees and screen walls along the project site boundaries in order to buffer the proposed residential development from the surrounding uses, including the TowerJazz building. The dense landscaping and screen walls would help minimize the light and glare sources that would emanate from this building.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area and other remaining site improvements would be demolished to develop the remaining residential units and other site improvements of the proposed project. Redevelopment of this portion of the project site would result in additional lighting to provide better nighttime illumination for the proposed residential buildings, parking areas, parks and common areas, paseos, and sidewalks.

As with Phase 1, all Phase 2 project-related lighting sources would be required to comply with the provisions of the City's Municipal Code and standard lighting conditions, the proposed project's PC Development Plan, and California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings. With adherence to these provisions, nighttime lighting and glare impacts and potential spillover of the proposed project would not occur on surrounding land uses or roadways.

Additionally, the light sources proposed for this phase would be generally similar to those of existing onsite and surrounding land uses. Because the project site and surrounding area are largely developed, the lighting associated with improvements and structures of this phase of the proposed project would not substantially increase nighttime light and glare within the project site or its surroundings.

5.1.4 Cumulative Impacts

Aesthetic/Visual Character

Because aesthetic impacts are localized to the project site and immediate surrounding area, cumulative impacts would include nearby projects (Koll project and UCI's North Campus). As shown in Figures 4.3, *Approved Traffic Phasing Ordinance Projects*, and 4.4, *Cumulative Projects Location Map*, cumulative projects in the immediate project vicinity includes the Koll project, immediately west of and adjacent to the project site. As with the proposed project, this cumulative project would alter the visual character within the Koll Center Newport office park. However, because of the highly developed nature of the project area, development of the proposed project in addition to the Koll project would not negatively impact the visual character of the project area. Additionally, this would not constitute a significant adverse impact as the project site and Koll site is anticipated to be developed in accordance with the anticipated development that would occur in these areas in accordance with the City's General Plan and the ICDP. Furthermore, as with the proposed project, the Koll project applicant would be required to prepare site design and regulatory plans.

The North Campus planning area of UCI (see Figures 3-3, *Aerial Photograph*, and 5.1-1, *UCI Land Use Plan for 2007 Long Range Development Plan*) is covered under UCI's 2007 LRDP. The approved development program for North Campus under the 2007 LRDP includes 950,000 square feet of office and/or research and development space and 435 multi-family dwelling units. Therefore, the undeveloped open space that makes up the North Campus area is slated for future development and will not always remain as open space. Development of this area would be consistent with and guided by UCI's 2007 LRDP.

In consideration of the preceding factors, the project's contribution to cumulative aesthetic impacts would be rendered less than considerable, and therefore, less than cumulatively significant.

Light and Glare

Due to the highly developed nature of the project area and the existence of light and glare from the existing industrial use and the surrounding properties, the proposed project is not anticipated to add significantly to the creation of nighttime light and glare in the project vicinity. Lighting levels would not be substantially greater than existing lighting levels at the project site, and project-related light sources would be similar to those of the surrounding land uses. As shown in Figures 4.3, *Approved Traffic Phasing Ordinance Projects*, and 4.4, *Cumulative Projects Location Map*, the only cumulative project in the immediate vicinity of the project site is the Koll project. Lighting from the proposed project would combine with the potential increase in lighting associated with the future development of the Koll project. However, as with the proposed project, development of the Koll project would occur in a highly urbanized area of the City and substantial sources of light already exist in the project area. Additionally, the Koll project would be required to adhere to the same lighting standards and requirements as the proposed project.

In consideration of the preceding factors, the project's contribution to cumulative light and glare impacts would be rendered less than considerable, and therefore less than cumulatively significant.

Shade/Shadow

The relative effects of shading from structures are site specific. As concluded above, shade/shadow impacts of the proposed project would not be significant. As with the proposed project, the Koll center project would be required to undergo an analysis at the time the environmental review process is initiated. Furthermore, as with the proposed project, the Koll project applicant would be required to prepare site design and regulatory

plans to regulate development on the Koll site, which would include provisions for shade/shadow analysis and design standards.

5.1.5 Existing Regulations and Standard Conditions

Regulations

- California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6, of the California Code of Regulations
- City of Newport Beach Municipal Code, Title 20 (Planning and Zoning), Chapter 20.60 (Property Development Standards), Section 20.30.070 (Outdoor Lighting)

City of Newport Beach Standard Conditions of Approval

The following City-adopted standard operating conditions of approval would apply to the proposed project:

1. Lighting shall be in compliance with applicable standards of the Zoning Code. Exterior on-site lighting shall be shielded and confined within site boundaries. No direct rays or glare are permitted to shine onto public streets or adjacent sites or create a public nuisance. "Walpak" type fixtures are not permitted. Parking area lighting shall have zero-cut-off fixtures and light standards shall be the minimum height required to effectively illuminate the parking area and eliminate spillover of light and glare to the adjacent property.

2. The site shall not be excessively illuminated based on the luminance recommendations of the Illuminating Engineering Society of North America, or, if in the opinion of the Community Development Director, the illumination creates an unacceptable negative impact on surrounding land uses or environmental resources. The Community Development Director may order the dimming of light sources or other remediation upon finding that the site is excessively illuminated.

3. Prior to the issuance of a building permit, the applicant shall prepare a photometric study in conjunction with a final lighting plan for approval by the Planning Department.

4. Prior to issuance of the certificate of occupancy or of final building permits, the applicant shall schedule an evening inspection by the Code and Water Quality Enforcement Division to confirm control of light and glare specified in conditions of approval.

5. Public areas shall be illuminated with a minimum maintained 0.5-foot candle on the driving or walking surface during hours of operation and one hour thereafter.

5.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.1-1, 5.1-2, 5.1-3, and 5.1-4.

5.1.7 Mitigation Measures

Impact 5.1-1

Phases 1 and 2

No significant impacts would occur and no mitigation measures are required.

5.1.8 Level of Significance After Mitigation

Compliance with the existing regulations and provisions outlined in the proposed project's PC Development Plan and Design Guidelines would reduce impacts to a less than significant level. Therefore, no significant unavoidable adverse impacts relating to aesthetics, shade/shadow, and lighting remain.

5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Uptown Newport project (proposed project) to impact air quality in a local and regional context. The analysis in this section is based on the proposed project's land uses and trip generation provided by Kimley-Horn and Associates (Appendix M to this DEIR). The air quality model output sheets are included in Appendix C of this DEIR. A Health Risk Assessment is included as Appendix D of this DEIR.

5.2.1 Environmental Setting

South Coast Air Basin

The project site lies within the South Coast Air Basin (SoCAB), which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest quadrant, with high mountains forming the remainder of the perimeter. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. This usually mild weather pattern is interrupted infrequently by periods of extremely hot weather, winter storms, and Santa Ana winds (SCAQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the project site is the Newport Beach Harbor Monitoring Station (ID No. 046175). The average low is reported at 46.9°F in January while the average high is 73.4°F in August (WRCC 2012).

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages 11.05 inches per year in the project area (WRCC 2012).

Humidity

Although the SoCAB has a semiarid climate, the air near the earth's surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog, especially along the coast, are frequent. Low clouds, often referred to as high fog, are a characteristic climatic feature. Annual average humidity is 70 percent at the coast and 57 percent in the eastern portions of the SoCAB (SCAQMD 2005).

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the SoCAB, combined with other meteorological conditions,

can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished.

The mountain ranges to the east affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

Inversions

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These are the marine/subsidence inversion and the radiation inversion. The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area (SCAQMD 2005).

Air Pollutants of Concern

Criteria Air Pollutants

The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2011).

Volatile Organic Compounds (VOC) are compounds composed primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. Other sources of VOCs include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by VOCs, but rather by reactions of VOCs to forms of secondary pollutants such as ozone (SCAQMD 2005). There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of O_3, the South Coast Air Quality Management District (SCAQMD) has established a significance threshold for this pollutant (SCAQMD 2005).

Nitrogen Oxides (NO_x) are a byproduct of fuel combustion and contribute to the formation of O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO_2). The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure (SCAQMD 2005). The SoCAB is designated as an attainment area for NO_2 under the National AAQS and nonattainment under the California AAQS (CARB 2011).

Sulfur Dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2 (SCAQMD 2005). When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. The SoCAB is designated as attainment under the California and National AAQS (CARB 2011).

Suspended Particulate Matter (PM_{10} and $PM_{2.5}$) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (SCAQMD 2005).

The US Environmental Protection Agency's (EPA) scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms. Diesel particulate matter (DPM) is classified by the California Air Resources Board (CARB) as a carcinogen. The SoCAB is a nonattainment area for $PM_{2.5}$ and PM_{10} under California and National AAQS (CARB 2011).[1]

Ozone (O_3) is commonly referred to as "smog" and is a gas that is formed when VOCs and NO_x, both by-products of internal combustion engine exhaust, undergo photochemical reactions in the presence of sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for the formation of this pollutant. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally, O_3 has been tied to crop damage, typically in the form of stunted

[1] CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards during the period from 2004 to 2007. However, the EPA has not yet approved this request.

growth and premature death. O_3 can also act as a corrosive, resulting in property damage such as the degradation of rubber products (SCAQMD 2005). The SoCAB is designated as extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2011).

Lead (Pb) concentrations decades ago exceeded the state and federal AAQS by a wide margin, but have not exceeded state or federal air quality standards at any regular monitoring station since 1982 (SCAQMD 2005). However, in 2008 the EPA and CARB adopted more strict lead standards, and special monitoring sites immediately downwind of lead sources[2] recorded very localized violations of the new state and federal standards. As a result of these localized violations, the Los Angeles County portion of the SoCAB was designated in 2010 as nonattainment under the California and National AAQS for lead (CARB 2011). The project is not characteristic of industrial-type projects that have the potential to emit lead. Therefore, lead is not a pollutant of concern for the project.

Toxic Air Contaminants

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be

[2] Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 identified that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2010).

attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

In 1998, CARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

In 2000, SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the air toxics risk. In 2008, SCAQMD conducted its third update to its study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in one million. The largest contributor to this risk was diesel exhaust, accounting for approximately 84 percent of the air toxics risk (SCAQMD 2008). In the vicinity of the project site, excess cancer risk is 711 in a million (SCAQMD 2012).

Regulatory Framework

AAQS have been promulgated at the local, state, and federal levels for criteria pollutants. The project site is in the SoCAB and is subject to the rules and regulations imposed by SCAQMD, as well as the California AAQS adopted by CARB and federal AAQS.

Ambient Air Quality Standards

The Clean Air Act (CAA) was passed in 1963 by the US Congress and has been amended several times. The 1970 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the California AAQS by the earliest practical date. The California AAQS tend to be more restrictive than the National AAQS, based on even greater health and welfare concerns.

These National AAQS and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect “sensitive receptors” most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 5.2-1, these pollutants include O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Table 5.2-1
Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm[2]	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm[1]	
	24 hours	0.04 ppm	0.014 ppm[2]	
Respirable Coarse Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 μg/m^3	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 μg/m^3	150 μg/m^3	
Respirable Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 μg/m^3	15 μg/m^3	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 μg/m^3	
Lead (Pb)	Monthly	1.5 μg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 μg/m^3	
	3-Month Average	*	0.15 μg/m^3	
Sulfates (SO_4)	24 hours	25 μg/m^3	*	Industrial processes.
Visibility-Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles[1]	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

Table 5.2-1
Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2012
Notes: ppm: parts per million; $\mu g/m^3$: micrograms per cubic meter
[1] When relative humidity is less than 70 percent.
[2] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
* Standard has not been established for this pollutant/duration by this entity.

Air Quality Management Planning

SCAQMD and the Southern California Association of Governments (SCAG) are the agencies responsible for preparing the air quality management plan (AQMP) for the SoCAB. Since 1979, a number of AQMPs have been prepared. The most recent plan was adopted on June 1, 2007, and incorporates significant new scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The 2007 AQMP proposes attainment demonstration of the federal $PM_{2.5}$ standards through a more focused control of SO_x, directly emitted $PM_{2.5}$, and focused control of NO_x and VOC by 2015. The eight-hour ozone control strategy builds upon the $PM_{2.5}$ strategy, augmented with additional NO_x and VOC reductions to meet the standard by 2024, assuming an extended attainment date is obtained.

The AQMP provides the framework for air quality basins to achieve attainment of the state and federal ambient air quality standards through the State Implementation Plan (SIP). Areas are classified as attainment or nonattainment areas for particular pollutants, depending on whether they meet ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

The attainment status for the SoCAB is shown in Table 5.2-2. The SoCAB is also designated in attainment of the California AAQS for sulfates. According to the 2007 AQMP, the SoCAB will have to meet the new federal 8-hour O_3 standard by 2024, $PM_{2.5}$ standards by 2015, and the recently revised 24-hour $PM_{2.5}$ standard by 2020. SCAQMD has recently designated the SoCAB as nonattainment for NO_2 (entire basin) and lead (Los Angeles County only) under the California AAQS. Transportation conformity for nonattainment and maintenance areas is required under the Federal CAA to ensure federally supported highway and transit projects conform to the SIP. The U.S. EPA approved California's SIP revisions for attainment of the 1997 8-hour O_3 National AAQS for the SoCAB in March 2012. Findings for the new 8-hour O_3 emissions budgets for the SoCAB and consistency with the recently adopted 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) were submitted to the U.S. EPA for approval.

Table 5.2-2
Attainment Status of Criteria Pollutants in the South Coast Air Basin

Pollutant	*State*	*Federal*
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Severe-17 Nonattainment[1]
PM_{10}	Serious Nonattainment	Nonattainment[2]
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Nonattainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Nonattainment (Los Angeles County only)[3]	Nonattainment (Los Angeles County only)[3]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2011.
[1] SCAQMD may petition for Extreme Nonattainment designation.
[2] Annual standard revoked September 2006. CARB approved SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards from 2004 to 2007. However, the EPA has not yet approved this request.
[3] The Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas within the SoCAB are unclassified.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and project area are best documented by measurements made by SCAQMD. The project site is in Source Receptor Area (SRA) 20 – Central Orange County Coastal. The air quality monitoring station closest to the project is the Costa Mesa Monitoring Station. This station does not monitor PM_{10} or $PM_{2.5}$; therefore, data from the Mission Viejo monitoring station was obtained for these criteria pollutants. Data from these stations are summarized in Table 5.2-3. The data show that the area occasionally exceeds the state and federal one-hour and eight-hour O_3 standards and occasionally exceeds the state PM_{10} and federal $PM_{2.5}$ standards. The CO, SO_2, and NO_2 standards have not been exceeded in the last five years in the project vicinity.

Table 5.2-3
Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2006	2007	2008	2009	2010
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm	0	0	0	0	1
State 8-hour ≥ 0.07 ppm	0	2	5	3	2
Federal 8-Hour > 0.075 ppm	0	0	3	0	1
Max. 1-Hour Conc. (ppm)	0.074	0.082	0.094	0.087	0.097
Max. 8-Hour Conc. (ppm)	0.062	0.073	0.080	0.072	0.076
Carbon Monoxide (CO)[1]					
State 8-Hour > 9.0 ppm	0	0	0	0	0
Federal 8-Hour ≥ 9.0 ppm	0	0	0	0	0
Max. 8-Hour Conc. (ppm)	3.01	3.13	1.97	2.16	2.09
Nitrogen Dioxide (NO_2)[1]					
State 1-Hour ≥ 0.18 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.101	0.074	0.081	0.065	0.070
Sulfur Dioxide (SO_2)[1]					
State 1-Hour ≥ 0.04 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.005	0.003	0.003	0.004	0.002
Coarse Particulates (PM_{10})[2]					
State 24-Hour > 50 $\mu g/m^3$	1	3	0	1	0
Federal 24-Hour > 150 $\mu g/m^3$	0	0	0	0	0
Max. 24-Hour Conc. ($\mu g/m^3$)	57.0	74.0	42.0	56.0	34.0
Fine Particulates ($PM_{2.5}$)[2]					
Federal 24-Hour > 35 $\mu g/m^3$	1	2	0	1	0
Max. 24-Hour Conc. ($\mu g/m^3$)	46.9	46.8	32.6	39.2	19.9

Source: CARB 2012.
ppm: parts per million; $\mu g/m^3$: or micrograms per cubic meter.
[1] Data obtained from the Costa Mesa Monitoring Station.
[2] Data obtained from the Mission Viejo Monitoring Station.

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Sensitive population groups include children, the elderly, the acutely ill, and the chronically ill, especially those with cardiorespiratory diseases.

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Other sensitive receptors include retirement facilities, hospitals, and schools. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial, commercial, retail, and office areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

The closest sensitive receptor to the project site is the University of California Irvine (UCI) Child Development Center, which is across Jamboree Road, approximately 260 feet from the project boundary. Other residential land uses are over 1,330 feet from the project site.

5.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines a project would normally have a significant effect on the environment if the project would:

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

AQ-3 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

AQ-4 Expose sensitive receptors to substantial pollutant concentrations.

AQ-5 Create objectionable odors affecting a substantial number of people.

South Coast Air Quality Management District Thresholds

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *CEQA Air Quality Handbook* and the significance thresholds on SCAQMD's website.[3] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

Regional Significance Thresholds

SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5.2-4 lists SCAQMD's regional significance thresholds.

Table 5.2-4
SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_X)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO_X)	150 lbs/day	150 lbs/day
Particulates (PM_{10})	150 lbs/day	150 lbs/day

Source: SCAQMD 2011.

[3] SCAQMD's Air Quality Significance Thresholds are current as of March 2011 and can be found here: http://www.aqmd.gov/ceqa/hdbk.html.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hot spots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. Typically, for an intersection to exhibit a significant CO concentration, it would operate at level of service (LOS) E or worse without improvements (Caltrans 1997).

Localized Significance Thresholds

SCAQMD developed localized significance thresholds (LSTs) for emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at the project site (offsite mobile-source emissions are not included the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS. LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. LST analysis for construction is applicable to all projects of five acres and less; however, it can be used as screening criteria for larger projects to determine whether or not dispersion modeling may be required. In accordance with SCAQMD's LST methodology, construction LSTs are based on the acreage disturbed per day based on equipment use. Based on the anticipated equipment use, construction activities would disturb approximately four acres per day, and therefore the four-acre LSTs are the significance localized thresholds for construction and the five-acre LSTs are the localized significance thresholds for operation. The construction and operational LSTs in SRA 20 are shown in Table 5.2-5 for nonsensitive receptors within 82 feet (25 meters) and sensitive receptors at 260 feet (79 meters) for Phase 1, and within 82 feet (25 meters) for Phase 2 and when Phase 1 overlaps with Phase 2. Because the project is not an industrial project that has the potential to emit substantial sources of stationary emissions, operational LSTs are not an air quality impact of concern associated with the project.

Table 5.2-5
SCAQMD Localized Significance Thresholds

	Threshold (lbs/day)		
	Construction		
Air Pollutant	Phase 1	Phase 1 Overlap / Phase 2	Operation
Nitrogen Oxides (NO_x)	175	175	197
Carbon Monoxide (CO)	1,461	1,461	1,711
Coarse Particulates (PM_{10})	44.1	11.7	4.0
Fine Particulates ($PM_{2.5}$)	13.4	7.7	2.0

Source: SCAQMD 2003; SCAQMD 2006, Based on receptors in SRA 20.
Notes:
Operational LSTs are based on a 5-acre site with receptors within 82 feet (25 meters).
Phase 1 Construction LSTs are based on 4 acres disturbed per day with sensitive land uses at 260 feet (79 meters) for PM_{10} and $PM_{2.5}$ and non-sensitive land uses within 82 feet (25 meters) for CO and NO_2. Note that during overlap of Phase 1 and Phase 2, a portion of Phase 1 residential buildings are assumed to be occupied and analyzed based on the LSTs for sensitive receptors within 25 meters for PM_{10} and PM_{25}
Phase 2 Construction LSTs are based on 4 acres disturbed per day with sensitive land uses within 82 feet (25 meters) for PM_{10} and $PM_{2.5}$ and non-sensitive land uses at 90 feet (27 meters) for CO and NO_2.

Health Risk Thresholds

Whenever a project would require use of chemical compounds that have been identified in SCAQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the SCAQMD. Table 5.2-6 lists the SCAQMD's TAC incremental risk thresholds for operation of a project. Residential, commercial, and office uses do not use substantial quantities of TACs, and these thresholds are typically applied for new industrial projects. Although not officially adopted by SCAQMD, these thresholds are also commonly used to determine air quality land use compatibility of a project with major sources of TACs within 1,000 feet of a proposed project.

Table 5.2-6
SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0

Source: SCAQMD 2011.

5.2.3 Environmental Impacts

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with the type and scale of development associated with the Uptown Newport project. SCAQMD has published the *CEQA Air Quality Handbook* (Handbook) with updates on its Web site that are intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in environmental impact reports and was used extensively in the preparation of this analysis.

SCAQMD has published two additional guidance documents—*Localized Significance Threshold Methodology for CEQA Evaluations* (2003) and *Particulate Matter (PM) 2.5 Significance Thresholds and Calculation Methodology* (2006)—that are intended to provide guidance in evaluating localized effects from emissions during construction. These documents were used in the preparation of this analysis, as was the California Emissions Estimator Model (CalEEMod), Version 2011.1.1, for determination of daily construction and operational emissions, and guidance included in the SCAQMD Final Localized Significance Threshold Methodology for localized construction impacts. Construction emissions are based on the construction schedule and equipment list provided by the applicant (see Appendix C)

A Health Risk Assessment (HRA) was prepared to evaluate potential cancer and noncancer risk to persons residing at the project. Guidance from the Cal/EPA, Office of Environmental Health Hazard Assessment (OEHHA), and California Air Pollution Control Officers Association (CAPCOA) was used to determine the impacts of hazardous air emissions upon land use projects that place receptors in the vicinity of existing sources. Cancer and noncancer risk is based on modeling conducted using the EPA Industrial Source Complex Short-Term (ISCST3) model. The HRA is included as Appendix D to this DEIR.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.2-1: THE UPTOWN NEWPORT PROJECT WOULD NOT CONFLICT WITH THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT 2007 AIR QUALITY MANAGEMENT PLAN. [THRESHOLD AQ-1]

Impact Analysis: A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

The regional emissions inventory for the SoCAB is compiled by SCAQMD and SCAG. Regional population, housing, and employment projections developed by SCAG are based, in part, on the City's general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP. These demographic trends are incorporated into the Regional Transportation Plan (RTP)/ Sustainable Communities Strategy (SCS), compiled by SCAG to determine priority transportation projects and vehicle miles traveled (VMT) within the SCAG region. The AQMP strategy is based on projections from local general plans. Projects that are consistent with the local general plan are considered consistent with the air quality-related regional plan.

The proposed project is considered a major project because it is a residential project with more than 500 dwelling units. Changes in the population, housing, or employment growth projections associated with this project have the potential to affect SCAG's demographic projections and therefore the assumptions in SCAQMD's AQMP. While the project is considered regionally significant, the project is consistent with the Newport Beach General Plan, which assumed conversion of the industrial land uses to residential/mixed-use land uses onsite. Pursuant to General Plan Policy LU 6.15.11, the Airport Business Area Integrated Conceptual Development Plan (ICDP), was prepared and approved. The ICDP planned for residential/mixed-use on the project site and an adjacent, 12.7-acre portion of the Koll Center Newport office park to allow up to 1,504 residential units (1,244 on the Uptown Newport site and 260 units on the Koll property). The project is also directly adjacent to major employment in Orange County. Orange County is traditionally jobs-rich (see Section 5.11, *Population and Housing*). Increasing residential land uses near major employment centers is a key strategy to reducing regional VMT. Therefore, the project would be consistent with regional goals to reduce trips and VMT. Furthermore, at buildout, the proposed project would generate less emissions for some criteria air pollutants than are generated by the existing industrial use onsite. The proposed project would be considered consistent with the AQMP.

IMPACT 5.2-2: SHORT-TERM CONSTRUCTION EMISSIONS GENERATED BY THE UPTOWN NEWPORT PROJECT WOULD RESULT IN NO_X EMISSIONS THAT EXCEED SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT'S REGIONAL SIGNIFICANCE THRESHOLDS AND WOULD CUMULATIVELY CONTRIBUTE TO THE NONATTAINMENT DESIGNATIONS OF THE SOUTH COAST AIR BASIN. [THRESHOLDS AQ-2 AND AQ-3]

Impact Analysis: Construction activities produce combustion emissions from various sources, such as onsite heavy-duty construction vehicles, vehicles hauling materials to and from the site, and motor vehicles transporting the construction crew. Site preparation activities produce fugitive dust emissions (PM_{10} and $PM_{2.5}$) from demolition and soil-disturbing activities, such as grading and excavation. Air pollutant emissions from construction activities onsite would vary daily as construction activity levels change.

The proposed Uptown Newport project would be constructed in two phases. Construction of the two phases could overlap. Construction air pollutant emissions are based on the preliminary phasing schedule and

construction equipment list developed for the project. Criteria air pollutants generated during Phase 1 and Phase 2 are described in more detail below and a summary of maximum daily emissions is also described, including potential overlap of Phase 1 and Phase 2.

Construction Phase Regional Emissions – Phase 1

Phase 1 would commence in 2014 and would involve the demolition of the one-story, 126,675-square-foot office building (Half Dome Building) and associated facilities and construction of the mixed-use buildings containing 680 residential units and 11,500 square feet of retail/restaurant space and 1.03 acre park. During this Phase, the TowerJazz facility and Southern California Edison (SCE) substation would remain onsite. Demolition would take place over an approximately three-month period and require approximately 46 truck trips for removal of materials.[4] Demolition and removal of asbestos-containing materials would be conducted in accordance with SCAQMD Rule 1403. Site improvements, including grading, paving/concrete pour, and utility installation would take approximately six months. Grading activities could involve up to 90,000 cubic yards of soil export associated with up to two stories of subterranean parking, resulting in up to 288 truck trips per day. Building construction would occur over an approximately four- year period and would overlap with some site improvements (e.g., paving/concrete pour, utilities). Paving and concrete activities over an approximately 20-day period would require up to 445 truck deliveries per day for materials. Architectural coatings would be applied as buildings are completed, over an approximately eight-month period. An estimate of maximum daily construction emissions for Phase 1 is provided in Table 5.2-7. As shown in this table, construction activities associated with the project would exceed SCAQMD's regional significance thresholds for NO_x during grading and paving activities but would not exceed the SCAQMD thresholds during vertical building construction.

[4]Modeling assumes up to 5 percent of demolished materials contain asbestos and/or lead-based paint and would be taken to the Azusa Land Reclamation Facility.

Table 5.2-7
Maximum Daily Construction Regional Emissions, Phase 1
(in pounds per day)

Construction Phase	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2014						
Demolition	8	58	34	<1	6	3
Grading	15	142	87	<1	13	7
Utilities	4	34	15	<1	1	1
Paving/Concrete	22	210	143	<1	18	9
Building Construction	15	90	81	<1	12	5
Maximum Daily Emissions 2014	42	335	240	1	31	15
2015						
Building Construction	14	82	77	<1	12	4
2016						
Building Construction	13	75	73	<1	11	4
2017						
Building Construction	12	69	70	<1	11	4
Architectural Coatings	33	3	6	<1	2	<1
Maximum Daily Emissions 2017	45	72	76	<1	13	4
2018						
Building Construction	12	63	67	<1	11	3
Architectural Coatings	33	2	6	<1	2	<1
Maximum Daily Emissions 2018	44	66	73	<1	12	3
Construction Emissions Summary Phase 1						
Maximum Daily Emissions – Phase 1	45	335	240	1	31	15
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Significant?	No	**Yes**	No	No	No	No

Source: CalEEMod, Version 2011.1.1. Totals may not total to 100 percent due to rounding.
Notes:
Emissions that exceed SCAQMD Thresholds are underlined.
Construction phasing and equipment is based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
Modeling corrected for an error in CalEEMod that calculates PM_{10} fugitive dust from hauling over the entire haul duration to occur on one day.
Assumes overlap of site improvement phases, building construction, and architectural coatings based on the schedule provided by the application (see Appendix C).
PM_{10} and $PM_{2.5}$ fugitive dust emissions assume application of Rule 403, which includes watering exposed surfaces at least two times daily, managing haul road dust by watering two times daily, street sweeping, and restricting speeds onsite to 15 miles per hour.

Construction Phase Regional Emissions: Phase 2

Phase 2 would commence in March 2017 and involve the demolition of the two- to three-story, 311,452-square-foot industrial TowerJazz building, the SCE substation, and associated facilities and construction of the remaining 564 residential units and 1.02 acre park onsite. Demolition would take place over an approximately four-month period and require approximately 58 truck trips for removal of materials.[5] Demolition and removal of asbestos-containing materials would be conducted in accordance with SCAQMD Rule 1403. Site improvements, including grading, paving/concrete pour, and utility installation, would take approximately six months. Soil remediation would require excavation and removal of 26,000 cubic yards of soil for reclamation. Grading activities could involve an additional 100,000 cubic yards of soil export

[5]Modeling assumes up to 5 percent of demolished materials contain asbestos and/or lead-based paint and would be taken to the Azusa Land Reclamation Facility.

associated with up to two stories of subterranean parking. Grading and excavation of soil would result in up to 8,063 truckloads of soil export and up to 343 truck trips per day. Building construction would occur over an approximately four- year period and would overlap with some site improvements (e.g., paving/concrete pour, utilities). Paving and concrete activities over an approximately 20-day period would require up to 445 truck deliveries per day for materials. Architectural coatings would be applied as buildings are completed, over an approximately 6.4-month period. An estimate of maximum daily construction emissions for Phase 2 is provided in Table 5.2-8. As shown in this table, construction activities associated with the project would exceed SCAQMD's regional significance thresholds for NO_x during grading and paving activities but would not exceed the SCAQMD thresholds during vertical building construction.

Table 5.2-8
Maximum Daily Construction Regional Emissions, Phase 2
(in pounds per day)

Construction Phase	*VOC*	*NO_X*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
2017						
Demolition	6	44	32	<1	6	2
Grading	16	154	96	<1	17	8
Utilities	4	26	13	<1	1	1
Paving/Concrete	18	160	120	<1	16	7
Maximum Daily Emissions 2017	21	186	133	1	18	9
2018						
Building Construction	11	61	62	<1	9	3
Paving/Concrete	16	148	114	<1	15	5
Maximum Daily Emissions 2018	27	209	176	1	24	8
2019						
Building Construction	10	56	60	<1	9	3
2020						
Building Construction	10	51	58	<1	9	2
2021						
Building Construction	9	47	56	<1	9	2
Architectural Coating	32	2	5	<1	1	<1
Maximum Daily Emissions 2021	41	49	61	<1	10	2
Construction Emissions Summary Phase 2						
Maximum Daily Emissions – Phase 2	41	209	176	1	24	9
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Significant?	No	**Yes**	No	No	No	No

Source: CalEEMod, Version 2011.1.1. Totals may not total to 100 percent due to rounding.
Notes:
Emissions that exceed SCAQMD Thresholds are underlined.
Construction phasing and equipment is based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
Modeling corrected for an error in CalEEMod that calculates PM_{10} fugitive dust from hauling over the entire haul duration to occur on one day.
Assumes overlap of site improvement phases, building construction, and architectural coatings based on the schedule provided by the application (see Appendix C).
PM_{10} and $PM_{2.5}$ fugitive dust emissions assume application of Rule 403, which includes watering exposed surfaces at least two times daily, managing haul road dust by watering two times daily, street sweeping, and restricting speeds onsite to 15 miles per hour.

Construction Phase Regional Emissions: Summary

Construction emissions associated with Phase 1 and Phase 2 are described above. Based on the preliminary construction schedule, Phase 2 construction activities could overlap with Phase 1. A summary of the worst-case construction emissions from Phase 1 and Phase 2 and potential overlap of these phases is shown in Table 5.2-9.

Table 5.2-9
Maximum Daily Construction Regional Emissions, Summary
(in pounds per day)

Construction Phase	*VOC*	*NO_X*	*CO*	*SO_2*	*PM_{10}*	*$PM_{2.5}$*
Maximum Daily Emissions – Phase 1	45	**335**	240	1	31	**15**
Maximum Daily Emissions – Phase 2	41	209	176	1	24	9
2017 Overlap – Phase 1 + Phase 2						
Phase 1 Worst Case Emissions	45	72	76	<1	13	4
Phase 2 Worst Case Emissions	21	186	133	<1	18	9
Maximum Daily Emissions Phase 1 + Phase 2 2017	66	258	210	1	30	13
2018 Overlap – Phase 1 + Phase 2						
Phase 1 Worst Case Emissions	44	66	73	<1	12	3
Phase 2 Worst Case Emissions	27	209	176	1	24	8
Maximum Daily Emissions Phase 1 + Phase 2 2017	**72**	275	**249**	**1**	**37**	12
Construction Emissions Summary						
Phase 1 or Phase 2 Worst Case Day	72	335	249	1	37	15
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Significant?	No	**Yes**	No	No	No	No

Source: CalEEMod, Version 2011.1.1. Totals may not total to 100 percent due to rounding.
Notes:
The highest emissions generated during the construction of the proposed project are **bolded.** Emissions that exceed SCAQMD Thresholds are underlined.
Construction phasing and equipment is based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
Modeling corrected for an error in CalEEMod that calculates PM_{10} fugitive dust from hauling over the entire haul duration to occur on one day.
Assumes overlap of site improvement phases, building construction, and architectural coatings based on the schedule provided by the application (see Appendix C).
PM_{10} and $PM_{2.5}$ fugitive dust emissions assume application of Rule 403, which includes watering exposed surfaces at least two times daily, managing haul road dust by watering two times daily, street sweeping, and restricting speeds onsite to 15 miles per hour.

As shown in Tables 5.2-7 through 5.2-9, construction activities associated with the project would exceed SCAQMD's regional significance thresholds for NO_x during site preparation activities (year 2014 for Phase 1 and year 2017 and 2018 for Phase 2) and when construction activities of various phases overlap (year 2017 and 2018). Off-road construction equipment and on-road haul trucks for demolition, soil export, and construction materials are the primary source of NO_x emissions. Therefore, of the eight years of construction, project-related construction activities would only exceed SCAQMD's threshold for three of those years as significant off-road equipment use and haul trucks are not necessary during vertical building construction. Emissions of NO_x are precursors to the formation of O_3. In addition, NO_x is a precursor to the formation of particulate matter (PM_{10} and $PM_{2.5}$). Consequently, emissions of NO_x that exceed the SCAQMD regional significance thresholds would contribute to the O_3, NO_2, and particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation of the SoCAB under the national and California AAQS. Consequently, the project would significantly contribute to the nonattainment designations of the SoCAB.

IMPACT 5.2-3: ***LAND USES ASSOCIATED WITH BUILDOUT OF THE UPTOWN NEWPORT PROJECT WOULD NOT GENERATE A SUBSTANTIAL INCREASE IN CRITERIA AIR POLLUTANT EMISSIONS THAT EXCEED SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT'S REGIONAL SIGNIFICANCE THRESHOLDS OR SIGNIFICANTLY CONTRIBUTE TO THE NONATTAINMENT DESIGNATIONS OF THE SOUTH COAST AIR BASIN. [THRESHOLDS AQ-2 AND AQ-3]***

Impact Analysis: Buildout of the Uptown Newport project would result in direct and indirect criteria air pollutant emissions from transportation, energy (e.g., natural gas use), and area sources (e.g., gas fireplaces, aerosols, and landscaping equipment). Transportation sources of criteria air pollutant emission are based on the traffic impact analysis conducted by Kimley-Horn Associates. Area and energy sources for the existing TowerJazz facility are based on the 2011 emissions report submitted to SCAQMD. All other criteria air pollutant emissions were modeled using CalEEMod. The results of the criteria air pollutant modeling for the Uptown Newport project are included in Tables 5.2-10 through 5.2-12 for Phase 1 emissions, Phase 2 emissions, and total emissions, respectively.

Operational Phase Regional Emissions: Phase 1

Buildout of Phase 1 of the Uptown Newport project is forecast to occur by 2018. The existing 126,675-square-foot Half Dome Building would cease to operate. Based on traffic counts conducted by Kimley-Horn Associates, the existing land use generates 270 average daily trips. The proposed project would result in operation of 680 residential units, 11,500 square feet of retail land uses, and a 1.03-acre park. These land uses would generate a total of 5,282 average daily vehicle trips, for a net increase of 5,012 average daily vehicle trips. Table 5.2-10 shows the criteria air pollutant emissions generated at buildout of Phase 1 of the proposed project. As shown in this table, the project would generate an increase in criteria air pollutant emissions, but emissions would not exceed the SCAQMD's regional significance thresholds. Therefore, criteria air pollutant emissions generated by Phase 1 of the proposed project would not cumulatively contribute to nonattainment designations of the SoCAB.

Table 5.2-10
Maximum Daily Operational Phase Regional Emissions, Phase 1
(in pounds per day)

Phase	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Existing: Half Dome Building						
Area	3	0	0	0	0	0
Energy	<1	<1	<1	0	<1	<1
Transportation	1	1	10	<1	3	<1
Total Half Dome Building	4	1	10	<1	3	<1
Phase 1						
Area	18	1	57	0	1	1
Energy	<1	3	1	<1	<1	<1
Transportation	17	15	148	<1	42	2
Total Phase 1	36	18	206	<1	44	3
Net Change Phase 1						
Area	15	1	57	0	1	1
Energy	<1	2	1	<1	<1	<1
Transportation	16	14	138	<1	39	2
Net Change	**31**	**17**	**196**	**<1**	**41**	**3**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2011.1.1. Based on highest winter or summer emissions. Totals may not add to 100 percent due to rounding.

Operational Phase Regional Emissions: Phase 2

Buildout of Phase 2 of the Uptown Newport project is projected to occur by 2021. The existing 311,452-square-foot TowerJazz building would cease to operate. Based on traffic counts conducted by Kimley-Horn Associated, the TowerJazz facility generates 747 average daily trips. Onsite emissions (area and energy) generated by the TowerJazz facility are based on emissions reported to SCAQMD for year 2011. Phase 2 of the Uptown Newport project would result in operation of an additional 564 residential units and a 1.02-acre park. These land uses would generate an additional 3,751 average daily vehicle trips, for a net increase of 3,004 average daily vehicle trips in Phase 2. Table 5.2-11 shows the criteria air pollutant emissions generated at buildout of Phase 2 of the proposed project. As shown in this table, the project would generate a net decrease in VOCs, NO_x, SO_x, PM_{10}, and $PM_{2.5}$ emissions and a net increase in CO. However, CO emissions would not exceed the SCAQMD's regional significance thresholds. Therefore, criteria air pollutant emissions generated by Phase 2 of the proposed project would not cumulatively contribute to nonattainment designations of the SoCAB.

Table 5.2-11
Maximum Daily Operational Phase Regional Emissions, Phase 2
(in pounds per day)

Phase	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Existing: TowerJazz Facility						
Area	42	24	49	1	28	27
Energy	—	—	—	—	—	—
Transportation	3	2	24	<1	9	<1
Total TowerJazz Facility	45	26	72	1	37	27
Phase 2						
Area	15	1	47	0	1	1
Energy	<1	2	1	<1	<1	<1
Transportation	11	8	92	<1	32	1
Total Phase 2	26	11	140	<1	33	2
Net Change Phase 2						
Area	-27	-24	-2	-1	-27	-26
Energy	<1	2	1	<1	<1	<1
Transportation	8	6	68	<1	23	1
Net Change	**-18**	**-16**	**68**	**-1**	**-4**	**-25**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Source: CalEEMod Version 2011.1.1 and the TowerJazz 2011 SCAQMD Emissions Report.
Notes:
Based on highest winter or summer emissions. Totals may not add to 100 percent due to rounding.
Based on information provided by the applicant's engineer, the existing TowerJazz facility uses 124,000,000 kwh of electricity per year (requiring the SCE substation), 240,000,000 KBtu per year, and 516,000,000 gallons of water per year.
Natural gas use (energy) is included as an area source for existing land uses based on the SCAQMD emissions report for the TowerJazz facility.

Operational Phase Regional Emissions: Total

A summary of the existing, Phase 1, and Phase 2 criteria air pollutant emissions is shown in Table 5.2-12. As shown, operation of the Uptown Newport project would generate fewer SO_x and $PM_{2.5}$ emissions than existing land uses onsite and a slight increase in VOC, NO_x, CO, and PM_{10} emissions. Operation of Uptown Newport project would generate an increase in transportation emissions, which would be offset by a decrease in area/energy emissions when the TowerJazz facility is closed. The project would not generate a net increase in air pollutant emissions that exceed SCAQMD's regional significance thresholds. Therefore, criteria air pollutant emissions generated by the proposed project would not cumulatively contribute to nonattainment designations of the SoCAB.

Table 5.2-12
Maximum Daily Operational Phase Regional Emissions, Total
(in pounds per day)

Phase	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Existing						
Half Dome Building	4	1	10	<1	3	<1
TowerJazz Facility	45	26	72	1	37	27
Total Existing	49	28	83	1	40	27
Uptown Newport						
Phase 1	36	18	206	1	44	3
Phase 2	26	11	140	<1	33	2
Total Uptown Newport	62	29	346	1	77	5
Net Change						
Area	-30	-24	-2	-1	-27	-26
Energy	<1	1	1	0	<1	<1
Transportation	25	20	206	1	63	2
Net Change	**13**	**1**	**264**	**-1**	**37**	**-22**
SCAQMD Regional Threshold	55	55	550	150	150	55
Significant?	No	No	No	No	No	No

Sources: CalEEMod Version 2011.1.1 and the TowerJazz facility 2011 SCAQMD Emissions Report.
Based on highest winter or summer emissions. Totals may not add to 100 percent due to rounding.

IMPACT 5.2-4: CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE UPTOWN NEWPORT PROJECT COULD EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS OF $PM_{2.5}$. [THRESHOLD AQ-4]

Impact Analysis: The proposed project could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to elevated levels. Unlike the mass of construction emissions shown in the regional emissions analysis in Tables 5.2-7 through 5.2-9, described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or $\mu g/m^3$) and can be correlated to potential health effects. Health risk assessment is based on risk accumulated over a 70-year lifetime. Given the relatively short-term construction schedule for activities (8 years compared to 70 years) and distance to the nearest sensitive land uses, the proposed project would not result in a long-term (i.e., 70 years) substantial source of TAC emissions. Based on this, SCAQMD does not require a risk assessment for short-term emissions generated by diesel exhaust from construction equipment. Therefore, project-related diesel particulate matter impacts during construction would not be significant. LSTs are the amount of project-related emissions at which localized concentrations (ppm or $\mu g/m^3$) could exceed the ambient air quality standards for criteria air pollutants for which the SoCAB is designated nonattainment. LSTs are based on the project site size and distance to the nearest sensitive receptor. Thresholds are based on the California AAQS, which are the most stringent AAQS, established to provide a margin of safety in the protection of the public health and welfare. They are designed to protect sensitive receptors most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise.

Localized Construction Analysis

Onsite construction emissions generated during Phase 1 for years 2014 through 2016 are shown in Table 5.2-13. Between 2017 and 2018, several of the residential buildings in Phase 1 would be occupied. In addition, construction of Phase 1 would overlap with construction of Phase 2. Table 5.2-14 shows onsite emissions between 2017 and 2021. The tables show that maximum daily construction emissions would exceed the LSTs for $PM_{2.5}$ when building construction activities in Phase 1 overlap with site improvement construction activities in Phase 2 and some residential buildings in Phase 1 are occupied. Construction equipment exhaust combined with fugitive particulate matter emissions has the potential to expose sensitive receptors to substantial concentrations of $PM_{2.5}$.

Table 5.2-13
Maximum Daily Onsite Construction Localized Emissions, Phase 1 (Portion)

Source	Pollutants			
	NO_X	CO	PM_{10}	$PM_{2.5}$
2014 Onsite				
Demolition Phase 1	50	26	4.6	2.5
Grading Phase 1	46	21	5.4	3.2
Utilities Phase 1	34	14	1.3	1.3
Paving/Concrete Phase 1	50	28	3.0	3.0
Building Construction Phase 1	76	45	3.7	3.7
Maximum Daily Emissions 2014	160	87	7.9	7.9
2015 Onsite				
Building Construction Phase 1	70	43	3.3	3.3
2016 Onsite				
Building Construction Phase 1	64	41	2.7	2.7
SCAQMD LST Phase 1	**175**	**1,461**	**44.1**	**13.4**
Potentially Significant?	**No**	**No**	**No**	**No**

Source: CalEEMod Version 2011.1.1., SCAQMD 2003, and SCAQMD 2006.
Notes:
Based on receptors in SRA 20. Totals may not add up to 100 percent due to rounding.
Phase 1 Construction LSTs are based on 4 acres disturbed per day with sensitive land uses at 260 feet (79 meters) for PM_{10} and $PM_{2.5}$ and non-sensitive land uses within 82 feet (25 meters) for CO and NO_2. Note that during overlap of Phase 1 and Phase 2, a portion of Phase 1 residential buildings are assumed to be occupied and analyzed based on the LSTs for sensitive receptors within 25 meters for PM_{10} and PM_{25} (see Table 5.2-14).
Construction phasing and equipment is based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
Modeling corrected for an error in CalEEMod that calculates PM_{10} fugitive dust from hauling over the entire haul duration to occur on one day.
Assumes overlap of site improvement phases, building construction, and architectural coatings based on the schedule provided by the application (see Appendix C).
PM_{10} and $PM_{2.5}$ fugitive dust emissions assume application of Rule 403, which includes watering exposed surfaces at least two times daily, managing haul road dust by watering two times daily, street sweeping, and restricting speeds onsite to 15 miles per hour.

Table 5.2-14
Maximum Daily Onsite Construction Localized Emissions, Phase 1 (Portion) and Phase 2

Source	Pollutants			
	NO_X	CO	PM_{10}	$PM_{2.5}$
2017 Onsite				
Building Construction Phase 1	58	41	2.7	2.7
Architectural Coatings Phase 1	2	2	0.2	0.2
Total Building Construction + Coatings Phase 1	60	43	2.9	**2.9**
Demolition Phase 2	36	25	4.4	1.7
Grading Phase 2	36	17	5.0	2.8
Utilities Phase 2	25	12	0.9	0.9
Grading + Trenching Phase 2	61	30	5.9	3.7
Paving/Concrete Phase 2	38	27	2.2	2.2
Utilities + Paving/Concrete Phase 2	99	57	8.2	**6.0**
Maximum Daily Emissions 2017	160	99	11.0	**8.9**
2018				
Building Construction Phase 1	53	40	2.4	2.4
Architectural Coatings Phase 1	2	2	0.2	0.2
Total Building Construction + Coatings Phase 1	55	42	2.6	2.6
Paving/Concrete Phase 2	35	27	2.0	2.0
Building Construction Phase 2	53	40	2.4	2.4
Building Construction + Paving Phase 2	88	67	4.4	4.4
Maximum Daily Emissions 2018	143	109	7.0	7.0
2019				
Building Construction	49	39	2.2	2.2
2020				
Building Construction	44	39	1.9	1.9
2021				
Building Construction	40	38	1.7	1.7
Architectural Coating	2	2	0.1	0.1
Maximum Daily Emissions 2021	42	40	1.8	1.8
SCAQMD LST Phase 2 & Overlap of Phase 1 + Phase 2	**175**	**1,461**	**11.7**	**7.7**
Potentially Significant?	**No**	**No**	**No**	**Yes**

Sources: CalEEMod Version 2011.1.1., SCAQMD 2003, and SCAQMD 2006.
Notes:
The highest emissions generated during the construction of the proposed project are **bolded for $PM_{2.5}$**. Emissions that exceed SCAQMD Thresholds are underlined.
Based on receptors in SRA 20. Totals may not add up to 100 percent due to rounding.
Phase 1 Construction LSTs are based on 4 acres disturbed per day with sensitive land uses at 260 feet (79 meters) for PM_{10} and $PM_{2.5}$ and non-sensitive land uses within 82 feet (25 meters) for CO and NO_2 (see Table 5.2-13). Note, during overlap of Phase 1 and Phase 2, a portion of Phase 1 residential buildings are assumed to be occupied and analyzed based on the LSTs for sensitive receptors within 25 meters for PM_{10} and PM_{25}
Phase 2 Construction LSTs are based on 4 acres disturbed per day with sensitive land uses within 82 feet (25 meters) for PM_{10} and $PM_{2.5}$ and non-sensitive land uses within 82 feet (25 meters) for CO and NO_2.
Construction phasing and equipment is based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
Modeling corrected for an error in CalEEMod that calculates PM_{10} fugitive dust from hauling over the entire haul duration to occur on one day.
Assumes overlap of site improvement phases, building construction, and architectural coatings based on the schedule provided by the application (see Appendix C).
PM_{10} and $PM_{2.5}$ fugitive dust emissions assume application of Rule 403, which includes watering exposed surfaces at least two times daily, managing haul road dust by watering two times daily, street sweeping, and restricting speeds onsite to 15 miles per hour.

IMPACT 5.2-5: OPERATION OF THE PROPOSED UPTOWN NEWPORT PROJECT WOULD NOT EXPOSE OFFSITE SENSITIVE RECEPTORS TO SUBSTANTIAL CONCENTRATIONS OF AIR POLLUTANTS. [THRESHOLD AQ-4]

Impact Analysis: Operation of the Uptown Newport project would not generate substantial quantities of onsite, stationary sources of emissions. In addition, demolition of the TowerJazz facility in Phase 2 would result in removal of a large stationary source, resulting in a reduction in air pollutant emissions onsite. Land uses that have the potential to generate substantial stationary sources of emissions that would require a permit from SCAQMD include industrial land uses, such as chemical processing, and warehousing operations where substantial truck idling could occur onsite. Operation of the residential/mixed-use buildings and park would include occasional use of landscaping equipment and natural gas consumption for heating. Air pollutant emissions generated from these activities are nominal, and no significant impact would occur.

CO Hotspot Analysis

Areas of vehicle congestion have the potential to create pockets of CO called hot spots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm. At the time of the 1993 Handbook, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined. In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hot spot analysis conducted for the attainment by SCAQMD for busiest intersections in Los Angeles during the peak morning and afternoon periods plan did not predict a violation of CO standards. [6] As identified in SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2011). The proposed project would not produce the volume of traffic required to generate a CO hotspot. Therefore, CO hotspots are not an environmental impact of concern for the proposed project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

IMPACT 5.2-6: THE PROJECT WOULD NOT EXPOSE SENSITIVE LAND USES TO SUBSTANTIAL CONCENTRATIONS OF TOXIC AIR CONTAMINANTS. [THRESHOLD AQ-4]

Impact Analysis: A project would normally have a significant effect on the environment if it would expose onsite sensitive receptors (new residents) to substantial pollutant concentrations emitted from offsite sources. Recent air pollution studies have shown an association between proximity to major air pollution sources and a variety of health effects. Because sensitive land uses are outside CARB jurisdiction, CARB established the *Air Quality and Land Use Handbook: A Community Health Perspective* in May 2005 to address the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed as a tool for assessing compatibility and associated health risks when placing sensitive receptors near existing pollution sources. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance

[6] The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

separations. CARB's recommendations on the siting of new sensitive land uses were developed from a compilation of recent studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies is that close proximity to air pollution sources substantially increases exposure and the potential for adverse health effects relative to the existing background concentrations in the air basin. However, the impact of air pollution from these sources is on a gradient that at some point becomes indistinguishable from the regional air pollution problem.

An HRA was prepared for the Uptown Newport project to identify potential cancer and noncancer risks to persons residing at the project site, using the ISCST3 model. Cancer and noncancer risks were based on sources within a 1,000-foot radius of the site. Emissions from the existing TowerJazz facility were included for impacts to Phase 1 residents. However, this facility would cease to operate once construction of Phase 2 commences. The results of the HRA indicate that the incremental risk would not exceed SCAQMD's thresholds. Air quality impacts to onsite sensitive receptors would be less than significant.

Table 5.2-15
Health Risk Assessment

	Cancer	*Noncancer*
Phase 1	2.6 in one million	<1
Phase 2	0.5 in one million	<1
SCAQMD TAC Threshold	10 in one million	1
Significant?	No	No

Source: US EPA ISCST3.

IMPACT 5.2-7: THE UPTOWN NEWPORT PROJECT WOULD NOT EXPOSE A SUBSTANTIAL NUMBER OF PEOPLE TO NUISANCE ODORS. [THRESHOLD AQ-5]

Impact Analysis: The threshold for odor is if a project creates an odor nuisance pursuant to SCAQMD Rule 402, Nuisance, which states:

> A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

During construction activities, emissions from off-road equipment, such as diesel exhaust, may generate some odors; however, these would be low in concentration, temporary, and not expected to affect a substantial number of people.

No substantial long-term odors would be generated by the proposed residential mixed-use project. Restaurants within the retail component of Phase 1 could generate odors, but such odors would not be considered objectionable and would be required to comply with Rule 403. The project would also not expose proposed land uses to substantial odors from adjacent land uses. Adjacent land uses include restaurants and industrial uses. The TowerJazz facility is not the type of industrial facility that generates objectionable odors, and no nuisance odors were observed during site visits. Adjacent land uses are also subject to the restrictions of SCAQMD Rule 403. Consequently, the proposed project would not expose a substantial number of people to objectionable odor impacts.

5.2.4 Cumulative Impacts

In accordance with SCAQMD's methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment contributes to the cumulative impact. Cumulative projects within the local area include new development and general growth within the project area. The greatest source of emissions within the SoCAB is mobile sources. Due to the extent of the area potentially impacted from cumulative project emissions (i.e., the SoCAB), SCAQMD considers a project cumulatively significant when project-related emissions exceed the SCAQMD regional emissions thresholds shown in Table 5.2-4. No significant cumulative impacts were identified with regard to CO hotspots.

Construction

The SoCAB is designated nonattainment for O_3, $PM_{2.5}$, PM_{10}, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO_2 under the California AAQS.[7] Construction of cumulative projects will further degrade the regional and local air quality. Air quality will be temporarily impacted during construction activities. Implementation of mitigation measures for related projects would reduce cumulative impacts. Project-related construction emissions would exceed the SCAQMD significance thresholds for NO_x. Consequently, the project's contribution to cumulative air quality impacts would be cumulatively considerable and therefore significant.

Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values is not considered by SCAQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. Operation of the project would not result in emissions in excess of the SCAQMD regional emissions thresholds. Furthermore, the proposed project would be consistent with regional plans to reduce air pollution. Therefore, the project's air pollutant emissions would not be cumulatively considerable and are less than significant.

5.2.5 Existing Regulations and Standard Conditions

Regulations

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1113: Architectural Coatings
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD Rule 1186: Street Sweeping

[7] CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards during the period from 2004 to 2007. However, the EPA has not yet approved this request.

- CARB Rule 2480 (13 CCR 2480): Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools: limits nonessential idling for commercial trucks and school buses within 100 feet of a school.

- CARB Rule 2485(13 CCR 2485): Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling: limits nonessential idling to five minutes or less for commercial trucks.

- CARB Rule 2449(13 CCR 2449): In-Use Off-Road Diesel Idling Restricts: limits nonessential idling to five minutes or less for diesel-powered off-road equipment.

- Building Energy Efficiency Standards (Title 24)

- Appliance Energy Efficiency Standards (Title 20)

- Motor Vehicle Standards (AB 1493)

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to air quality that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process..

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.2-1, 5.2-3, 5.2-5, 5.2-6, and 5.2-7.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.2-2 Short-term construction emissions generated by the Uptown Newport project would result in NO_x emissions that exceed SCAQMD's regional significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.

- Impact 5.2-4 Construction activities associated with the Uptown Newport Project could expose sensitive receptors to substantial pollutant concentrations of $PM_{2.5}$.

5.2.7 Mitigation Measures

Impact 5.2-2

2-1 The construction contractor shall use construction equipment rated by the United States Environmental Protection Agency as having Tier 3 or higher exhaust emission limits for equipment over 50 horsepower that are onsite for more than 5 days. Tier 3 engines between 50 and 750 horsepower are available for 2006 to 2008 model years. After January 1, 2015, equipment over 50 horsepower that are onsite for more than 5 days shall be equipment meeting the Tier 4 standards, if available. A list of construction equipment by type and model year shall be maintained by the construction contractor onsite. A copy of each unit's certified Tier specification shall be provided at the time of mobilization of each applicable unit of equipment. Prior to construction, the City of Newport Beach shall ensure that all demolition and grading

plans clearly show the requirement for United States Environmental Protection Agency Tier 3 or higher emissions standards for construction equipment over 50 horsepower during ground-disturbing activities. In addition, equipment shall properly service and maintain construction equipment in accordance with the manufacturer's recommendations. Construction contractors shall also ensure that all nonessential idling of construction equipment is restricted to five minutes or less in compliance with California Air Resources Board's Rule 2449.

2-2 The construction contractor shall implement the following measures or provide evidence to the City of Newport Beach that implementation would not be feasible:

- If electricity is not available onsite, generators, welders, and air compressors shall use alternative fuels (i.e., electric, natural gas, propane, solar).
- Construction parking shall be configured to minimize traffic interference.
- Construction trucks shall be routed away from congested streets and sensitive receptors.
- Construction activities that affect traffic flow on the arterial system shall be scheduled to off-peak hours to the extent practicable.
- Temporary traffic controls, such as a flag person(s), shall be provided, where necessary, to maintain smooth traffic flow.
- Large shipments of construction materials and/or equipment requiring use of heavy-heavy duty tractor trailers (e.g., 53-foot truck) shall use EPA-certified SmartWay trucks.

2-3 Prior to issuance of a grading permit, the construction contractor shall provide a statement to the City of Newport Beach that the construction contractor shall support and encourage ridesharing and transit incentives for the construction crew, such as carpools, shuttle vans, transit passes, or secured bicycle parking for construction workers.

Impact 5.2-4

Mitigation Measures 2-1 through 2-3 applied to reduce regional criteria air pollutants of NO_x would assist in reducing localized air pollutant impacts of $PM_{2.5}$.

2-4 The construction contractor shall prepare a dust control plan and implement the following measures during ground-disturbing activities for fugitive dust control in addition to South Coast Air Quality Management District Rule 403 to reduce particulate matter emissions. The City of Newport Beach shall verify compliance that these measures have been implemented during normal construction site inspections.

- During all grading activities, the construction contractor shall reestablish ground cover on the construction site through seeding and watering.
- During all construction activities, the construction contractor shall sweep streets with Rule 1186–compliant, PM_{10}-efficient vacuum units on a daily basis if silt is carried over to adjacent public thoroughfares or occurs as a result of hauling.

- During all construction activities, the construction contractor shall maintain a minimum 24-inch freeboard on trucks hauling dirt, sand, soil, or other loose materials, and tarp materials with a fabric cover or other cover that achieves the same amount of protection.

- During all construction activities, the construction contractor shall water exposed ground surfaces and disturbed areas a minimum of every three hours on the construction site and a minimum of three times per day. Recycled water should be used, if available.

- During site preparation, the construction contractor shall stabilize stockpiled materials. Stockpiles within 300 feet of occupied buildings shall not exceed 8-feet in height, must have a road bladed to the top to allow water truck access, or must have an operational water irrigation system that is capable of complete stockpile coverage.

- During all construction activities, the construction contractor shall limit onsite vehicle speeds on unpaved roads to no more than 15 miles per hour.

2-5 The construction contractor during Phase 2 activities shall adhere to one of the following if construction of Phase 1 overlaps with construction of Phase 2:

- The construction contractor shall install Level 2 Verified Diesel Emission Control Strategies (VDES) diesel particulate filters (DPF) on large off-road equipment that have engines rated 50 hp or greater during grading, utilities installation, paving, and concrete activities that overlap with Phase 1 building construction. A list of construction equipment by type and model year and type of DPF shall be maintained by the construction contractor onsite. Or

- Phase 2 site improvements (grading, utilities installation, paving, and concrete construction subphases) shall not overlap with Phase 1 building construction.

The City of Newport Beach shall verify compliance that one of these measures has been implemented during normal construction site inspections.

2-6 The construction contractor shall post a sign at the entrance to the construction site. The sign shall identify the designated contact person, telephone number, and email address for construction-related complaints. Upon receipt of a compliant, the complaint shall be investigated and corrective action shall be taken, if needed. The construction contractor shall file a report to the City of Newport Beach of the nature of the compliant and action taken to remedy the complaint within two working days. A log of the complaints and resolutions to the complaints shall be maintained onsite.

5.2.8 Level of Significance After Mitigation

Impact 5.2-2

Mitigation Measure 2-1 would reduce NO_x generated by exhaust. Table 5.2-16 shows construction emissions with adherence to Mitigation Measures 2-1 and 2-2. Use of newer construction equipment would reduce construction emissions onsite. However, onsite emissions in addition to offsite emissions generated by haul trucks would generate substantial quantities of NO_x and would continue to exceed SCAQMD's regional significance threshold during site preparation (year 2014 for Phase 1 and year 2017 and 2018 for Phase 2)

and when construction activities of various phases overlap (year 2017 and 2018). Off-road construction equipment and on-road haul trucks for demolition, soil export, and construction materials are the primary source of NO_x emissions. Therefore, of the eight years of construction, project-related construction activities would only exceed SCAQMD's threshold for three of those years as significant off-road equipment use and haul trucks are not necessary during vertical building construction. Therefore, Impact 5.2-2 would remain significant and unavoidable.

Table 5.2-16
Maximum Daily Construction Regional Emissions, Summary with Mitigation
(in pounds per day)

Construction Phase	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions – Phase 1	44	**275**	263	1	30	**14**
Maximum Daily Emissions – Phase 2	42	198	196	1	25	9
2017 Overlap – Phase 1 + Phase 2						
Phase 1 Worst Case Emissions	44	61	89	<1	13	4
Phase 2 Worst Case Emissions	20	173	149	<1	18	9
Maximum Daily Emissions Phase 1 + Phase 2 2017	65	234	238	1	31	14
2018 Overlap – Phase 1 + Phase 2						
Phase 1 Worst Case Emissions	44	59	86	<1	13	4
Phase 2 Worst Case Emissions	27	198	196	1	25	9
Maximum Daily Emissions Phase 1 + Phase 2 2017	**71**	257	**283**	**1**	**39**	13
Construction Emissions Summary						
Phase 1 or Phase 2 Worst Case Day	71	257	283	1	39	14
SCAQMD Regional Significance Threshold	75	100	550	150	150	55
Significant?	No	**Yes**	No	No	No	No

Source: CalEEMod, Version 2011.1.1.
Notes:
Totals may not add up to 100 percent due to rounding
Construction phasing and equipment is based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
Modeling corrected for an error in CalEEMod that calculates PM_{10} fugitive dust from hauling over the entire haul duration to occur on one day.
Assumes overlap of site improvement phases, building construction, and architectural coatings based on the schedule provided by the application (see Appendix C).
PM_{10} and $PM_{2.5}$ fugitive dust emissions assume application of Rule 403, which includes watering exposed surfaces at least two times daily, managing haul road dust by watering three times daily, street sweeping, and restricting speeds onsite to 15 miles per hour.
Includes use of Tier 3 construction equipment.

Impact 5.2-4

Mitigation Measures 2-4 through 2-5 would reduce particulate matter concentration generated from exhaust and fugitive dust during construction activities. Table 5.2-17 shows project-related construction emissions compared to SCAQMD's LSTs with adherence to Mitigation Measures 2-1 through 2-6. Mitigation Measure 2-1 would require use of newer construction equipment and Mitigation Measure 2-4 would require additional fugitive dust control measures to be implemented during ground-disturbing activities. Mitigation Measure 2-5 requires diesel particulate filters installed on equipment used for site improvements during Phase 2 or prohibits overlap of site improvements associated with Phase 2 during construction of Phase 1. As shown in the table, Mitigation Measures 2-1 through 2-6 would reduce localized construction emissions below the localized significance thresholds. Therefore, Impact 5.2-4 would be less than significant.

Table 5.2-17
Maximum Daily Onsite Construction Localized Emissions. Phase 1 and Phase 2 Overlap with Mitigation

Source	Pollutants			
	NO_X	CO	PM_{10}	$PM_{2.5}$
2017 Onsite				
Total Building Construction + Coatings Phase 1	**49**	**55**	**3.4**	**3.4**
Demolition Phase 2	37	38	3.6	1.3
Grading + Trenching Phase 2	47	47	**4.5**	**2.6**
Utilities + Paving/Concrete Phase 2	**50**	**55**	1.8	1.8
Maximum Daily Emissions 2017	100	111	**7.9**	**6.0**
2018				
Total Building Construction + Coatings Phase 1	49	55	3.3	3.3
Building Construction + Paving Phase 2	77	87	3.0	3.0
Maximum Daily Emissions 2018	**126**	**142**	6.3	6.3
SCAQMD LST Phase 2 & Overlap of Phase 1 + Phase 2	**175**	**1,461**	**11.7**	**7.7**
Potentially Significant?	**No**	**No**	**No**	**No**

Sources: CalEEMod Version 2011.1.1., SCAQMD 2003, and SCAQMD 2006.
Notes:
Based on receptors in SRA 20. Totals may not add up to 100 percent due to rounding.
Phase 1 Construction LSTs are based on 4 acres disturbed per day with sensitive land uses at 260 feet (79 meters) for PM_{10} and $PM_{2.5}$ and non-sensitive land uses within 82 feet (25 meters) for CO and NO_2 (see Table 5.2-13). Note that during overlap of Phase 1 and Phase 2, a portion of Phase 1 residential buildings are assumed to be occupied and analyzed based on the LSTs for sensitive receptors within 25 meters for PM_{10} and PM_{25}.
Phase 2 Construction LSTs are based on 4 acres disturbed per day with sensitive land uses within 82 feet (25 meters) for PM_{10} and $PM_{2.5}$ and non-sensitive land uses within 82 feet (25 meters) for CO and NO_2.
Construction phasing and equipment are based on the preliminary information provided by the applicant. Where specific information regarding project-related construction activities was not available, construction assumptions were based on CalEEMod defaults, which are based on construction surveys conducted by SCAQMD of construction equipment and phasing for comparable projects.
Modeling corrected for an error in CalEEMod that calculates PM_{10} fugitive dust from hauling over the entire haul duration to occur on one day.
Assumes overlap of site improvement phases, building construction, and architectural coatings based on the schedule provided by the application (see Appendix C).
PM_{10} and $PM_{2.5}$ fugitive dust emissions assume application of Rule 403, which includes watering exposed surfaces at least two times daily, managing haul road dust by watering three times daily, street sweeping, and restricting speeds onsite to 15 miles per hour.
Includes use of Tier 3 construction equipment (Mitigation Measure 2-1).
Site improvements associated with Phase 2 (grading, utilities, paving/concrete) calculated with installation of diesel particulate filters. Alternatively, site improvements (grading, utilities, paving/concrete) of Phase 1 could be scheduled to not overlap with Phase 1 construction.

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5.3 BIOLOGICAL RESOURCES

The analysis in this section is based in part on the following technical report(s):

- *Biological Technical Report, Uptown Newport Village, City of Newport Beach, Orange County, California,* Cadre Environmental, January 2012.

A complete copy of this study is included in Appendix E of this DEIR.

5.3.1 Environmental Setting

Applicable Plans and Regulations

Federal and State Regulations

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 (US Code, Title 16, §§ 1531 et seq.), as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. "Take" of endangered species is prohibited under Section 9 of the FESA. "Take," as defined under the FESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." Section 7 of the FESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions which may affect any endangered, threatened or proposed (for listing) species or critical habitat that may support the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened." Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Section 10 of the FESA provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA; US Code, Title 16, §§ 703–712) is the domestic law that affirms, or implements, the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA.

Clean Water Act, Section 404

The United States Army Corps of Engineers (Corps) regulates discharges of dredged or fill material into "waters of the United States"[1] (Including wetlands and non-wetland bodies of water that meet specific criteria) pursuant to Section 404 of the federal Clean Water Act (CWA; US Code, Title 33, §§ 1251 et seq.), a permit is required for any filling or dredging within waters of the United States. The permit review process entails an assessment of potential adverse impacts to Corps wetlands and jurisdictional waters, wherein the Corps may require mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with USFWS may be required. If there is potential for cultural resources to be present, Section 106 review may be required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act, Section 401 and 402

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include Corps Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the US Environmental Protection Agency (EPA) under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB. The City of Newport Beach is within the jurisdiction of the Santa Ana RWQCB (Region 8).

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires that a project proponent notify the California Department of Fish and Game (CDFG) of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFG may review a project and place conditions on the project as part of a Streambed Alteration Agreement (SAA). The conditions are intended to address potentially significant adverse impacts within CDFG's jurisdictional limits.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFG. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or Memorandum of Understanding. In addition, some sensitive mammals and birds are protected by the state as Fully Protected Species. California Species of Special Concern are species designated as vulnerable to extinction due to declining population

[1] "Waters of the United States," as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act, includes: all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes "navigable waters" which is defined at Section 502(7) of the Act as "waters of the United States including the territorial seas." Wetlands are defined under the CWA as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Wetlands include areas such as swamps, marshes, and bogs.

levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFG's California Natural Diversity Data Base (CNDDB) project, which maintains a database of known and recorded occurrences of sensitive species. Informally listed species are not protected per se, but warrant consideration in the preparation of biological resources assessments.

Regional Habitat Conservation Plan

The project site is within the plan area of the Orange County Central-Coastal Natural Communities Conservation Plan (NCCP). This regional habitat conservation plan has a plan area of 208,000 acres—covering much of central Orange County—and a reserve system of 37,380 acres, and it protects 39 covered species and 12 covered natural communities. The NCCP is managed by the Nature Reserve of Orange County, and the City of Newport Beach is a participating jurisdiction in the NCCP. Wildlife agencies have issued incidental take authorizations for covered species to participating agencies and entities.[2] The project site is not in a reserve designated under the NCCP, and there are no survey requirements for the project site pursuant to the NCCP.

Local Policies Protecting Habitats

Environmental Study Areas

The City of Newport Beach Local Coastal Plan designates 28 Environmental Study Areas (ESAs). Portions of ESAs within the Coastal Zone that contain sensitive or rare species are referred to as Environmentally Sensitive Habitat Areas (ESHAs). The California Coastal Act requires that ESHAs be protected against any significant disruption of habitat values. Only uses dependent on those resources are allowed within ESHAs and adjacent development must be sited and designed to prevent impacts that would significantly degrade the ESHA and must be compatible with the continuance of the ESHA.

Upper Newport Bay

Upper Newport Bay, one of few remaining estuaries in Southern California, is home to nearly 200 species of birds, including several endangered species, as well as numerous species of mammals, fish, and plants. It is an important stopover for migrating birds on the Pacific Flyway.

The water and lowland wetlands areas of Upper Newport Bay are protected as the Upper Newport Bay State Marine Park. An additional 140 acres of uplands next to the north and northwest shores of Upper Newport Bay were designated as the Upper Newport Bay Nature Preserve by the County of Orange in 2000.

Plant Communities/Habitat

The biological study for this project consisted of a literature review of information from the USFWS and CDFG, including the CDFG's California Natural Diversity Database, and a field reconnaissance survey of the project site by Ruben Ramirez of Cadre Environmental on November 28, 2011. During the reconnaissance survey, a plant inventory and wildlife inventory were conducted, and information obtained from the literature survey regarding potential use of the project site for wildlife movement was field checked.

[2] "Take" of a sensitive species includes killing, injuring, harassing, or pursuing individuals of that species, and changes to the habitat of a species that indirectly harm the species. "Incidental take" occurs accidentally in the course of another lawful activity, such as construction of a development project.

Plant Community

The project site is fully developed with industrial uses and is in an urban setting. Vegetation is limited to ornamental landscaping that covers about 4.3 acres, or 17 percent, of the project site. Approximately 3.7 acres, or 86 percent, of the vegetation onsite is within the Phase 1 portion of the project site.

Plants

Plant species in the ornamental vegetation include an understory of African daisies (*Gazania sp.*) and St. Augustine (*Stenotaphrum secundatum*). Scattered tree and shrub species include olive (*Olea europaea*), blue gum (*Eucalyptus globulus*), pine (*Pinus sp*.), king palms (*Archontophoenix Cunninghamiana*), magnolia (*Magnolia sp.*), Brazilian pepper tree (*Schinus terebinthifolius*), bottlebrush (*Callistemon sp*.), bird of paradise (*Strelitzia reginae*), cut-leaf philodendron (*Philodendron bipinnatifidum*), and weeping fig (*Ficus benjamina*).

Wildlife

The non-native ornamental vegetation provides limited habitat for wildlife. While a few species of birds may use the ornamental plantings for roosting and/or nesting, the majority of the study area does not provide suitable foraging or nesting/breeding habitat for common or sensitive wildlife species.

Amphibians: The common Baja California chorus frog (*Pseudacris hypochondriaca*) may occasional occur onsite in extensively irrigated ornamental landscaping. No other common amphibian species is expected to occur onsite.

Reptiles: The common Great Basin fence lizard (*Scleroporus occidentalis biseriatus*) may occasionally occur onsite; no other common reptile species is expected to occur on the site.

Birds, Including Raptors: The ornamental plantings onsite are suitable roosting and nesting habitat for several common bird species that have become naturalized to urban environments. Although no nests were documented within the study area during the reconnaissance survey, several common birds species were observed, including rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), house finch (*Carpodacus mexicanus*), and house sparrow (*Passer domesticus*).

No raptors or raptor nests were observed onsite. Larger trees onsite are potential roosting and habitat for common species, including the red-tailed hawk (*Buteo jamaicensis*) and American kestrel (*Falco sparveruis*). However, such species are unlikely to nest onsite due to industrial uses on the site and the proximity of Jamboree Road.

Sensitive Resources

Sensitive species and habitats are those that have been assigned a special status by federal, state, or local resource conservation agencies and organizations, mainly due to the species' declining or limited population sizes, usually resulting from habitat loss. Sensitive habitats are unique, of relatively limited distribution, or of particular value to wildlife. No sensitive habitats, plant species, or animal species were observed onsite.

Sensitive Bird and Bat Species

A list of sensitive animal and plant species occurring in the region was compiled from information from the CDFG—including the CNDDB—and from the USFWS and the California Native Plant Society. The potential

for 13 sensitive bird species and 2 sensitive bat species to occur onsite was evaluated based on whether suitable habitat for each species is available onsite. The larger eucalyptus trees onsite are suitable roosting and nesting habitat for Cooper's hawk (*Accipiter cooperii*), which is on the California Watch List. There is a row of large eucalyptus trees along the northeast boundary of the site of Phase 2 and a cluster of such trees in the southwest corner of the Phase 1 area. American peregrine falcon (*Falco peregrinus anatum*) is known to prey on bird species that were observed on the site, including mourning dove and rock dove; however, peregrine falcon rarely occurs in the project region. There is no suitable nesting habitat for peregrine falcon onsite. American peregrine falcon is a federal bird of conservation concern and a state fully protected species. There is no suitable foraging or breeding habitat onsite for any of the other 11 bird species and 2 bat species assessed. The entire potential occurrence assessment is included in the biological technical report, included as Appendix E to this DEIR.

Wildlife Movement Corridors

The project site is completely developed with and bordered by urban land uses and lacks native habitat onsite. Although the ornamental trees onsite are expected to be occasionally used by resident and migratory bird species for roosting and potentially for nesting, the site is not classified as a wildlife corridor.

Jurisdictional Waters and Wetlands

No waters of the United States, wetlands, or streambed or riparian habitats jurisdictional to the CDFG were observed onsite.

5.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

B-1 Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

B-2 Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

B-3 Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

B-4 Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

B-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: B-2, B-3, B-5, and B-6. These impacts will not be addressed in the following analysis.

5.3.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.3-1: DEVELOPMENT OF THE PROPOSED PROJECT WOULD NOT DIRECTLY IMPACT SENSITIVE SPECIES AND WOULD NOT INDIRECTLY IMPACT FEDERAL- OR STATE-LISTED ENDANGERED OR THREATENED SPECIES. [THRESHOLD B-1]

Impact Analysis:

Phase 1

No sensitive habitats, plant species, or animal species were observed onsite. The larger eucalyptus trees onsite are suitable roosting and nesting habitat for Cooper's hawk, which is on the California Watch List. American peregrine falcon—a federal bird of conservation concern and a state fully protected species—preys on bird species that were observed on the site, including mourning dove and rock dove. However, peregrine falcon rarely occurs in the project region, and no suitable nesting habitat for peregrine falcon is available onsite.

Approximately 3.7 acres of ornamental vegetation would be removed by development of Phase 1 of the project, including a cluster of eucalyptus trees in the southwest corner of the Phase 1 site that is suitable as Cooper's hawk habitat. The vegetation onsite is also habitat for common bird species—including mourning dove and rock dove—that American peregrine falcon is known to prey upon. No Cooper's hawks or peregrine falcons were observed onsite.

Phase 2

The project would remove all the vegetation on the Phase 2 portion of the site—approximately 0.6 acres. A row of large eucalyptus trees along the northeast boundary of the site of Phase 2 is suitable as Cooper's hawk habitat. No Cooper's hawks were observed onsite.

IMPACT 5.3-2 LOCAL AND REGIONAL PLANS AND POLICIES PROTECT HABITATS AND STATE- AND FEDERALLY LISTED PLANT AND ANIMAL SPECIES, BUT DO NOT SEPARATELY LIST ENDANGERED OR THREATENED SPECIES. PROJECT DEVELOPMENT WOULD NOT IMPACT SENSITIVE SPECIES LISTED IN LOCAL OR REGIONAL PLANS OR POLICIES.

Impact Analysis:

Phase 1

The regional plan for protection of sensitive species and habitats in central and coastal Orange County is the NCCP described above in Section 5.3.1. Local policies for protection of habitats and sensitive species include Environmental Study Areas (ESAs) and two protected areas in Upper Newport Bay: one state marine park and one County nature preserve. The project site is not in an ESA; the nearest such area to the site is

the San Diego Creek ESA about 0.6 miles to the south (Newport Beach 2006a). The project site is also not in either the Upper Newport Bay State Marine Park or the Upper Newport Bay Nature Preserve; each of those two areas is about 0.7 mile southwest of the site (Newport Beach 2006b). The NCCP, protected areas in Upper Newport Bay, and many of the 28 ESAs all protect habitat for State- and Federally-listed endangered and/or threatened species. However, none of these plans or policies pertaining to areas in the City of Newport Beach list endangered or threatened species separately from State or federal listings. Thus, project development would not adversely impact species listed as sensitive species in local or regional plans or policies.

Phase 2

The analysis for Phase 1 also applies to Phase 2.

IMPACT 5.3-3: THE PROPOSED PROJECT WOULD REMOVE HABITAT THAT COULD BE USED FOR NESTING BY MIGRATORY BIRDS. [THRESHOLD B-4]

Impact Analysis:

Phase 1

Trees and other vegetation onsite could be used for nesting by migratory birds protected under the Migratory Bird Treaty Act. Phase 1 of the project would remove all 3.7 acres of existing vegetation onsite.

Phase 2

Development of Phase 2 of the project would include removal of an estimated 0.6 acres of vegetation onsite that could be used by nesting migratory birds.

5.3.4 Cumulative Impacts

The NCCP provides a regional means of addressing impacts to the 39 species and 12 natural communities covered under the NCCP. Developers may obtain coverage for take of covered species by payment of a mitigation fee to the Nature Reserve of Orange County, the organization that manages the NCCP.

The City of Newport Beach identified 26 related projects, the great majority of which will redevelop land with existing land uses. Two of the projects, Newport Coast and Banning Ranch, are planned for development on vacant sites. (The Banning Ranch site includes some scattered uses such as oil production and storage for construction equipment.) The City of Newport Beach lies within three topographic quads: Newport Beach, Laguna Beach, and Tustin. Within those quads, 63 sensitive species are documented on the CNDDB. The Wildlife Habitats map of Orange County (prepared by the California Department of Forestry and Fire Prevention) shows that habitat types in or near the Newport Coast and Banning Ranch project sites include coastal sage, valley foothill riparian, mixed chaparral, and annual grassland (CAL FIRE 2004). In addition, the CNDDB lists occurrences of 3 sensitive natural communities in the region that could be classified within the valley foothill riparian habitat category: south coast live oak riparian forest, southern cottonwood willow riparian forest, and southern sycamore alder riparian woodland (CDFG 2012). One additional sensitive natural community documented in the region, valley needlegrass grassland, could be classified within the annual grassland habitat category.

Development of the Newport Coast and Banning Ranch projects could impact sensitive species directly and through habitat loss. Both sites are within the NCCP plan area, though neither is within reserves designated

by the NCCP. However, the Banning Ranch site is in an Existing Use area, in which the NCCP does not authorize incidental take due to development of coastal California gnatcatcher habitat. The Banning Ranch project would mitigate take of coastal California gnatcatcher through separate authorization by the USFWS requiring both onsite and offsite preservation and restoration of habitat (Bonterra Consulting 2011).

The UCI North Campus is across Jamboree Road from the project site. While most of the North Campus is open space, a small area is developed with a few academic and support facilities, an arboretum, and a child development center. The grassland community in the North Campus Area shows relatively low diversity and is vegetated mostly with non-native annual grasses such as wild oats, bromes, and hare barley, as well as ruderal (weedy) herbs and forbs, particularly mustard, fennel, and artichoke thistle (*Cynara cardunculus*). The area provides foraging and potential breeding habitat for various common mammals, birds, and reptiles. The San Joaquin Freshwater Marsh Reserve is immediately southeast of the UCI North Campus open space, approximately 875 feet southeast of the project site. The North Campus area is designated Mixed Use-Commercial in the UCI 2007 Long-Range Development Plan (LRDP). Permitted uses in this land use designation include facilities for office, research and development, and academic activities; commercial and retail space; conference facilities; university- and non-university-related residential facilities; support uses such as child care and recreation facilities; parking; and other related uses. The approved development program for North Campus under the 2007 LRDP includes 950,000 square feet of office and/or research and development space and 435 multi-family dwelling units. The North Campus site is not within a reserve designated by the NCCP, nor is it within an Existing Use area designated under the NCCP. Thus, the University of California is eligible to obtain take authorizations for NCCP-covered species by payment of a mitigation fee to the Nature Reserve of Orange County.

The proposed project would not combine with Banning Ranch, Newport Coast, or North Campus projects to result in cumulatively considerable impacts to biological resources.

5.3.5 Existing Regulations and Standard Conditions

Regulations

Federal

- Endangered Species Act, United States Code Title 42, Sections 9601 et seq.
- Migratory Bird Treaty Act (MBTA), United States Code, Title 16, Sections 703-712.

State

- Endangered Species Act, California Fish and Game Code, Section 2080

Regional

- Orange County Central-Coastal Natural Communities Conservation Plan

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to biological resources that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.3-1 and 5.3-2. This conclusion applies to both Phase 1 and Phase 2 of the project and to project-specific and cumulative impacts.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.3-3: The project would remove vegetation that could be used for nesting by migratory birds.

This conclusion applies to project-specific impacts for both Phases 1 and 2 of the project. Cumulative impacts to nesting birds would be less than significant.

5.3.7 Mitigation Measures

3-1 Prior to any proposed actions during the breeding season, January 31st through September 15th, the monitoring biologist shall conduct a pre-construction survey(s) to identify any active nests in and near the project area no more than three days prior to project initiation. If the biologist does not find any active nests that would be potentially impacted, the proposed action may proceed. Any active nests observed during the survey shall be mapped on a recent aerial photograph, including documentation of GPS coordinates. If the biologist finds an active nest within or adjacent to the action area and determines that the nest may be impacted, the biologist shall delineate an appropriate buffer zone around the nest using temporary plastic fencing or other suitable materials, such as barricade tape and traffic cones. The buffer zone shall range from a 300- to 500-foot radius at the discretion of the biologist. Only activities approved by the qualified biologist shall take place within the buffer zone until the nest is vacated. Once the nest is no longer active, the proposed action may proceed within the buffer zone.

5.3.8 Level of Significance After Mitigation

Impacts would be less than significant. This conclusion applies to both Phase 1 and Phase 2 of the project and to project-specific and cumulative impacts.

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5.4 CULTURAL RESOURCES

Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Uptown Newport project to impact cultural resources in the City of Newport Beach. The analysis in this section is based, in part, upon the following technical report:

- *Archaeological and Paleontological Assessment of the Uptown Newport Village Project, City of Newport Beach, Orange County, California,* Cogstone, January 2012

A complete copy of this study is included in Appendix F of this DEIR.

5.4.1 Environmental Setting

Study Methodology

The cultural resources assessment conducted by Cogstone involved two paleontological records searches. The first search was conducted by staff of the Natural History Museum of Los Angeles County (LACM) in 2011. Cogstone then conducted a search of the University of California at Berkeley online paleontology database on January 3, 2012. A literature review of paleontological specimens identified in Orange County was also conducted.

The assessment by Cogstone also involved an archaeological and historical records search at the South Central Coastal Information Center (SCCIC) of the California Historic Resources Inventory System. These searches involved a review of several inventories and registers, including the California Register of Historic Places. Additionally, historical maps and historical aerial photographs were consulted.

A sacred lands record search was requested by Cogstone staff from the Native American Heritage Commission (NAHC) in October 2011. NAHC responded that while there were no known sacred lands with the projects Area of Potential Effect boundaries, NAHC requested that Cogstone contact 16 Native American tribes or individuals for further information. Letters requesting information and containing maps and project information were sent to these 16 tribal contacts on November 14, 2011. One response was received from the Acjachemen tribe, stating that the area is sensitive in general. No other responses were received.

Natural Setting

California is divided into geomorphic provinces, which are distinctive, generally easy-to-recognize natural regions in which the geologic record, types of landforms, pattern of landscape features, and climate in all parts are similar. The project site is located in Orange County in the northern Peninsular Ranges Geomorphic Province. This province is composed of mountain ranges separated by northwest-trending valleys. The Peninsular Ranges Province is bound by the Transverse Range Province to the north and the Transverse Range and Colorado Desert to the east.

More specifically, the project site is in the northeastern portion of the City of Newport Beach, adjacent to the City of Irvine and approximately five miles from the Pacific Ocean. The 25-acre project site has been developed since the 1970s, and is currently used by the TowerJazz semiconductor facility for the production of computer components.

The project site is at the eastern margin of Orange County's coastal province and lies atop paralic (coastal) sediments. These deposits consist of poorly sorted, moderately permeable, reddish-brown, interdigiated strandline, beach, estuarine, and colluvial deposits of silt, sand, and gravel. The deposits are overlain by a thin layer of younger, sandy alluvial soil.

Cultural Setting

Prehistoric Setting

Archaeological evidence suggests habitation of the project site by a mobile population during the early Millingstone Period, about 8,000 to 6,500 years before present (B.P.). During the Late Millingstone Period, about 6,500 years to 3,000 year B.P., this population appears to have expanded their settlement to take advantage of new habitats and resources available. By the end of the Intermediate Period, 3,000 to 1,000 years B.P., the settlement became more stationary, as indicated by the hearths, mortuary features, and houses found in archaeological sites from this time period.

The project site and surrounding area became inhabited by Native Americans known as the Gabrielino about 3,500 years ago, toward the end of the Late Millingstone Period. Gabrielino territory encompassed more than 2,500 square miles of southern California, stretching from Topango Canyon in the northwest to Mount Wilson in the north, San Bernardino in the east, and Aliso Creek in the southeast. By the time of European contact the tribe consisted of approximately 5,000 people living in various settlements throughout the area.

The Gabrielino utilized local marine, woodland, and grassland food zones. Diet consisted primarily of plant foods, particularly acorns. Wild game was also consumed and consisted principally of deer, antelope, duck, and small mammals such as squirrels, rabbits, and mice. Marine animals, including fish and crustaceans, were also hunted and gathered from both the shoreline and the open ocean.

The project area is not near any recorded major village; the closest settlement, the village of Kengaa, is approximately four miles south of the project site. However, multiple prehistoric archaeological sites are known within a mile radius of the project area (Cogstone 2012).

Historic Setting

Between 1769 and 1822 the Spanish colonized California and established missions, presidios, and pueblos throughout the area. After winning its independence from Spain, Mexico worked to lessen the wealth and power held by these missions. In 1833, with the passage of the Secularization Act, the missions and their lands were given to the Mexican governor, who redistributed them in the form of grants to private owners, who set up ranchos.

When California was granted statehood in 1850, the US promised to honor rancho land grants. However, the process of defining land boundaries and proving legal ownership was often costly and time consuming. In combination with environmental factors detrimental to the cattle industry, many ranchos incurred debt and went into bankruptcy. This resulted in ranchos being divided up and sold inexpensively.

The project area lies within the boundaries of what was Rancho San Joaquin, the result of two land grants awarded to Jose Andres Sepulveda in 1837 and 1842. In 1864 Sepulveda sold the rancho to a group of four investment partners, one of whom was James Irvine. Twelve years later in 1876, Irvine bought out his partners and became the sole owner of the Irvine Ranch.

The project area remained undeveloped until the early 1970s. Historical topographic maps from 1902 and 1935 reveal that the project area was fairly isolated and that no buildings were in its immediate vicinity. Aerial photographs as late as 1952 confirm that the project area was vacant until at least mid-century. The next available aerial photograph available, dated 1972, shows the project area fully developed.

Archaeological and Historical Resources

Archeological resources are the physical remains and traces of past human activity, such as artifacts, residues, and built features. Historic resources include buildings, objects, structures, areas, or sites that are historically important. As previously mentioned, an archaeological and historical records search was completed at SCCIC in November 2011 by Cogstone. The search included a review of several registers and inventories, including the national Register of Historic Places and the California Register of Historic Resources. The records search determined that there are no known cultural resources within the proposed project site's boundaries. Further, while the search identified several historic and prehistoric resources within a one-mile radius of the project area, none of these resources are listed or eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, California landmarks, or local registers.

Paleontological Resources

Two paleontological records searches were conducted for the project site and surrounding area. The first record search was conducted by the LACM in 2011, the second by Cogstone via UC Berkeley's online paleontology database. Both searches were negative for fossil specimens within the project boundary. However, the LACM search reported fossils recorded from the same sediments near and directly adjacent to the project area (Cogstone 2012). Additionally, the literature review revealed that numerous fossils have been recovered during paleontological monitoring of nearby construction projects. Fossils recovered at nearby sites include large mammals such as sabertoothed cats and mammoths, as well as small mammals, birds, and reptiles.

Regulatory Background

Federal, state, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

Federal and State

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) authorized the National Register of Historic Places and coordinates public and private efforts to identify, evaluate, and protect the nation's historic and archaeological resources. The National Register includes districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106 (Protection of Historic Properties) of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 Review refers to the federal review process designed to ensure that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process with assistance from State Historic Preservation Offices.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites that are on federal and Indian lands.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) is a Federal law passed in 1990 that provides a process for museums and federal agencies to return certain Native American cultural items, such as human remains, funerary objects, sacred objects, or objects of cultural patrimony, to lineal descendants and culturally affiliated Indian tribes.

California Health and Safety Code

The discovery of human remains is regulated per California Health and Safety Code Section 7050.5, which states that:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation…until the coroner…has determined…that the remains are not subject to…provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible…. The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and…has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

California Public Resources Code

Archaeological, paleontological, and historical sites are protected pursuant to a wide variety of state policies and regulations enumerated under the California Public Resources Code. In addition, cultural and paleontological resources are recognized as non-renewable resources and therefore receive protection under the California Public Resources Code and CEQA.

- California Public Resources Code 5020–5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The Commission oversees the administration of the California Register of Historical Resources, and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.

- California Public Resources Code 5079–5079.65 defines the functions and duties of the Office of Historic Preservation (OHP). The OHP is responsible for the administration of federally and state mandated historic preservation programs in California and the California Heritage Fund.

- California Public Resources Code 5097.9–5097.991 provides protection to Native American historical and cultural resources, and sacred sites and identifies the powers and duties of the Native American Heritage Commission (NAHC). It also requires notification of discoveries of Native American human remains, descendants and provides for treatment and disposition of human remains and associated grave goods.

California Senate Bill 18

Existing law provides limited protection for Native American prehistoric, archaeological, cultural, spiritual, and ceremonial places. These places may include sanctified cemeteries, religious, ceremonial sites, shrines, burial grounds, prehistoric ruins, archaeological or historic sites, Native American rock art inscriptions, or features of Native American historic, cultural, and sacred sites.

Senate Bill 18 (SB 18), a bill on Traditional Tribal Cultural Places (TTCP), was signed into law in September 2004 and went into effect on March 1, 2005. Codified as California Government Code 65453, it places new requirements upon local governments for proposed projects involving a General Plan Amendment. The law requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving traditional tribal cultural places. The Final Tribal Guidelines recommends that the NAHC provide written information as soon as possible but no later than 30 days to inform the lead agency if the proposed project is determined to be in proximity to a TTCP and another 90 days for tribes to respond to a local government if they want to consult with the local government to determine whether the project would have an adverse impact on the TTCP.

5.4.2 Thresholds of Significance

CEQA Guidelines Section 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource is considered "historically significant" if it meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR, Section 4852), including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values;
- Has yielded, or may be likely to yield, information important in prehistory or history.

The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, or is not included in a local register of historical resources, does not preclude a lead agency from determining that the resource may be an historical resource.

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

C-1 Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5.

C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

C-3 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

C-4 Disturb any human remains, including those interred outside of formal cemeteries.

5.4.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.4-1: DEVELOPMENT OF THE PROJECT WOULD NOT IMPACT AN IDENTIFIED HISTORIC RESOURCE. [THRESHOLD C-1]

Impact Analysis:

Phase 1

Phase 1 of the proposed project would include demolition of the Half Dome building at 4311 Jamboree Boulevard. Structures 50 years old or greater are eligible for consideration for listing as a state or national historic resource. The Half Dome building was constructed between 1967 and 1969 (43 to 45 years ago); therefore, it does not meet the minimum age requirement for state or federal historic consideration. Age notwithstanding, structures may also be considered historically significant if they possess unique qualities or features, or are associated with a person or event of historical significance. However, the building is typical of common industrial buildings and does not demonstrate unique qualities, nor are they associated with a person or event of historical significance. Further, while the records search identified multiple historical sites within a one-mile radius of the project area, none of these resources are identified as eligible for listing on national, state, or local registers. Consequently, development of the proposed project would not impact an identified historic resource.

Phase 2

The building at 4321 Jamboree Road would be demolished as part of Phase 2 of the proposed project. This building was built between the years 1968 and 1972, making it 40 to 44 years old. This building does not meet the 50-year-old or greater criteria as a potential historical resource. Additionally, it is not associated with an historic person or event, nor is it eligible for listing on national, state, or local registers.

IMPACT 5.4-2: DEVELOPMENT OF THE PROJECT SITE, INCLUDING EXCAVATION AS DEEP AS 15 FEET, COULD IMPACT ARCHAEOLOGICAL AND/OR PALEONTOLOGICAL RESOURCES. [THRESHOLDS C-2 AND C-3]

Impact Analysis:

Phase 1

As concluded in the cultural resources assessment conducted by Cogstone, no archaeological or paleontological resources are known to occur within the project area boundaries. Additionally, the area is generally considered to have low sensitivity for archaeological resources. However, the discoveries of resources at nearby locations indicate that similar resources could potentially exist on the site. The records search and literature review conducted by Cogstone revealed that several prehistoric sites and prehistoric isolates and a significant number of fossils have been discovered within a one-mile radius of the project site. Given this, the presence of natural features such as open lagoons and seasonal freshwater wetlands within the immediate vicinity, and the prehistory of the area, there is a possibility that the project area may contain significant subsurface prehistoric resources.

The project area has previously been disturbed by grading and construction activities. The site is currently developed with industrial uses and is bordered by development on all sides. Any resources that may exist on the site have likely been disturbed or damaged. Consequently, it is unlikely that significant archaeological resources would be encountered during implementation of the Uptown Newport project. However, the project would require deeper excavations in order to accommodate the development proposed, particularly the subterranean parking structure, which could include one or two levels. There would be the potential to discover buried resources during the excavation of the project site during Phase 1. Therefore, there remains a possibility that the proposed project could impact archaeological and/or paleontological resources.

Phase 2

During Phase 2, the TowerJazz facility would be demolished and the remaining portions of the project site would be graded and excavated. As with Phase 1, there would be a potential for buried resources to be uncovered during site excavation, particularly for subterranean parking.

IMPACT 5.4-4: PROJECT-RELATED GRADING ACTIVITIES COULD POTENTIALLY DISTURB HUMAN REMAINS. [THRESHOLD C-4]

Impact Analysis:

Phase 1

The cultural resources assessment conducted by Cogstone did not identify any human remains or known human burial sites on the project site or in its vicinity. As the project site has been heavily disturbed in the past and is currently developed with industrial uses, it is unlikely that any human remains exist on the site. However, the excavation and grading activities of the proposed project could result on impacts to unknown human remains.

California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and Public Resources Code Section 5097.98 mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, California Health and Safety Code Section 7050.5 requires that in the event that human remains are discovered within the project site, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Compliance with existing law would ensure that impacts to human would not occur.

Phase 2

The analysis for Phase1 also pertains to Phase 2.

5.4.4 Cumulative Impacts

Future construction projects in the City of Newport Beach, as identified in Chapter 4, *Environmental Setting*, could lead to accelerated degradation of the cultural and paleontological resources. However, each development proposal received by the City is required to undergo environmental review. If there is a

potential for significant impacts on cultural or paleontological resources, an investigation will be required to determine the nature and extent of the resources and identify appropriate mitigation measures. Neither the proposed project nor cumulative development in accordance with the City's General Plan is expected to result in significant impacts to cultural or paleontological resources, provided site-specific surveys and test and evaluation excavations are conducted to determine whether the resources are unique archaeological resources or historical resources, and appropriate mitigation measures are implemented prior to grading. Implementation of the appropriate mitigation measures would reduce cumulative impacts to a level of less than significant.

5.4.5 Existing Regulations and Standard Conditions

Regulations

- California Public Resources Code Sections 5020–5029.5; 5079–5079.65; 5097.9–5097.991
- California Health and Safety Code Section 7050.5

City of Newport Beach Standard Conditions of Approval

The following City-adopted standard operating conditions of approval would apply to the proposed project:

- The City of Newport Beach has standard conditions requiring a qualified archaeologist and a paleontologist to observe construction activities and to establish procedures for redirecting work, evaluating resources, and recommending appropriate actions. More specific requirements have been prepared for this project by the cultural resources consultant, and in lieu of the standard conditions, are included in the mitigation measures below.

5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.4-1 and 5.4-3.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.4-2 Development of the proposed project could impact previously unknown subsurface archeological or paleontological resources.

5.4.7 Mitigation Measures

Impact 5.4-2

Phase 1

4-1 Prior to the issuance of grading permits, the project applicant shall demonstrate to the Community Development Department that an Orange County–certified professional archaeologist has been retained to monitor any potential impacts to archaeological or historic resources throughout the duration of any ground-disturbing activities at the project site. The archeologist shall develop a Cultural Resources Awareness Training program, which shall provide examples of the types of resources that might be encountered and detail procedures to be implemented in that event. The qualified archeologist shall be present at the pregrade meeting to present the training program to all earthmoving personnel and their supervisors and

to discuss the monitoring, collection, and safety procedures of cultural resources, if any are found. If subsurface cultural resources are inadvertently discovered during ground-disturbing activities, the construction contractor shall ensure that all work stops within 25 feet of the find until the qualified archeologist can assess the significance of the find and, if necessary, shall develop appropriate treatment or disposition of the resources in consultation with the City of Newport Beach and a representative of the affected Native American tribe (Gabrielino). The archeological monitor shall have the authority to halt any project-related activities that may be adversely impacting potentially significant cultural resources. Suspension of ground disturbances in the vicinity of the discoveries shall not be lifted until an archeological monitor has evaluated the discoveries to assess whether they are classified as significant cultural resources, pursuant to the California Environmental Quality Act.

4-2 Prior to the issuance of grading permits, the project applicant shall demonstrate to the Community Development Department that an Orange County–certified professional paleontologist has been retained to monitor any potential impacts to paleontological resources throughout the duration of any ground-disturbing activities at the project site. The paleontologist shall review the project's final plans and develop and implement a Paleontological Mitigation Plan, which shall include the following minimum elements:

- All earthmoving activities eight-feet or more below the current surface shall be monitored full-time by a qualified paleontological monitor.
- If fossils are discovered, the paleontological monitor has the authority to temporarily divert work within 25 feet of the find to allow recovery of the fossils and evaluation of the fossil locality.
- Fossil localities shall require documentation including stratigraphic columns and samples for micropaleontological analyses and for dating.
- Fossils shall be prepared to the point of identification and evaluated for significance.
- Significant fossils shall be cataloged and identified prior to being donated to an appropriate repository.
- The final report shall interpret any paleontological resources discovered in the regional context and provide the catalog and all specialists' reports as appendices.

Phase 2

The mitigation measure outlined above would also be applicable to Phase 2.

5.4.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with cultural resources to a level that is less than significant for both Phase 1 and Phase 2. Therefore, no significant unavoidable adverse impacts relating to cultural resources have been identified.

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5.5 GEOLOGY AND SOILS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Uptown Newport project to impact geological and soil resources in the City of Newport Beach. The analysis in this section is based in part on the following technical report(s):

- *Preliminary Geologic and Geotechnical Engineering Investigation, Uptown Newport Village, 4311 Jamboree Road, Newport Beach, California.*, Ginter & Associates, Inc., November 2011.

A complete copy of this study is included in Appendix G of this DEIR.

5.5.1 Environmental Setting

The geologic and geotechnical engineering investigation of the project site completed by Ginter & Associates in November 2011 consisted of:

- Review of pertinent literature and maps, and previous geological investigations of the project site.
- Subsurface investigation consisting of 16 hollow-stem auger borings to depths of up to 101 feet below ground surface (bgs); and eight cone penetrometer borings to depths of up to 70 feet bgs.
- Laboratory testing of subsurface soil samples
- Seismic design parameters per 2010 California Building Code (CBC) requirements; and liquefaction analysis
- Geologic hazards evaluation
- Report preparation

Geologic Setting

Regional Geologic Setting

The project site is located in the Peninsular Ranges Geomorphic Province, one of several regions of California classified by the types of landforms most common within each province. The Peninsular Ranges Geomorphic Province is a series of northwest-southeast-oriented fault blocks in which some blocks are mountain ranges and others are valleys. The project site is located at the southeastern edge of the Los Angeles Basin.

Local Geologic Setting

The site is near the northeastern edge of the Newport Mesa, a flat-topped platform at an elevation of approximately 50 feet above mean sea level (amsl) and deeply dissected by stream erosion. San Diego Creek passes approximately 0.6 mile southeast of the site, and is one of the major streams that crosses the Newport Mesa. During development of this site (1967-1969), the area was cut and filled with local materials.

Geologic Units

The geologic units present within the site can be characterized as generally stiff to very stiff silty to sandy clay fill soils overlying native sands, silts, clays and gravels of marine terrace deposits to the depths explored. The site was graded in 1967-1969 using conventional cut and fill techniques.

Geologic units under the site found in site borings to depths of up to 101 feet included:

- **Artificial Fill:** Various landscape and open space areas have been re-worked to provide soils for vegetation in the form of shrubs, trees and grass. These areas are generally 2-3 feet thick adjacent to existing structures.

- **Compacted Artificial Fill:** This unit consists of reddish brown to brown sand, silty sand, sandy clay, sandy silt and clayey sands. Thicknesses vary from 2-24 feet.

- **Terrace Deposits:** Underlying the engineered fills, native terrace deposits consisting of crudely stratified sequences of sand, silts, clays and gravels occur to the depths explored – up to 101 feet below ground surface. The thickness of this unit is considered to be approximately 100-200 feet.

- **Bedrock Units:** The Lakewood Formation, at depth beneath the marine terrace deposits, consists of well-sorted gray, poorly cemented sands inter-bedded with silty fine-grained sands. Little information is available for this unit in the Upper Newport Bay area.

Groundwater

The project site is located above the Main Orange County Groundwater Basin ("Basin"), which extends northwest from the site and underlies most of central and northern Orange County, along the boundary between the Basin and the Irvine Groundwater Subbasin to the northeast. Groundwater zones in sediments under the site include a Shallow Groundwater Zone extending from 15-30 to 35-45 feet below ground surface (bgs); an Intermediate Groundwater Zone from 65 to 100 feet bgs; and a Lower Groundwater Zone from 140 to 225 feet bgs. Site borings to depths of up to 101 feet conducted as part of the geotechnical engineering investigation for the proposed project penetrated the Shallow Groundwater Zone.

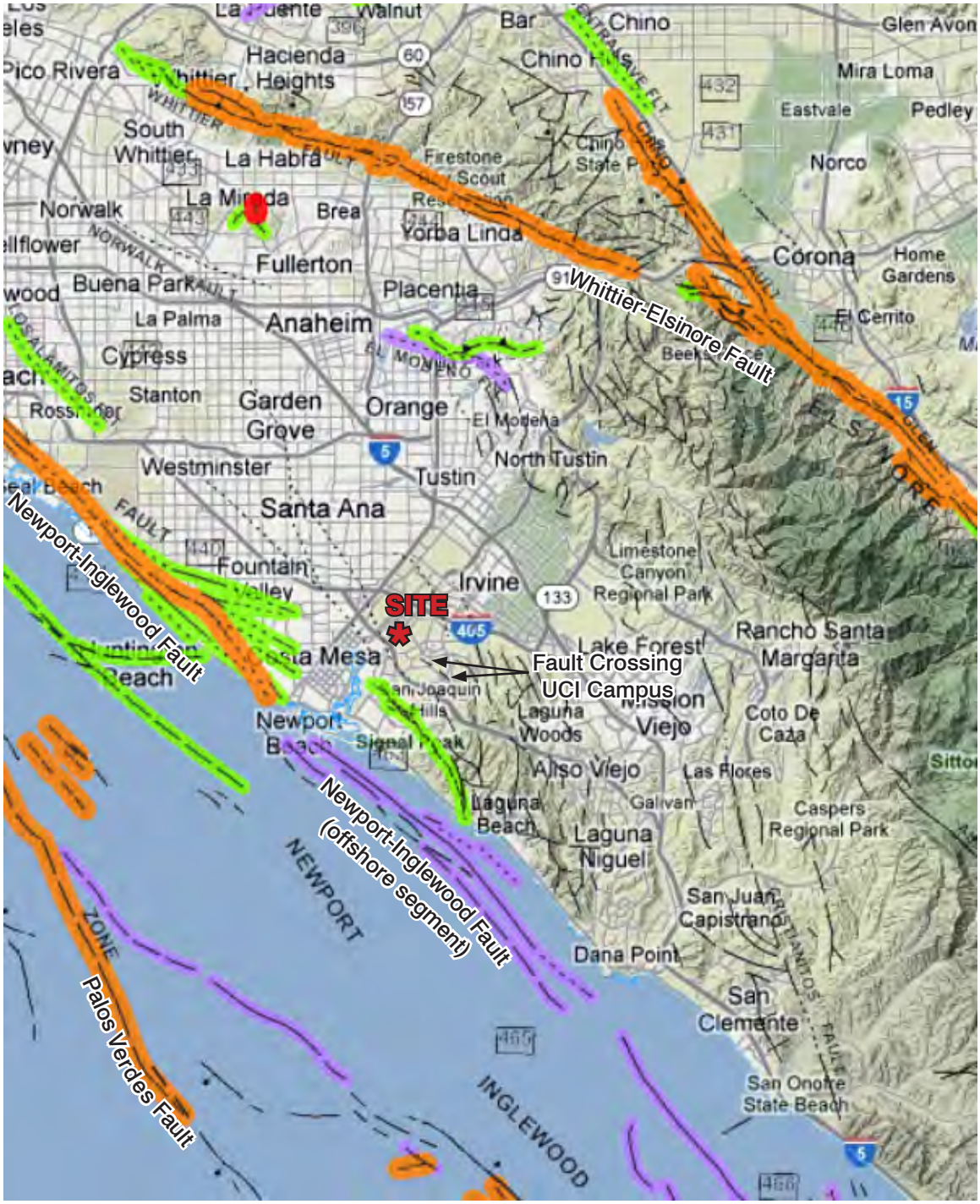
Faulting and Seismic Hazards

Regional Faults

The Peninsular Ranges are traversed by dominant northwest trending faults including the San Andreas Fault about 47 miles northeast of the project site; San Jacinto Fault approximately 44 miles northeast of the site; Whittier-Elsinore Fault about 17 miles northeast of the site; and the Newport-Inglewood Fault, which passes approximately 4.5 miles southwest of the site. All four of these faults are classified as active, that is, they have had surface displacement within the last 11,000 years; and earthquakes have been recorded along all four faults in historic time. The Newport-Inglewood and Whittier-Elsinore Faults are shown on Figure 5.5-1, *Fault Map*.

In addition to these active faults, blind thrust faults are also thought to be present under the Los Angeles Basin. Blind thrust faults do not rupture all the way to the surface, so there is no evidence of them on the ground. The plane of a thrust fault is at an angle to the horizontal, with one block of earth moving up over another block. The 1994 Northridge earthquake occurred on this type of fault. Several major blind thrust systems have been identified; the Compton Thrust System, consisting of three segments (Baldwin Hills, Central and Santa Ana) is closest to the site.

Fault Map



Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays. Fault traces are queried where continuation or existence is uncertain.

Active Faults

Other Faults

0 3
Scale (Miles)

Source: California Geological Survey 2011

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Faults Near the Project Site

The Newport-Inglewood Fault Zone extends nearly 40 miles northwest-southeast from Culver City to Newport Beach, and passes about 4.5 miles southwest of the project site. No known faults traverse the Newport Mesa, although the Newport-Inglewood Fault Zone passes near the southern boundary of the Mesa. The Pelican Hills Fault passes about two miles southwest of the site, and is classified as potentially active.[1]

A fault extending northwest-southeast across the University of California Irvine (UCI) campus was identified in 1991, and is classified as potentially active. That fault passes near University Drive approximately 0.9 mile southeast of the project site. UCI now requires that structures for full-time human occupancy be set back 50 feet from the fault.

An analysis of lineaments, that is, linear changes in topography, structure of rock beds, and vegetation, that can be associated with faults, was conducted as part of the geotechnical investigation using aerial photographs. The lineament analysis covered about 10 square miles area with the project site in the north-central part of the area. Lineaments were classified into moderate lineaments and weak lineaments depending on their lengths and the types of changes seen along the lineaments. One moderate lineament was identified, and interpreted to be the Pelican Hills Fault. Three weak lineaments were identified; none of the weak lineaments were closer to the project site than the Pelican Hills Fault.

The southern edge of the Santa Ana segment of the Compton Thrust System is inferred to be located beneath the site, but there is great uncertainty about the location of the Compton Thrust System.

Ground Shaking

The major cause of damage from earthquakes is the shaking from earthquake waves; damage due to actual fault rupture at or just below the surface beneath a structure is much rarer. The shaking would occur not only immediately adjacent to the earthquake epicenter, but for many miles in all directions.

When comparing the sizes of earthquakes, the most meaningful feature is the amount of energy released, most often measured as seismic moment. Magnitude scales, including the scale of seismic moment, are logarithmic. Each one-point increase in magnitude represents a tenfold increase in amplitude of the waves as measured at a specific location, and a 32-fold increase in energy. That is, a magnitude 7 earthquake produces 100 times (10 x 10) the ground motion amplitude of a magnitude 5 earthquake.

The San Andreas, San Jacinto, Whittier-Elsinore, and Newport-Inglewood Faults are each considered capable of generating an earthquake of magnitude 7.5.

The Newport-Inglewood Fault and its offshore extension is considered capable of producing the strongest ground shaking at the project site. Historic earthquakes on the Newport-Inglewood Fault Zone include the 1920 Inglewood earthquake (magnitude 4.9) and the 1933 Long Beach earthquake (magnitude 6.3). Other faults which could generate ground shaking nearly as strong on the site include the Whittier-Elsinore Fault and the Palos Verdes Fault (offshore and about 17 miles southwest of the site).

The peak ground acceleration with a 10 percent probability of being exceeded in 50 years, is 0.345g where g is the acceleration of gravity. The Modified Mercalli Intensity (MMI) Scale is a qualitative scale of how

[1] The California Division of Mines and Geology (now the California Geological Survey) classified potentially active faults as those showing evidence of surface displacement between 1.8 million and 11,000 years ago in earthquake fault zone maps published until 1988; the California Geological Survey no longer uses the classification *potentially active*.

earthquakes are felt by people and earthquakes' effects on buildings. The MMI is a 12-point scale ranging from Intensity I, which is rarely felt by people, to Intensity XII, in which damage to structures is total and objects are thrown into the air. An acceleration of 0.345g corresponds roughly to an intensity of VIII on the MMI Scale (Wald 1999). In an Intensity VIII earthquake damage is slight in specially designed structures; ordinary substantial buildings are damaged considerably and partially collapse; and damage is great in poorly built structures. Objects such as chimneys, factory stacks, columns, monuments, and walls fall, and heavy furniture is overturned (USGS 2009).

Liquefaction and Related Ground Failure

Liquefaction is a process whereby strong earthquake shaking causes sediment layers that are saturated with groundwater to lose strength and behave as a fluid. This subsurface process can lead to near-surface or surface ground failure that can result in property damage and structural failure. If surface ground failure does occur, it is usually expressed as lateral spreading, flow failures, ground oscillation, and/or general loss of bearing strength. Sand boils (injections of fluidized sediment) can commonly accompany these different types of failure.

In order to determine a region's susceptibility to liquefaction, three major factors must be analyzed:

- The intensity and duration of ground shaking.
- The age and texture of the alluvial sediments: Generally, the younger, less well compacted sediments tend to have a higher susceptibility to liquefaction. Sediment texture also plays a dominant role in determining liquefaction susceptibility. Sand and silty sands deposited in river channels and floodplains tend to be more susceptible to liquefaction than coarser or finer grained alluvial materials.
- The depth to the groundwater. Groundwater saturation of sediments is required in order for earthquake induced liquefaction to occur. In general, groundwater depths shallower than 10 feet to the surface can cause the highest liquefaction susceptibility.

The liquefaction analysis for the project assumed groundwater depth of 15 feet, an earthquake of magnitude 6.6, and peak ground acceleration onsite of 0.36g. Isolated, thin, discontinuous layers of medium dense granular soil below the groundwater table were found to be susceptible to liquefaction; the shallowest soil found to be susceptible to liquefaction is about 27.4 feet bgs. Up to about 0.5 inch of liquefaction-induced total settlement may occur at isolated locations within the site. Because liquefaction will likely occur in isolated areas, differential settlement may be abrupt; therefore, differential settlements equivalent to the total settlements described above may occur over short distances. Surface failures due to liquefaction, such as ground rupture and sand boils, are unlikely due to the thickness of overlying non-liquefiable soil.

Other Geologic Hazards

Expansive Soils

Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. In general, the fine to medium-grained sands with some gravels will exhibit low expansion indices. The silty clays, sandy clays and clays will exhibit medium to high expansion indices. Sandy to silty clays from onsite borings were found to have medium to high expansion indices in three expansion index tests.

Erosion

Erosion is the movement of rock and soil from place to place, and is a natural process. Common agents of erosion in the project region include wind and flowing water. Erosion can be increased greatly by earthmoving activities if erosion-control measures are not used; common means of soil erosion from construction sites include water, wind, and being tracked off site by vehicles.

Regulatory Setting

State laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

2010 California Building Code

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission ,and the code is also known as Title 24, Part 2 of the California Code of Regulations. The most recent building standard adopted by the legislature and used throughout the state is the 2010 version of the CBC, often with local, more restrictive amendments that are based on local geographic, topographic, or climatic conditions. These codes provide minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground shaking with specified probability of occurring at a site.

Statewide General Construction Activity Permit and Storm Water Pollution Prevention Plans

The State Water Resources Control Board (SWRCB) issued a statewide general National Pollution Discharge Elimination System (NPDES) Permit for storm water discharges from construction sites (NPDES No. CAS000002) in 2009. Under this Statewide General Construction Activity permit, discharges of storm water from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or to be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). Each applicant under the General Construction Activity Permit must ensure that a SWPPP is prepared prior to grading and is implemented during construction. The SWPPP must list BMPs implemented on the construction site to protect storm water runoff, and must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters.

5.5.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

G-1 Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)

ii) Strong seismic ground shaking.

iii) Seismic-related ground failure, including liquefaction.

iv) Landslides.

G-2 Result in substantial soil erosion or the loss of topsoil.

G-3 Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

G-4 Be located on expansive soil, as defined in Table 18-1B of the Uniform building Code (1994), creating substantial risks to life or property.

G-5 Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: G-1.i, G-1.iv, and G-5. These impacts will not be addressed in the following analysis.

5.5.3 Environmental Impacts

Estimated grading volumes are shown below in Table 5.5-1. All quantities are raw grading quantities, and do not reflect settlement during compaction. The shrinkage of excavated soils, within five feet from the existing grade, upon compaction as engineered fill is anticipated to be on the order of five percent. While the fill quantities shown are somewhat larger than the cut quantities, grading on the sites of each phase is intended to be generally balanced. Estimated export of demolition debris from the site is shown in Table 5.5-2. If a second level of underground parking is developed, estimated required soil export from the site would be 90,000 cubic yards (cy) for Phase 1 and 100,000 cy from Phase 2.

Table 5.5-1
Estimated Grading Volume and Net Export Volume in Cubic Yards

Phase	Cut	Fill
1	48,200	48,900
2	98,500	114,100
Total	**137,900**	**163,000**

Table 5.5-2
Estimated Material Export from Site, cubic yards

Phase	Demolition Debris	Soil Export (If Second Level of Underground Parking Built)
1	12,800	90,000
2	13,000	100,000
Total	**25,800**	**190,000**

The project would develop up to 1,244 residential units in towers up to 150 feet high, and up to 11,500 square feet of commercial space. At buildout, the project is expected to house up to 2,724 persons at the average household size for the City of Newport Beach of 2.19 persons calculated from the 2010 US Census (Census 2012).

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.5-1: PROJECT DEVELOPMENT WOULD SUBJECT PEOPLE AND STRUCTURES TO STRONG SEISMIC GROUND SHAKING. [THRESHOLD G-1.II])

Impact Analysis:

Phase 1

The peak ground acceleration on the project site with a 10 percent probability of being exceeded in 50 years, is 0.345g where g is the acceleration of gravity. An acceleration of 0.345g corresponds roughly to an intensity of VIII on the MMI Scale. In an Intensity VIII earthquake damage is slight in specially designed structures; ordinary substantial buildings are damaged considerably and partially collapse; and damage is great in poorly built structures. Objects such as chimneys, factory stacks, columns, monuments, and walls fall, and heavy furniture is overturned (USGS 2009).

There is no realistic way that the seismic shaking hazard can be avoided. Seismic performance goals for structures may expect that some property damage will be sustained in a moderate to large earthquake, but damage should be repairable and not life- threatening. For residential development, structures should be able to resist minor earthquakes with no damage; resist moderate earthquakes with some nonstructural damage; and resist major earthquakes with some structural damage, but with a low likelihood of collapse.

The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock onsite, and the strength of ground motions with specified probability of occurring at the site. Seismic design parameters for the project, pursuant to requirements of the 2010 CBC, are included in the project geotechnical investigation report.

Phase 2 Analysis

The analysis for Phase 1 above also pertains to Phase 2 of the proposed project.

IMPACT 5.5-2: DEVELOPMENT OF THE PROJECT COULD SUBJECT PEOPLE AND STRUCTURES TO HAZARDS ARISING FROM LIQUEFACTION. [THRESHOLDS G-2 AND G-3]

Impact Analysis:

Phase 1 Analysis

Isolated, thin, discontinuous layers of medium dense granular soil below the groundwater table were found at the project site to be susceptible to liquefaction. The shallowest soil found to be susceptible to liquefaction in the analysis is about 27.4 feet bgs. Up to about 0.5 inch of liquefaction-induced total settlement may occur at isolated locations within the site. Because liquefaction would likely occur in isolated areas, differential settlement may be abrupt; therefore, differential settlements equivalent to the total settlements described above may occur over short distances. Surface failures due to liquefaction, such as ground rupture and sand boils, are unlikely due to the thickness of overlying non-liquefiable soil.

Information from two cone penetrometers – CPT-1 and CPT-2 – was used in the liquefaction analysis. Of the two locations, the highest estimated liquefaction potential, 0.43 inch of liquefaction-induced settlement, would occur at the location of CPT-1 in the southern part of the site of Phase 1.

Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. The risk of lateral spreading onsite is considered very low for the same reason that other types of surface ground failure related to liquefaction are considered unlikely.

Site-specific liquefaction analyses would be required by the 2010 CBC for the construction of each building during the design phase considering the locations of each building and configurations such as subterranean construction, etc. Reinforced shallow foundations or deepened foundations are recommended in the project geotechnical report to mitigate potential adverse effects arising from liquefaction.

Phase 2

Information from two cone penetrometers – CPT-4 and CPT-8 – was used in the liquefaction analysis. Total liquefaction-induced settlement on the site of Phase 2, based on data from the two cone penetrometers, is 0.18 to 0.19 inch. The analysis above regarding lateral spreading and required further analysis also pertains to Phase 2 of the proposed project.

IMPACT 5.5-3: THE PROJECT COULD CAUSE SOIL EROSION. [THRESHOLD G-2]

Impact Analysis:

Phase 1

Project site demolition, site preparation, and grading and construction activities would disturb large amounts of soil, thus creating a potential for substantial soil erosion. Site clearance for Phase 1 would involve export of an estimated 12,800 cubic yards of demolition debris. Site grading for Phase 1 is estimated to involve about 48,200 cubic yards (cy) of cut and 48,900 cy of fill. Grading would be balanced or nearly balanced; any needed soil stockpiling would occur onsite. If a second level of underground parking is developed, export of about 90,000 cubic yards of soil would be required.

The project would prepare and implement a SWPPP pursuant to the Statewide General Construction Activity permit. The project would implement BMPs – specified in the SWPPP – to avoid or reduce pollution of stormwater, including pollution with sediment. Categories of construction BMPs included in SWPPPs are described below in Table 5.5-3.

Table 5.5-3
Construction BMPs

Category	Purpose	Examples
Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping
Wind Erosion Controls	The aims and methods of wind erosion control are similar to those of erosion control described above.	See *Erosion Controls* above.
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
NonStorm Water Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

Phase 2

Site clearance for Phase 2 would involve export of about 13,000 cy of demolition debris. Estimated grading quantities for Phase 2 are 98,500 cy of cut and 114,100 cy of fill. Cut and fill are intended to be balanced or nearly balanced so that no substantial soil export or import would be needed. If a second level of underground parking is developed, export of about 100,000 cubic yards of soil would be required. The analysis above also pertains to Phase 2 of the proposed project.

IMPACT 5.5-4: DEVELOPMENT OF THE PROJECT COULD EXPOSE PEOPLE AND STRUCTURES TO HAZARDS ARISING FROM EXPANSIVE SOILS. [THRESHOLD G-4]

Impact Analysis:

Phase 1 Analysis

Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. In three expansion index tests, sandy to silty clays from onsite borings were found to have medium to high expansion indices.

During grading operations within approximately the upper five feet of soils, the mixing and placement of various on- site soils as engineered compacted fills would reduce hazards from expansive soils. However, additional testing of soil for expansion potential shall be conducted before the design-building phases of buildings in the Uptown Newport project.

Phase 2 Analysis

The analysis above also pertains to Phase 2 of the proposed project.

IMPACT 5.5-5 PROJECT DEVELOPMENT WOULD NOT SUBJECT PEOPLE OR STRUCTURES TO SUBSTANTIAL HAZARDS ARISING FROM SOIL SUBSIDENCE. [THRESHOLD G-3 (PART)]

Impact Analysis:

Phase 1 Analysis

The project would remove the undocumented fills under and near proposed development areas and replace the removed materials with engineered fill derived from approved onsite and offsite sources. The removal of the compressible materials and replacement with engineered fill, and the presence of dense underlying alluvial terrace deposits and bedrock materials, would reduce potential for subsidence.

Phase 2 Analysis

The analysis above also pertains to Phase 2 of the proposed project.

5.5.4 Cumulative Impacts

Impacts to geology and soils are specific to the geologic and soils conditions on a particular project site. Mitigation of geologic, seismic, and soil impacts of development projects would also be specific to each site area. Compliance with the most recent adopted CBC standards serves to reduce seismic-related risks. Therefore, no adverse cumulative impacts related to soils and geology are anticipated.

5.5.5 Existing Regulations and Standard Conditions

Regulations

- 2010 California Building Code (California Code of Regulations Title 24 Part 2)
- Statewide General Construction Activity Permit (State Water Resources Control Board Order No. 2009-0009-DWQ).

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to geology and soils that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.5.6 Level of Significance Before Mitigation

Phase 1

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.5-1, 5.5-2, 5.5-3, and 5.5-6.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.5-4 Project development could expose people and structures to substantial hazards stemming from expansive soils.

Phase 2

The significance conclusions above also apply to Phase 2.

5.5.7 Mitigation Measures

Phase 1

Impact 5.5-4

6-1 Prior to issuance of any grading permits for the project, the project applicant shall have soil testing for expansion potential conducted by a professional engineering geologist or registered geotechnical engineer. The geologist or engineer shall prepare a report describing the sampling and testing; findings; any hazards related to the findings; and recommendations for reducing any hazards identified. The project applicant shall submit a copy of the report to the City of Newport Beach Community Development Department for review and approval by the City Building Division.

Phase 2

Mitigation Measure 6-1 also applies to Phase 2.

5.5.8 Level of Significance After Mitigation

Upon implementation of mitigation measures, impacts would be less than significant.

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5.6 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the Uptown Newport project (proposed project) to cumulatively contribute to greenhouse gas (GHG) emissions. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are considered on a cumulative basis.

The chapter evaluates consistency of the project with the strategies outlined in the California Air Resources Board's (CARB) Scoping Plan in accordance with the GHG reduction goals of Assembly Bill 32 (AB 32) and strategies proposed by the Southern California Association of Governments (SCAG) to reduce vehicle miles traveled (VMT) in the region, in accordance with Senate Bill 375 (SB 375). This chapter also considers policies and mitigation suggested by the California Attorney General and the California Air Pollution Control Officer's Association (CAPCOA) to reduce GHG emissions. GHG modeling is included in Appendix C.

5.6.1 Environmental Setting

Greenhouse Gases and Climate Change

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHG, to the atmosphere. Climate change is the variation of Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor,[1] carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHG identified by the IPCC that contribute to global warming to a lesser extent include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001). Table 5.6-1 lists the GHG applicable to the proposed project and their relative global warming potentials (GWP) compared to CO_2. The majors GHG are briefly described below the table.

Carbon dioxide (CO_2) enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.

Methane (CH_4) is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in municipal landfills and water treatment facilities.

Nitrous oxide (N_2O) is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

[1] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

Table 5.6-1
Greenhouse Gases and Their Relative Global Warming Potential Compared to CO_2

GHG	Atmospheric Lifetime (years)	Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	50 to 200	1
Methane (CH_4)[2]	12 (±3)	21
Nitrous Oxide (N_2O)	120	310
Hydrofluorocarbons:		
HFC-23	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
Perfluoromethane: CF_4	50,000	6,500
Perfluoroethane: C_2F_6	10,000	9,200
Perfluorobutane: C_4F_{10}	2,600	7,000
Perfluoro-2-methylpentane: C_6F_{14}	3,200	7,400
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: USEPA 2008, IPCC 2001.
[1] Based on 100-Year Time Horizon of the Global Warming Potential (GWP) of the air pollutant relative to CO_2.
[2] The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

Fluorinated gases are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as High GWP gases.

- ***Chlorofluorocarbons (CFCs)*** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other GHG compounds covered under the Kyoto Protocol.

- ***Perfluorocarbons (PFCs)*** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are also used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

- ***Sulfur Hexafluoride (SF_6)*** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

- ***Hydrochlorofluorocarbons (HCFCs)*** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

- ***Hydrofluorocarbons (HFCs)*** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (USEPA 2008a).

California's GHG Sources and Relative Contribution

California is the second largest emitter of GHG in the United States, only surpassed by Texas, and the tenth largest GHG emitter in the world. However, because of more stringent air emission regulations, in 2001 California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO_2 emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services) (CEC 2006).

CARB's latest update to the statewide GHG emissions inventory was conducted in 2012 for year 2009 emissions.[2] In 2009, California produced 457 MMTons of CO_2-equivalent (CO_2e) GHG emissions.[3] California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the state's total emissions. Electricity consumption is the second largest source, comprising 22.7 percent. Industrial activities are California's third largest source of GHG emissions, comprising 17.8 percent of the state's total emissions. Other major sources of GHG emissions include commercial and residential, recycling and waste, high global warming potential GHGs, agriculture, and forestry (CARB 2012).

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and climate change pollutants that are attributable to human activities. The amount of CO_2 has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006).

Climate change scenarios are affected by varying degrees of uncertainty. IPCC's 2007 Fourth Assessment Report projects that the global mean temperature increase from 1990 to 2100, under different climate-change scenarios, will range from 1.4 to 5.8°C (2.5 to 10.4°F). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic timeframe but within a human lifetime (CAT 2006).

[2] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (AB 32).
[3] CO_2-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Potential Climate Change Impacts for California

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also hard to predict. In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures, 2) a smaller fraction of precipitation is falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of 5 to 30 days earlier in the springs, and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). According to the California Climate Action Team (CAT), even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.6-2), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks are shown in Table 5.6-2 and include public health impacts, water resources impacts, agricultural impacts, coastal sea level impacts, forest and biological resource impacts, and electricity impacts. Specific climate change impacts that could affect the project include health impacts from a reduction in air quality, water resources impacts from a reduction in water supply, and increased energy demand.

Table 5.6-2
Summary of Global Climate Change Risks to California

Impact Category	*Potential Risk*
Public Health Impacts	• Poor air quality made worse • More severe heat
Water Resources Impacts	• Decreasing Sierra Nevada snow pack • Challenges in securing adequate water supply • Potential reduction in hydropower • Loss of winter recreation
Agricultural Impacts	• Increasing temperature • Increasing threats from pests and pathogens • Expanded ranges of agricultural weeds • Declining productivity • Irregular blooms and harvests
Coastal Sea Level Impacts	• Accelerated sea level rise • Increasing coastal floods • Shrinking beaches • Worsened impacts on infrastructure
Forest and Biological Resource Impacts	• Increasing risk and severity of wildfires • Lengthening of the wildfire season • Movement of forest areas • Conversion of forest to grassland • Increasing threats from pest and pathogens • Declining forest productivity • Shifting vegetation and species distribution • Altered timing of migration and mating habits • Loss of sensitive or slow-moving species
Electricity	• Potential reduction in hydropower • Increased energy demand

Sources: CEC 2006; CEC 2008.

Regulatory Setting

Regulation of GHG Emissions on a National Level

The United States Environmental Protection Agency (EPA) announced on December 7, 2009, that GHG emissions threaten the public health and welfare of the American people and that GHG emissions from on-road vehicles contribute to that threat. The EPA's final findings respond to the 2007 U.S. Supreme Court decision that GHG emissions fit within the Clean Air Act definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements, but allow the EPA to finalize the GHG standards proposed in 2009 for new light-duty vehicles as part of the joint rulemaking with the Department of Transportation (EPA 2009).

The EPA's endangerment finding covers emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world (the first three are applicable to the proposed project).

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 metric tons (MTons) or more per year are required to submit an annual report.

Regulation of GHG Emissions on a State Level

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in AB 32, the Global Warming Solutions Act, and Executive Order S-03-05. AB 32 was passed by the California state legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05, signed June 1, 2005. Executive Order S-03-05 set the following GHG reduction targets for the state:

- 2000 levels by 2010
- 1990 levels by 2020
- 80 percent below 1990 levels by 2050

AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 million metric tons (MMTons). In December 2007, CARB approved a 2020 emissions limit of 427 MMTons (471 million tons) for the state. The 2020 target requires a total emissions reduction of 169 MMTons, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5 percent of 596 MMTons) (CARB 2008).[4]

Since release of the 2008 Scoping Plan, CARB has updated the statewide GHG emissions inventory to reflect GHG emissions in light of the economic downturn and measures not previously considered within the 2008 Scoping Plan baseline inventory. The updated forecast predicts emissions to be 507 MMTons by 2020. The new inventory identifies that an estimated 80 MMTons of reductions are necessary to achieve the statewide

[4] CARB defines BAU in its Scoping Plan as emissions levels that would occur if California continued to grow and add new GHG emissions but did not adopt any measures to reduce emissions. Projections for each emission-generating sector were compiled and used to estimate emissions for 2020 based on 2002–2004 emissions intensities. Under CARB's definition of BAU, new growth is assumed to have the same carbon intensities as was typical from 2002 through 2004.

emissions reduction of AB 32 by 2020, 15.7 percent of the projected emissions compared to BAU in year 2020 (i.e., 15.7 percent of 507 MMTons) (CARB 2012).

In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MTons per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions. Key elements of CARB's GHG reduction plan include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a mix of 33 percent for energy generation from renewable sources;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system for large stationary sources;
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to state laws and policies, including California's clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS);[5]
- Creating target fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation.

Table 5.6-3 shows the proposed reductions from regulations and programs outlined in the Scoping Plan. While local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of 5 MMTons, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments plays in successful implementation of AB 32, CARB is recommending GHG reduction goals of 15 percent of today's levels by 2020 to ensure that municipal and community-wide emissions match the State's reduction target. Measures that local governments take to support shifts in land use patterns are anticipated to emphasize compact, low-impact growth over development in greenfields, resulting in fewer VMT (CARB 2008).

[5] On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoins the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Night Circuit Court granted CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision.

Table 5.6-3
Scoping Plan Greenhouse Gas Reduction Measures and Reductions toward 2020 Target

Recommended Reduction Measures	Reductions Counted toward 2020 Target of 169 MMT CO_2e	Percentage of Statewide 2020 Target
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	**146.7**	**87%**
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	**27.3**	**16%**
Total Reductions Counted toward 2020 Target	**174**	**100%**
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted Towards 2020 Target	**42.8**	**NA**

Source: CARB 2008.
The percentages in the right-hand column add up to more than 100 percent because the emissions reduction goal is 169 MMTons and the Scoping Plan identifies 174 MMTons of emissions reductions strategies.
$MMTCO_{2e}$: million metric tons of CO_2e
[1] Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.
[2] According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_{2e} (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 target.

Energy Conservation Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission in June 1977 and most recently revised in 2008 (Title 24, Part 6, of the California Code of Regulations [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods. On May 31, 2012, the CEC adopted the 2013 Building and Energy Efficiency Standards, which go into effect on

January 1, 2014. Buildings that are constructed in accordance with the 2013 Building and Energy Efficiency Standards are 25 percent (residential) to 30 percent (non-residential) more energy efficient than the 2008 Standards as a result of better windows, insulation, lighting, ventilation systems, and other features that reduce energy consumption in home and businesses.

The 2006 Appliance Efficiency Regulations (Title 20, CCR Sections 1601 through 1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances. While these regulations are now often viewed as "business-as-usual," they exceed the standards imposed by all other states and they reduce GHG emissions by reducing energy demand.

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (proposed Part 11, Title 24) was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations). The green building standards that became mandatory in the 2010 edition of the code established voluntary standards on planning and design for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of the California Green Building Code Standards became effective January 1, 2011.

Renewable Power Requirements

A major component of California's Renewable Energy Program is the renewable portfolio standard (RPS), established under Senate Bills 1078 (Sher) and 107 (Simitian). Under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. CARB has now approved an even higher goal of 33 percent by 2020. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production will decrease indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Vehicle Emission Standards/Improved Fuel Economy

Vehicle GHG emission standards were enacted under AB 1493 (Pavley I) and the low carbon fuel standard (LCFS). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and is anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020.

Regulation of GHG Emissions on a Regional Level

In 2008, SB 375 was adopted and was intended to represent the implementation mechanism necessary to achieve the GHG emissions reductions targets established in the Scoping Plan for the transportation sector as it relates to local land use decisions that affect travel behavior. Implementation is intended to reduce GHG emissions from light-duty trucks and automobiles (excludes emissions associated with goods movement) by aligning regional long-range transportation plans, investments, and housing allocations with local land use planning to reduce vehicle miles traveled and vehicle trips. Specifically, SB 375 requires CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG is the MPO for the southern California region, which includes the counties of Los

Angeles, Orange, San Bernardino County, Riverside, Ventura, and Imperial. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035.

The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's existing transportation network. The proposed targets would result in 3 MMTons of GHG reductions by 2020 and 15 MMTons of GHG reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. For the SCAG region, the SCS was adopted April 2012 (SCAG 2012). The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers. If the SCS is unable to achieve the regional GHG emissions reduction targets, the MPO is required to prepare an Alternative Planning Strategy that shows how the GHG emissions reduction target could be achieved through other development patterns, infrastructure, and/or transportation measures.

Existing GHG Emissions

Existing land uses on the project site generate direct and indirect GHG emissions from transportation, energy (e.g., natural gas use and purchased electricity), and area sources (e.g., stationary sources). Transportation sources of GHG emission are based on the traffic impact analysis conducted by Kimley-Horn Associates. GHG emissions from the existing TowerJazz facility are based on electricity, natural gas, and water use provided by the applicant. GHG emissions were modeled using CalEEMod. The results of the GHG emissions modeling for the existing land uses are included in Table 5.6-4 for Half Dome building emissions, TowerJazz facility emissions, and total emissions.

Table 5.6-4
Project-Related GHG Emissions, Existing

Source	GHG Emissions, MTons/Year		
	Half Dome Building	TowerJazz Facility	Total Site
Area/Energy	—	49,179	49,179
Transportation	292	789	1,081
Waste	74	181	255
Water	—	2,088	2,088
Total	**366**	**52,237**	**52,603**

Source: CalEEmod Version 2011.1.1. Based on electricity, natural gas, and water use provided by TowerJazz. Transportation emissions based on trip rates provided by Kimley-Horn Associates.

5.6.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

South Coast Air Quality Management District

SCAQMD has adopted a significance threshold of 10,000 MTon per year for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting (Meeting No. 15) held in September 2010, SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

Tier 1 If a project is exempt from CEQA, project-level and cumulative GHG emissions are less than significant.

Tier 2 If the project complies with a GHG emissions reduction plan or mitigation program that avoids or substantially reduces GHG emissions in the project's geographic area (i.e., city or county), project-level and cumulative GHG emissions are less than significant.

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD is proposing a screening-level threshold of 3,000 MTons annually for all land use types or the following land-use-specific thresholds: 1,400 MTons for commercial projects, 3,500 MTons for residential projects, or 3,000 MTons for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions:

Tier 3 If GHG emissions are less than the screening-level threshold, project-level and cumulative GHG emissions are less than significant.

Tier 4 If emissions exceed the screening threshold, a more detailed review of the project's GHG emissions is warranted.

SCAQMD is proposing to adopt an efficiency target for projects that exceed the screening threshold. The current recommended approach is per capita efficiency targets. SCAQMD is not recommending use of a percent emissions reduction target. Instead, SCAQMD proposes a 2020 efficiency target of 4.8 MTons per year per service population (MTons/year/SP) for project-level analyses and 6.6 MTons/year/SP for plan level projects (e.g., program-level projects such as general plans).[6] For the purpose of this project, SCAQMD's

[6] It should be noted that the Working Group also considered efficiency targets for 2035 for the first time in this Working Group meeting.

project-level thresholds are used. If projects exceed these per capita efficiency targets, GHG emissions would be considered potentially significant in the absence of mitigation measures.

5.6.3 Environmental Impacts

On December 30, 2009, the Natural Resources Agency adopted amendments to the CEQA Guidelines. These amendments became effective on March 18, 2010. The amendments to the CEQA Guidelines include new requirements to evaluate GHG emissions. Pursuant to the amended CEQA Guidelines, a lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment:

1. The extent to which the project may increase (or reduce) GHG emissions compared to the existing environmental setting;

2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project;

3. The extent to which the project complies with regulations or requirements adopted to implement an adopted statewide, regional, or local plan for the reduction or mitigation of GHG emissions.[7]

GHG emissions modeling was conducted using SCAQMD's California Emissions Estimator Model (CalEEMod). Life cycle emissions are not included in this analysis because not enough information is available for the proposed project, and therefore life cycle GHG emissions would be speculative.[8]

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.6-1: ***THE UPTOWN NEWPORT PROJECT WOULD RESULT IN A TEMPORARY INCREASE IN GREENHOUSE GAS EMISSIONS DURING PHASE 1 OPERATIONS BUT WOULD NOT EXCEED THE PROPOSED SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT PER CAPITA SIGNIFICANCE THRESHOLD. AT BUILDOUT, THE PROJECT WOULD RESULT IN A NET DECREASE IN GHG EMISSIONS. [THRESHOLD GHG-1]***

Impact Analysis: As described previously, a project does not generate enough GHG emissions on its own to influence global climate change; therefore, this impact analysis measures the project's contribution to the cumulative environmental impact. Buildout of the Uptown Newport project would result in direct and indirect GHG emissions from transportation, energy (natural gas use), water and wastewater generation, and waste disposal. In addition, project-related construction emissions are amortized over a 30-year lifetime in accordance with SCAQMD's proposed methodology. Transportation sources of GHG emissions are based on the traffic impact analysis conducted by Kimley-Horn Associates (see Appendix M). Water use is based on indoor and outdoor water demand provided by the Irvine Ranch Water District (see Section 5.15, *Utilities*

[7] OPR recommendations include a requirement that such a plan be adopted through a public review process and include specific requirements that reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable, notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.
[8] Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials are also not known, calculation of life cycle emissions would be speculative.

and Service Systems). Waste generation is calculated based on rates from CalRecycle (see Section 5.15, *Utilities and Service Systems*). GHG emissions were modeled using CalEEMod.

Phase 1

Phase 1 of the Uptown Newport project is forecast to build out by 2018. The existing 126,675-square-foot Half Dome Building would be demolished. The existing land use generates 270 average daily trips. The proposed project would result in operation of 680 residential units, 11,500 square feet of retail land uses, and a 1.03-acre park. These land uses would generate a total of 5,282 average daily vehicle trips, for a net increase of 5,012 average daily vehicle trips. Table 5.6-5 shows the GHG emissions generated at buildout of Phase 1 of the proposed project in 2018. As shown, the project would generate a net increase of 6,563 MTons of GHG emissions and would exceed the proposed SCAQMD screening criteria of 3,000 MTons (Tier 3). As described below, this increase would be temporary until the TowerJazz facility is removed and Phase 2 is constructed. Because Phase 1 GHG emissions would temporarily increase at the site, total GHG emissions for Phase 2 were compared to the proposed per capita thresholds (Tier 4). As shown in this table, operation of Phase 1 of the Uptown Newport would not exceed SCAQMD's proposed per capita significance threshold.

Table 5.6-5
Project-Related GHG Emissions, Phase 1

	GHG Emissions, Year 2018 (MTons/Year)		
Source	***Existing (Demolished in Phase 1)***	***Phase 1 Development***	***Phase 1 Net Increase***
Area	0	510	510
Energy[1]	0	1,311	1,311
Transportation	292	4,307	4,015
Waste	74	366	293
Water[1]	0	136	136
Amortized Construction Emissions	0	298	298
Total	**366**	**6,929**	**6,563**
Screening Threshold	NA	NA	3,000 MTons
Service Population (SP)[2]	NA	1,515	NA
Emissions Per Service Population	NA	4.6 MTons/SP	NA
SCAQMD Proposed Project-Level Efficiency Metric	NA	4.8 MTons/SP	NA
Exceeds Efficiency Metric	NA	No	NA

Source: CalEEmod Version 2011.1.1.
Note: Transportation GHG emissions generated by the project in 2020 would be reduced as a result of the Pavley and LCFS (see Table 5.6-8).
[1] Existing energy and water use not disaggregated from totals provided by TowerJazz. Therefore, no emissions for these sectors are reported for Phase 1.
[2] Based on a service population of 26 employees and 1,489 residents.

Phase 2

Phase 2 of the Uptown Newport project is projected to buildout by 2021. The existing 126,675-square-foot TowerJazz facility would be demolished. This facility generates 747 average daily trips. Energy use, natural gas use, and water use generated by the facility are based on data provided by TowerJazz. Phase 2 of the Uptown Newport project would result in operation of an additional 564 residential units and a 1.02-acre park. These land uses would generate an additional 3,751 average daily vehicle trips, for a net increase of 3,004

average daily vehicle trips in Phase 2. Table 5.6-6 shows the GHG emissions generated at buildout of Phase 2 of the proposed project. As shown in this table, the project would generate a net decrease of 47,212 GHG emissions in Phase 2 and would not exceed the proposed SCAQMD screening criteria of 3,000 MTons (Tier 3). At Phase 2, GHG emissions would result in a beneficial impact relative to GHG emissions and climate change impacts.

Table 5.6-6
Project-Related GHG Emissions – Phase 2

	GHG Emissions – Year 2021 (MTons/Year)		
Source	***Existing (Demolished in Phase 2)***	***Phase 2***	***Phase 2 Net Increase***
Area	0	423	423
Energy[1]	49,179	942	-48,237
Transportation	789	2,959	2,170
Waste	181	300	119
Water[1]	2,088	114	-1,973
Amortized Construction Emissions	0	286	286
Total	**52,237**	**5,025**	**-47,212**
Screening Threshold	NA	NA	3,000 MTons
Service Population (SP)[2]	NA	1,235	NA
Emissions Per Service Population	NA	4.1 MTons/SP	NA

Source: CalEEmod Version 2011.1.1.
Note: Transportation GHG emissions generated by the project in 2020 would be reduced as a result of the Pavley and LCFS.
[1] Existing is based on natural gas, electricity, and water use provided by TowerJazz.
[2] Based on a service population of 1,235 residents.

GHG Emission: Total

A summary of the existing, Phase 1, and Phase 2 GHG emissions is shown in Table 5.6-7. Operation of Uptown Newport project would generate an increase in transportation emissions, which would be offset by a decrease in area/energy emissions when the TowerJazz facility is closed. The project would result in a net decrease in annual GHG emissions of 40,649 MTons. The project would not generate an increase in GHG emissions at buildout and would not exceed the screening threshold of 3,000 MTons. Therefore, GHG emissions would result in a beneficial impact relative to GHG emissions and climate change impacts.

Table 5.6-7
Project-Related GHG Emissions, Total

Source	GHG Emissions (MTons/Year)		
	Existing Total	Phase 1 + Phase 2	Total Net Increase
Area	0	933	933
Energy[1]	49,179	2,254	-46,926
Transportation	1,081	7,267	6,185
Waste	255	667	412
Water[1]	2,088	251	-1,837
Amortized Construction Emissions	0	584	584
Total	**52,603**	**11,954**	**-40,649**
Service Population (SP)[2]	NA	2,724	NA
Emissions Per Service Population	NA	4.3 MTons/SP	NA

Source: CalEEmod Version 2011.1.1.
Note: Transportation GHG emissions generated by Phase 1 of the project in 2020 would be reduced as a result of the Pavley and LCFS.
[1] Existing total is based on natural gas, electricity, and water use provided by TowerJazz. Existing energy and water use not disaggregated from totals provided by TowerJazz. Therefore, no emissions for these sectors are reported for Phase 1.
[2] Based on service population of 26 employees and 2,724 residents.

IMPACT 5.6-2: THE PROPOSED PROJECT WOULD NOT CONFLICT WITH PLANS ADOPTED FOR THE PURPOSE OF REDUCING GREENHOUSE GAS EMISSIONS. [THRESHOLD GHG-2]

Impact Analysis: In accordance with AB 32, CARB developed the Scoping Plan to outline the state's strategy to achieve 1990 level emissions by year 2020. To estimate the reductions necessary, CARB projected statewide 2020 BAU GHG emissions and identified that the state as a whole would be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32 (CARB 2008). The City of Newport Beach has not adopted a GHG reduction plan. No other GHG reduction plans are applicable for the proposed project. Statewide strategies to reduce GHG emissions include the LCFS, California Appliance Energy Efficiency regulations, California Building Standards (e.g., CALGreen and the 2008 Building and Energy Efficiency Standards), California RPS, changes in the corporate average fuel economy standards (e.g., Pavley I and Pavley II [Advanced Clean Cars]), and other measures that would ensure the state is on target to achieve the GHG emissions reduction goals of AB 32. Statewide GHG emissions reduction measures that are being implemented over the next 8 years would assist the City in reducing the project's GHG emissions. Furthermore, at buildout the project would result in a substantial decrease in GHG emissions as a result of removal of a major industrial source of GHG emissions,

The 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted by SCAG on April 4, 2012. The 2012 RTP/SCS is based on local land use projections in the cities and county's general plans. The project is consistent with the General Plan land use designations for the site and therefore consistent with the RTP/SCS. In addition, the project is consistent with regional strategies to reduce passenger vehicle miles traveled. The project is within a major employment center and is proximate to several major employers within Orange County (e.g., University of California Irvine, Allergan). Orange County is traditionally jobs-rich (see Section 5.11, *Population and Housing*). A major transit stop along Jamboree Avenue connects the project to major employment within the Irvine Business Complex and the *i*Shuttle. The proposed project would be built to the maximum allowable density per the City of Newport Beach General Plan and zoning. Increasing residential land uses near major employment centers is a key strategy to reducing regional VMT. Therefore, in addition to generating a net reduction in GHG emissions, the project would be consistent with regional goals to reduce trips and VMT.

5.6.4 Cumulative Impacts

As described under Impact 5.6-1, project-related GHG emissions are not confined to a particular air basin but are dispersed worldwide. Consequently, it is speculative to determine how project-related GHG emissions would contribute to global climate change and how global climate change may impact California. Therefore, impacts identified under Impact 5.6-1 are not project-specific impacts to global warming but the project's contribution to this cumulative impact. As discussed above, at buildout the project would result in a net decrease in GHG emissions. Therefore, project-related GHG emissions and their contribution to global climate change are not cumulatively considerable and would result in a beneficial impact.

5.6.5 Existing Regulations and Standard Conditions of Approval

Regulations

- AB 32: California Global Warming Solutions Act
- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- Pavley Fuel Efficiency Standards (AB1493). Establishes fuel efficiency ratings for new cars.
- California Building Code. Establishes energy efficiency requirements for new construction.
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires the carbon content of fuel sold in California to be 10 percent less by 2020.
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010, to ensure efficient landscapes in new development and reduced water waste in existing landscapes.
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.
- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020.
- California Code of Regulations, Title 24: Energy Efficiency Standards

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to GHG emissions that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.6.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.6-1 and 5.6-2.

5.6.7 Mitigation Measures

No mitigation measures are warranted.

5.6.8 Level of Significance After Mitigation

Phase 1 of the Uptown Newport project would generate an increase in GHG emissions onsite but would not exceed the proposed SCAQMD per capita significance thresholds. At full buildout the project would result in a net decrease in GHG emissions. Impact 5.6-1 would be less than significant and no mitigation measures are warranted.

5.7 HAZARDS AND HAZARDOUS MATERIALS

This section evaluates the potential impacts of the proposed project on human health and the environment due to exposure to hazardous materials or conditions associated with the project site, project construction, and project operations. The hazards addressed in this section include potential threats associated with a release or past release of hazardous substances into the ground, groundwater, or surface water. This section also addresses the potential risk of soil gas and soil vapor intrusion into proposed buildings on the project site. And finally, this section analyzes the potential risk associated for other hazardous materials on the project site (e.g., industrial-related chemical storage, asbestos, lead, etc.). Potential health risks associated with the release of toxic air contaminants are addressed in Section 5.2, *Air Quality.* Potential project impacts and appropriate mitigation measures or standard conditions are included as necessary. The analysis in this section is based, in part, upon the following sources:

- *Report of Phase 1 Environmental Site Assessment, Phase 1 and Phase 2 of Proposed Uptown Newport Village Development, Jazz Semiconductor Facility, Newport Beach, California,* R M Environmental, Inc., June 17, 2010.
- *Clarification of Environmental Issues, Proposed Phase 1 of Uptown Newport Village Project,* letter from Robert C. Manning, RM Environmental, June 20, 2012.
- *Vapor Intrusion Health Risk Assessment for Uptown Newport Village - Phase One - Newport Beach, California,* Skinner Associates, February 13, 2012.
- *Off-Site Consequence Analysis for TowerJazz Semiconductor Facility,* The Planning Center|DC&E, August 2012.

Complete copies of these studies are included in Appendix H of this DEIR.

Additionally, information from publicly available remediation and monitoring reports for the site as submitted to the Regional Water Quality Control Board (RWQCB) are referenced in this section, including the following:

- *2011 Annual Groundwater and Remediation Progress Report Conexant Systems, Inc., 4311 Jamboree Road, Newport Beach, California,* JHA Environmental, Inc., March 2011.

5.7.1 Environmental Setting

Historical Land Use

Prior to 1952 the site appeared as undeveloped land and open agricultural fields, with no structures. The property has historically been used for the development and manufacture of radio components, then semiconductors for telecommunication equipment, including facsimiles, modems, and high-speed data transmission equipment. Based on a review of aerial photographs and historical sources, the property and surrounding properties were acquired by Collins Radio in 1961. The construction of the Half Dome building (4311 Jamboree Road) was between 1967 and 1969, and the TowerJazz facility (4321 Jamboree Road) was built in between 1968 and 1972. Rockwell International purchased Collins Radio in 1972 and in 1996 transferred ownership of the property to Rockwell Semiconductor Systems, which became Conexant Systems in 1999. An eastern expansion of the TowerJazz facility was built between 1999 and 2002. The project site is currently used as a semiconductor manufacturing facility.

As a result of the historical operations, soil and groundwater are impacted by volatile organize compounds (VOCs) in the north and northwest portions of the project site.

Site Geology and Hydrogeological Conditions

Soil and groundwater conditions under the site are described in Section 5.6, *Geology and Soils*. Following is summary of conditions for context of the hazards discussion.

The site is northeast of the Newport-Inglewood fault zone and the Pelican Hill fault within the Pleistocene-age Newport Mesa Marine terrace. These terrace deposits are several hundred feet thick and overlie a suite of sedimentary bedrock units. The near surface soils (upper 50 feet) at the site typically consist of stiff to very stiff clays and silty clays with interbedded layers of sand, silty sand, and silts.

The site is within the San Diego Creek watershed. The underlying shallow aquifer system consists of perched water-bearing units within the marine terrace deposits. The water-bearing units typically contain brackish, hard water and are not used for domestic or agricultural purposes. The unsaturated zone underlying the site is generally defined as being from the ground surface to 15–30 feet below the ground surface (bgs). A shallow groundwater zone is then encountered at depths of 15–30 feet bgs to 35–45 feet bgs. Additional groundwater zones are located between the depths of 45–60 feet bgs and 140–225 feet bgs.

Previous and Ongoing Remediation Activities

As a result of the historical operations, soil and groundwater in the northern and northwest areas of the project site are impacted by VOCs from historical releases of chlorinated solvents from underground storage tanks (USTs). Solvents were detected in soil at the site in January 1984 during an investigation of a broken water line northwest of the TowerJazz building. The suspected source was two former solvent tanks located northwest of the TowerJazz building. This area has been the primary focus of historical and ongoing soil and groundwater investigation and remediation activities conducted under the oversight of the RWQCB. These remediation activities have resulted in reductions of chemical concentrations at the site and adjacent properties. Investigations and remediation activities are summarized below, and a timeline of environmental events on the site is presented in Table 5.7-1.

Table 5.7-1
Environmental History of Project Site

Year	Event
1969	Installation of a 300-gallon carbon steel waste solvent tank (UST No.1) north of the TowerJazz facility.
1973	Removal of UST No. 1 and installation of a 500-gallon carbon steel waste solvent tank (UST No. 2).
1976	Removal of UST No.2 and installation of a 1,500-gallon stainless steel tank (UST No. 3) at the same location.
1984	Initial discovery and investigation of release from waste solvent USTs.
	Installation of an SVE system consisting of 4 SVE wells; operated 1984–1986.
1985	Removal of UST No. 3 and installation of a 2,000-gallon stainless steel tank (UST No. 6) within a concrete vault immediately behind the TowerJazz facility.
	Removal of a fuel tank (UST No. 4) along the northern corner of the site.
	Removal of a waste solvent tank (UST No. 5) along the northwest corner of the TowerJazz facility.
	Removal of four underground diesel tanks (USTs 7 through 10) between the Half Dome building and the TowerJazz facility. Two of the tanks were 12,000-gallon capacity and two were 20,000-gallon capacity.
	A soil gas investigation was conducted near the TowerJazz facility.
1986	Groundwater extraction and treatment began at the site. The system removed groundwater from both the upper and intermediate aquifers between 1986 and 2004. A total of 736 million gallons of groundwater were reportedly removed and treated. Over 670 million gallons of municipal water was pumped into the upper and intermediate aquifers downgrade from the property to limit the further movement of groundwater contamination offsite, between 1996 and 2007.
1995	Exploratory borings and soil vapor probes were emplaced beneath and next to the TowerJazz facility as part of an investigation on the feasibility of a base isolation retrofit project.
1998	Soil sampling was conducted along the northwest property boundary wall.
	Soil sampling and excavation were conducted related to the seismic retrofit of the TowerJazz facility.
2001	A Phase I Environmental Site Assessment of the site was conducted by Clayton Group Services, Inc.
2004	Soil sampling was conducted next to the concrete vault containing UST No. 6.
2005	Removal of UST No. 6 and related soil sampling.
	A human health risk assessment was conducted for a proposed Phase 1 redevelopment of the site by Haley & Aldrich. The findings indicate that the site of Phase 1 of the proposed project may be developed with unrestricted residential development, assuming that onsite structures would be built above ventilated parking levels.
2008	A high vacuum SVE system was installed and began operation.
2010	Interim soil confirmation sampling was conducted to evaluate the effectiveness of the SVE.
	Implementation of an in situ chemical oxidation pilot study for groundwater remediation by Jacob & Hefner Associates, Inc.
	Soil and soil gas sampling was conducted as part of the Phase I Environmental Site Assessment (RM Environmental, see Appendix H). VOCs were not detected in any of the collected soil samples from 10 probes. VOCs were detected in soil gas samples. Benzene in levels above regulatory screening levels was detected in 7 gas probes, and vinyl chloride and trichlorethene in samples from 1 probe each. Samples were taken from 10 soil gas probes, 9 in site of Phase 2 of the project, and 1 in site of Phase 1. Findings are summarized in Section 5.7-3, *Environmental Impacts.*
2012	A vapor intrusion health risk assessment was prepared (Skinner Associates, see Appendix H), including 7 additional soil gas probes. Findings summarized in Section 5.7-3, *Environmental Impacts.*

Note: Removals of 10 historic USTs are mentioned in this table; all 10 USTs were within the Phase 2 area of the project site (see Figure 5.7-1).

Soil and Soil Vapor

Based on soil and soil vapor investigations, the highest VOC concentrations were in soil borings adjacent to the solvent tanks, and the highest concentrations of VOCs in soil vapor were identified north of the solvent tanks. The location of these former tanks is shown in Figure 5.7-1, *Location of Former Underground Storage Tanks.* A pilot soil vapor extraction (SVE) system was installed in October 1984, operated approximately two years, and removed an estimated 31,900 pounds of VOC.

Additional soil and soil vapor investigation activities were performed at the site in 2005 and 2006. VOCs were determined to be the primary constituents of concern at the facility. Based on investigations, a high-vacuum SVE and dual phase extraction pilot testing were proposed and completed in 2007. These were determined effective remedial technologies at the site, and a high vacuum SVE system was installed and began operating at the site in July 2008. This system utilizes 28 vapor extraction wells, and system optimization is performed on a weekly basis by opening or closing specific wells to assure maximum efficiency. As of February 2011, a cumulative total of 12,193 pounds of VOCs and total petroleum hydrocarbons have been removed by this system.

Groundwater

Groundwater monitoring wells were first installed at the site in September 1984, and the monitoring network has been expanded since that time. A hydrogeologic framework was developed consisting of a shallow groundwater zone, intermediate groundwater zone, and lower groundwater zone separated by clay and silty clay aquitards. Both the shallow zone and the intermediate zone have been impacted by VOCs, and groundwater remediation efforts have been ongoing since 1986. The remediation efforts and results are documented in a Comprehensive Groundwater Summary Report (JHA 2008), and annual groundwater and remediation progress reports are submitted to the RWQCB. The program has included groundwater extraction as well as recharge with municipal water in the intermediate zone to create a hydraulic barrier to mitigate the potential of site-related contaminants. Based on 2011 monitoring, *VOC Concentrations in Shallow Groundwater* are shown in Figure 5.7-2.

In Situ Chemical Oxidation Injection

In 2009, a revised corrective action plan for the site proposed the injection of a high-pH activated sodium persulfate as a method of ISCO to treat shallow zone groundwater within the “primary zone of residual impact.” Based on the results of sample testing, a revised corrective action plan treatability report was approved that included utilizing the ISCO treatment. This process was initiated at six injection wells in July 2010.

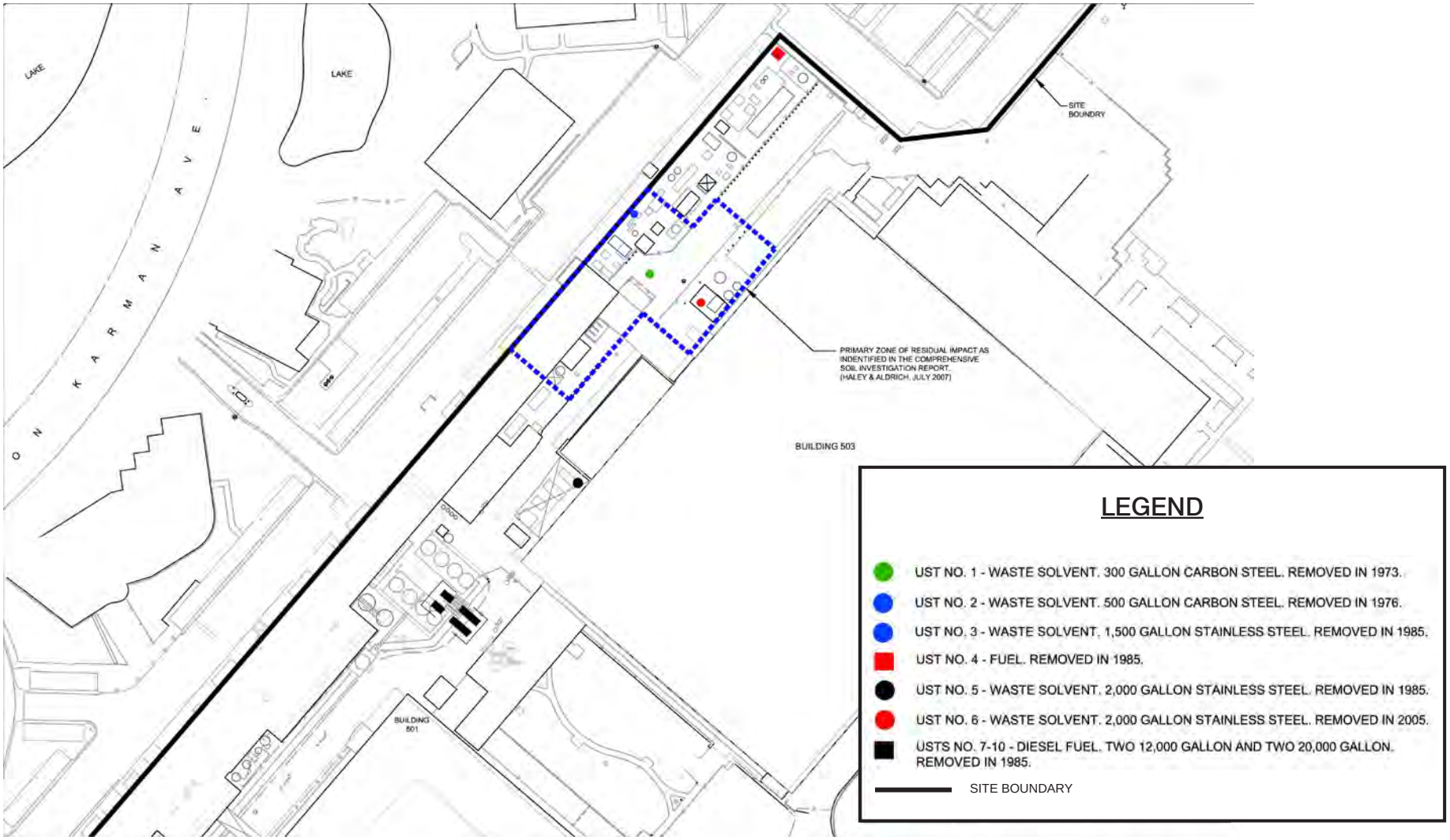
Hazardous Building Materials

Due to site security, inspection of the building interiors has not been conducted. Following is a description of the likely presence of hazardous building materials at the project site.

Asbestos

Asbestos is the name of a group of silicate minerals that are heat resistant and thus were commonly used as insulation and fire retardant. Inhaling asbestos fibers can cause lung disease (asbestosis) and lung cancer (mesothelioma; DTSC 2008). Given the age of the buildings onsite (between 1952 and 1965 for the Half Dome building, and between 1968 and 1972 for the TowerJazz facility), there likely are asbestos-containing materials (ACM) in the buildings. South Coast Air Quality Management District (SCAQMD) Rule 1403 requires an inspection of the buildings for ACM before the start of demolition and specifies procedures for abatement, containment, and disposal of ACM for demolition of structures containing 100 square feet or more of ACM. ACM could be present in the site of Phase 1 of the project (the Half Dome building) and the site of Phase 2 of the project (the TowerJazz facility).

Location of Former Underground Storage Tanks



Source: JHA Environmental Inc 2011

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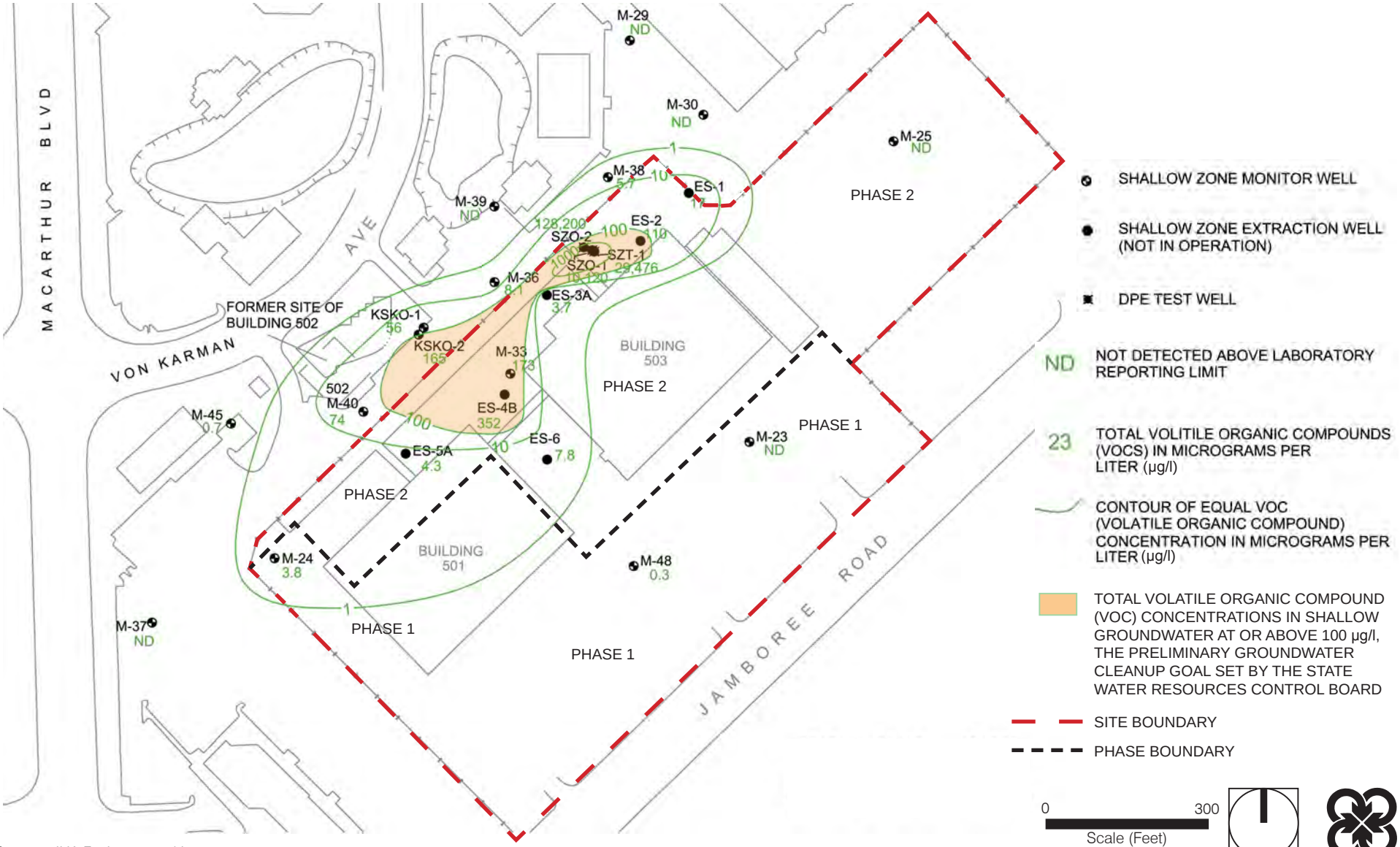
VOC Concentrations in Shallow Groundwater



Source: JHA Environmental Inc 2011

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Lead

Lead was used as an ingredient in paint before 1978 and as a gasoline additive; both of these uses have been banned. Lead is a reproductive toxin and a cancer-causing substance, and it impairs the development of the nervous system and blood cells in children (DTSC 2008). Lead must be contained during demolition activities (California Health & Safety Code sections 17920.10 and 105255), and anyone demolishing structures that are the age of the buildings onsite may presume they contain lead-based paint (LBP) without an inspection. LBP could be present in the site of Phase 1 of the project (the Half Dome building) and the site of Phase 2 of the project (the TowerJazz facility).

SCE Substation

An existing Southern California Edison (SCE) substation is located in the southern corner of the project site. According to the Phase 1 Environmental Site Assessment (ESA) prepared for Conexant Systems, Inc. (EORM, 2009) it is a 66 kiloVolt Amperes (kVA) ground substation that includes both Edison and Conexant (now Jazz) transformers. According to interviews conducted for the ESA, all of the units are believed to have been installed after 1980.

Potential Hazardous Materials

Electrical substations typically use, store and dispose of three types of hazardous materials:

- Dielectric fluid – contained in the transformers and used for insulation and cooling. Currently, the transformer oil is a highly refined hydrocarbon-based oil. Prior to the 1970s, dielectric fluids contained Polychlorinated Biphenyls (PCBs), toxic environmental contaminants. The USEPA banned the manufacture and sale of PCB-containing transformers in 1976.

- Lead-acid batteries used to provide backup power.

- Industrial gases – sulfur hexafluoride (SF_6) used as an insulator and arc suppressor in circuit breakers. Normally, it is contained in the equipment and it is relatively inert and non-toxic. Compressed nitrogen gas is used to maintain slight positive pressure on oil-filled equipment to keep out moisture that can cause damage. It is inert and non-toxic.

Electric and Magnetic Fields (EMF)

Electric and magnetic fields (EMF) are present wherever electricity flows, including transmission power lines, substations, underground cables, appliances, and home and office computer equipment. EMF diminishes rapidly with distance from the source. While there is ongoing debate over the possibility of a health hazard due to exposure to low-level EMF, the balance of the scientific evidence to date has not shown any adverse health impacts.

Regulatory Setting

Regulatory Database Listings

Onsite Listings

Soil and Groundwater Contamination: The project site is listed on the GeoTracker database maintained by the State Water Resources Control Board (SWRCB) as a leaking underground storage tank (LUST) cleanup site, and the case is open. Environmental investigations and cleanup onsite are summarized in Table 5.7-1

above. The SWRCB has established a preliminary groundwater cleanup goal of 100 μg/L, or 100 parts per billion, for total VOCs for the site.

Underground Storage Tanks: The environmental history of the site (Table 5.7-1) includes removal of 10 historic USTs. All 10 of the removed USTs were in the Phase 2 area of the project site. No known USTs currently exist on the project site.

Hazardous Waste Generation: The TowerJazz Semiconductor manufacturing operation in the Phase 2 portion of the site is listed by the US Environmental Protection Agency (EPA) as a large quantity generator of hazardous wastes, meaning that it generates over 100 kilograms (kg) per month of hazardous wastes, or 220 pounds. Wastes generated include batteries, lamps, ignitable hazardous waste, acidic waste, non-halogenated solvents (acetone, xylene, benzene, cresols, cresylic acid, nitrobenzene, pyridine, ethyl acetate, ethylbenzene, methyl ethyl ketone, n-butyl alcohol, cyclohexanone, methanol, and spent solvents), and metals (arsenic, barium, lead, mercury, and silver).

Offsite Listings

For the Phase I investigation, Environmental Data Resources, Inc. (EDR) performed a database review in accordance with ASTM E1527-05- Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process. The EDR environmental database reports are presented in Appendices E and F of the Phase I ESA (DEIR Appendix H). The findings reveal the following with respect to hazardous materials sites surrounding the Uptown Newport project site:

- There are no federal or Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) listed sites within 1 mile of the site.
- There is one federal CERCLIS NFRAP (No Further Action Required) site between 1/4 to 1/2 mile of the site.
- There are two federal (Resource Conservation and Recovery Act Corrective Action Sites (RCRA) Corrective Action (CORRACTS) reports between 1/4 to 1 mile of the site.
- There is one federal RCRA non-CORRACTS site listed between 1/4 and 1/2 mile of the site.
- There are no federal RCRA generators or Emergency Response Notification System (ERNS) sites listed within 1 mile of the site.
- There is 1 State/Tribal equivalent National Priority List (NPL) site within 1/2 to 1 mile of the site.
- There are 2 State/Tribal equivalent CERCLIS sites within 1/2 to 1 mile of the site.
- There is 1 State/Tribal landfill or solid waste disposal site listed within 1/4 to 1/2 mile of the site.
- There are 2 listed State/Tribal leaking storage tanks listed within 1/8 to 1/4 mile and 11 listed within 1/4 to mile of the site.
- There is 1 listed State/Tribal storage tank site within 1/8 to 1/4 mile of the site.
- There are no State/Tribal voluntary cleanup sites within 1 mile of the site.
- There are no US brownfield sites within 1 mile of the site.

- There are no toxic pit sites within 1 mile of the site.
- There were no emergency release reports or environmental lien properties within 1 mile of the site.
- There are two registered storage tanks within 1/8 to 1/4 mile of the site.
- There are 2 historic CORTESE sites within 118 to 114 mile and 6 historic CORTESE sites within 1/4 to 1/2 mile of the site.
- There is 1 dry cleaners site within 1/2 to 1 mile of the site.
- No known oil or gas wells are on record within 1 mile of the site;

Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the project site are summarized below.

Federal

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) is a law developed to protect the water, air, and soil resources from the risks created by past chemical-disposal practices. This law is also referred to as the Superfund Act and regulates sites on the National Priority List (NPL), which are called Superfund sites.

Emergency Planning and Community Right-To-Know Act

In 1986, Congress passed the Superfund Amendments and Reauthorization Act. Title III of this regulation may be cited as the "Emergency Planning and community Right-to-Know Act of 1986" (EPCRA). The Act required the establishment of state commissions, planning districts, and local committees to facilitate the preparation and implementation of emergency plan. Under the requirements, local emergency planning committees (LEPCs) are responsible for developing a plan for preparing for and responding to a chemical emergency, including:

- An identification of local facilities and transportation routes where hazardous materials are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting drills to test the plan.

The emergency plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The Orange County Environmental Health Department (EHD) is responsible for coordinating hazardous material and disaster preparedness planning and appropriate response efforts with city departments and local and state agencies. The goal is to improve public and private sector readiness and to mitigate local impacts resulting from natural or manmade emergencies.

Another purpose of the EPCRA is to inform communities and citizens of chemical hazards in their areas. Sections 311 and 312 of EPCRA require businesses to report to state and local agencies the location and quantities of chemicals stored onsite. Under section 313 of EPCRA, manufacturers are required to report chemical releases for more than 600 designated chemicals. In addition to chemical releases, regulated facilities are also required to report offsite transfers of waste for treatment or disposal at separate facilities, pollution prevention measures, and chemical recycling activities. The EPA maintains the Toxic Release Inventory database that documents the information that regulated facilities are required to report annually.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the principal federal law that regulates generation, management, and transportation of hazardous waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste.

Title 29, Code of Federal Regulations, Section 1926.62

Title 29, CFR Section 1926.62, sets forth standards for occupational health and environmental controls for lead exposure in construction, regardless of the lead content of paints and other materials. The standard includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation and monitoring.

State

Hazardous Materials Release Notification

Many state statutes require emergency notification of a hazardous chemical release:

- California Health and Safety Codes Sections 25270.8, and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673, (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5 (a)
- Water Codes Sections 13271, 13272,
- California Labor Code Section 6409.1 (b)10

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration pursuant to the California Labor Code Section 6409.1(b).

Hazardous Materials Disclosure Programs

The Unified Program administered by the State of California consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities for environmental and emergency management programs, which include: Hazardous Materials Release Response Plans and Inventories (business plans), the California Accidental Release Prevention (CalARP) Program, and the UST Program. The Unified Program is implemented at the local government level by Certified Unified Program Agencies (CUPAs).

The CUPA for the Newport Beach area is the Orange County Environmental Health Division (EHD), which is responsible for regulating hazardous materials business plans and chemical inventory; hazardous waste and tiered permitting; underground storage tanks; aboveground storage tanks; and risk management plans.

Hazardous Materials Business Plans

Both the federal government (Code of Federal Regulations) and the State of California (California Health and Safety Code) require all businesses that handle more than a specified amount—or "reporting quantity"—of hazardous or extremely hazardous materials to submit a hazardous materials business plan to its CUPA. According to the EHD guidelines, the preparation, submittal, and implementation of a business plan is required by any business that handles a hazardous material or a mixture containing a hazardous material in specified quantities.

Business plans must include an inventory of the hazardous materials at the facility. Businesses must update their business plan at least every three years and the chemical portion every year. Also, business plans must include emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. These plans need to identify the procedures for immediate notification of all appropriate agencies and personnel, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all company emergency coordinators, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

The EHD currently reviews submitted business plans and updates. Businesses that handle hazardous materials are required by law to provide an immediate verbal report of any release or threatened release of hazardous materials if there is a reasonable belief that the release or threatened release poses a significant present or potential hazard to human health and safety, property, or the environment. The EHD is also charged with the responsibility of conducting compliance inspections of regulated facilities in Orange County.

California Accidental Release Prevention Program

CalARP became effective on January 1, 1997, in response to Senate Bill 1889. CalARP aims to be proactive and therefore requires businesses to prepare risk management plans, which are detailed engineering analyses of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. This requirement is coupled with the requirements for preparation of hazardous materials business plans under the Unified Program, implemented by the CUPA.

Leaking Underground Storage Tanks

Leaking USTs have been recognized since the early 1980s as the primary cause of groundwater contamination from gasoline compounds and solvents. In California, regulations aimed at protecting against UST leaks have been in place since 1983 (Health and Safety Code). This occurred one year before RCRA was amended to add Subtitle I, requiring UST systems to be installed in accordance with standards that address the prevention of future leaks. SWRCB has been designated the lead California regulatory agency in the development of UST regulations and policy.

Older tanks are typically single-walled steel tanks. Many of these have leaked as a result of corrosion, punctures, and detached fittings. As a result, the State of California required the replacement of older tanks with new double-walled fiberglass tanks with flexible connections and monitoring systems. UST owners were given 10 years to comply with the new requirements—deadline was December 22, 1998. However, many UST owners did not act by the deadline, so the state granted an extension for their replacement ending

January 1, 2002. The California RWQCB, in cooperation with the Office of Emergency Services (OES), maintain an inventory of leaking USTs in a statewide database.

California Code of Regulations, Title 22, Division 4.5

Title 22, Division 4.5, of the California Code of Regulations (CCR) sets forth the requirements for hazardous-waste generators; transporters; and owners or operators of treatment, storage, or disposal facilities. These regulations include the requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste. These regulations specify the requirements for transporting shipments of hazardous waste, including manifesting, vehicle registration, and emergency accidental discharges during transportation.

California Fire Code

The 2010 California Fire Code (CCR Title 24 Part 9) sets forth requirements including those for building materials and methods pertaining to fire safety and life safety, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials.

California Building Code

CCR Title 24, Part 2, Section 907.2.11.2. Smoke alarms shall be installed and maintained on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms. In each room used for sleeping purposes, and in each story within a dwelling unit. The smoke alarms shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. Smoke alarms shall receive their primary power from the building wiring and shall be equipped with a battery backup.

California Health and Safety Code, Sections 17920.10 and 105255

Lead must be contained during demolition activities.

Regional

South Coast Air Quality Management District

SCAQMD Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing material. The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and cleanup procedures, and storage and disposal requirements for asbestos-containing waste materials.

Local

City of Newport Beach Fire Code

The 2010 California Fire Code sets forth requirements including those for building materials and methods pertaining to fire safety and life safety, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials. The City of Newport Beach adopted the 2010 California Fire Code and the 2009 International Fire Code, with certain amendments, additions, and deletions, as Chapter 9.04 of the Newport Beach Municipal Code. City Amendments to the Code include:

- **Sections 318.1 (Amendment).** A geological study from a state-licensed and department-approved individual or firm will be required due to the proximity of the proposed project to a semiconductor manufacturing facility.

- **Section 2704.1.1 (Amendment).** No person shall use or store any amount of extremely hazardous substances equal to or greater than the disclosable amounts as listed in Appendix A, part 355, Title 40 of the Code of Federal Regulation in a residential zone or adjacent to property developed with residential uses.

City of Newport Beach Fire Department Fire Prevention Guidelines

The NBFD Life Safety Division has set forth certain Fire Prevention Guidelines, including guidelines for fire flow, fire access, building construction, flammable and combustible liquids, and fire protection systems (NBFD 2012).

5.7.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

H-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area.

H-6 For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

H-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

H-8 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: H-1, H-3, H-5, H-6, H-7, and H-8. With the exception of H-1, these impacts will not be addressed in the environmental impact analysis in the following section. The Initial Study concluded that potential hazards to the public or the environment through the routine transport, use, or disposal of

hazardous materials would be less than significant. The assessment, however, focused on potential hazardous materials associated with construction activities and ongoing operations of the proposed development (primarily residential uses). The analysis below supplements the Initial Study analysis to also address potential hazards related to the routine use, disposal, and transport of hazardous materials associated with the TowerJazz manufacturing operation.

5.7.3 Environmental Impacts

A Phase I Environmental Site Assessment (ESA) was prepared for the proposed Phase 1 and Phase 2 residential development for the proposed project (RM Environmental 2010). The purpose was to assess the potential for the presence or likely presence of hazardous substances or petroleum products that indicate an existing release, a past release, or a material threat of a release of hazardous substances of petroleum products into structures on the property, or into the ground, groundwater, or surface water in connection with the property. Following is a description of the scope and findings of the ESA and the subsequent Vapor Intrusion Health Risk Assessment prepare for Phase 1 of the proposed project (Skinner 2012).

Phase I Environmental Site Assessment

The ESA investigation was conducted between May 17 and June 14, 2010. The scope of work included a field reconnaissance of the site, installation and sampling of soil gas probes, review of available geotechnical and environmental reports, record and document review, and historic map and aerial photo review. The analysis, as further described below, concludes that soil and groundwater are impacted by VOCs in the north and northwest portions of the site.

Soil gas probes were installed at 10 locations onsite on May 27, 2010. The locations of the gas probes are shown on Figure 5.7-3, *Soil Gas Probe Locations* (locations GP-1 through GP-10). Nine of the locations were within the Phase 2 area of the project site, and the tenth was within the Phase 1 area. Soil samples were collected during installation of the gas probes, and soil vapor samples were collected from the probes on May 28, 2010. Methods of construction of the gas probes and sampling of soil and soil vapors are described in the ESA (Appendix H). Soil and soil vapor samples were both tested for VOCs.

Soil VOCs

Soil samples were collected during installation of the gas probes on May 10, 2010. VOCs were not detected in the collected soils samples from any of the gas probes (GP-1 through GP-10).

Soil Gas VOCs

Two screening levels were used to gauge the concentrations of VOCs in soil gases: residential environmental screening levels (ESLs) set by the SWRCB, and California Human Health Screening Levels (CHHSLs) set by the California Office of Environmental Health Hazard Assessment. It is expected that ESLs would be used in evaluating hazards to the proposed residential uses from VOCs in soil gases and soil vapors. The only VOC detected above its respective ESL was benzene in nested soil gas probe GP-9 north of the Half Dome building. The detected VOCs above their respective CHHSLs were benzene in soil gas probes GP-2-S, GP-3-D, GP-6, GP-8-S, GP-8D, GP-9-S, and GP-9D; vinyl chloride in GP-9-D; and trichlorethene in GP-7. Concentrations of contaminants that exceeded the ESLs or CHHSLs are shown in Table 5.7-2. All soil samples yielding soil gas concentrations of VOCs above ESLs or CHHSLs were from probes in the Phase 2 area of the project site.

Table 5.7-2
Concentrations of Contaminants in Soil Gases above Regulatory Screening Levels

Contaminant	ESL	CHHSL	Concentrations above Screening Levels ($\mu g/m^3$)
Benzene	84	36.2	Ranged from 37 to 290. Concentrations from 7 samples from 6 probes were above CHHSL. (Samples were taken at up to 3 depths from each of 10 probes.) Concentrations of 190 and 290 in 2 samples (9-S and 9-D) from 1 probe were above ESL. (Probe 9 was one of the probes with concentrations above the CHHSL.)
Vinyl chloride	31	13.3	23 (probe 9-D): above CHHSL
Trichloroethene	1,200	528	700 (probe 7): above CHHSL

Source: Table 3, Phase I Environmental Site Assessment, RM Environmental, Inc. 2010.
Notes: All concentrations listed are in μg/m3.
All soil samples yielding soil gas concentrations of VOCs above ESLs or CHHSLs were from probes in the Phase 2 area of the project site.

Vapor Intrusion Health Risk Assessment (2012)

A Vapor Intrusion Health Risk Assessment (HRA) was completed by Skinner Associates to determine whether VOC contamination in soil and groundwater under the site of Phase 2 of the project could pose substantial health hazards to future residents in Phase 1 of the project. Since no significant subsurface soil contamination has been identified in the Phase 1 portion of the site and because the underlying groundwater in the vicinity of the site is not used for municipal purposes, the risk assessment focused on the potential for future residents to be exposed to VOCs through soil-gas vapor intrusion (e.g., the migration of volatile chemicals from the subsurface soil or groundwater that can enter into buildings). Human inhalation of vapors would be the pathway to exposure to these chemicals.

Soil Gas Vapor Intrusion Modeling

To evaluate the potential residential exposure of residents in the proposed buildings, soil-gas data from 17 soil probes were used to estimate vapor intrusion of 23 contaminants into buildings (see Figure 5.7-3, *Soil Gas Probe Locations*). The Cal/EPA Human and Ecological Risk Division soil-gas screen vapor intrusion model was used for the analysis. Two exposure scenarios were evaluated: exposure of persons to VOC vapors through concrete foundation slabs and exposure inside underground parking garages. The analysis was limited to the Phase 1 portion of the site and the model assumes the vapor intrusion zone of impact is within 100 feet of the source.

Risk Assessment and Results

For each chemical of concern, the health risk assessment evaluated both the maximum concentration detected and the 95 percent upper confidence limit (UCL) of the concentrations detected.

Carcinogenic Risk Assessment: A chemical is considered to be sufficiently toxic if the vapor concentration of a chemical of concern poses an incremental lifetime cancer risk greater than 1×10^{-6}, that is, greater than one in one million. Health risks were assessed by comparing concentrations detected to carcinogenic unit risks from Cal/EPA. Assessments of cancer risk were conducted for 8 of the 23 chemicals of concern for which Cal/EPA lists carcinogenic unit risks.

Noncarcinogenic Hazard Assessment: Noncarcinogenic hazards were assessed by comparing concentrations detected to reference concentrations (RfCs) and chronic reference exposure levels (cRELs) from the California Office of Environmental Health Hazard Assessment, and to values from the EPA's Integrated Risk Information System (IRIS). The detected value divided by the RfC, cREL, or value from IRIS yields a hazard index for that chemical. A concentration of a chemical of concern is considered to be an

acceptable risk if the noncancer hazard index is less than 1. The risk assessment involved adding the hazard indices for all 23 chemicals; noncarcinogenic hazards are considered less than significant if the total of the 23 hazard indices is less than 1.

Assessment Results and Conclusions: Carcinogenic risks and noncarcinogenic hazards identified in the risk assessment are listed in Table 5.7-3. As shown in the table, all cancer risks and noncarcinogenic hazards identified were below the respective thresholds of acceptable versus unacceptable risks or hazards. Development and occupancy of Phase 1 of the project would not expose future residents of Phase 1 to substantial hazards from soil vapors originating from soil and groundwater contamination under the Phase 2 portion of the project site.

Table 5.7-3
Risk Assessment Results and Conclusions:
Assessment of Vapor Intrusion Risks for Future Residents of Phase 1

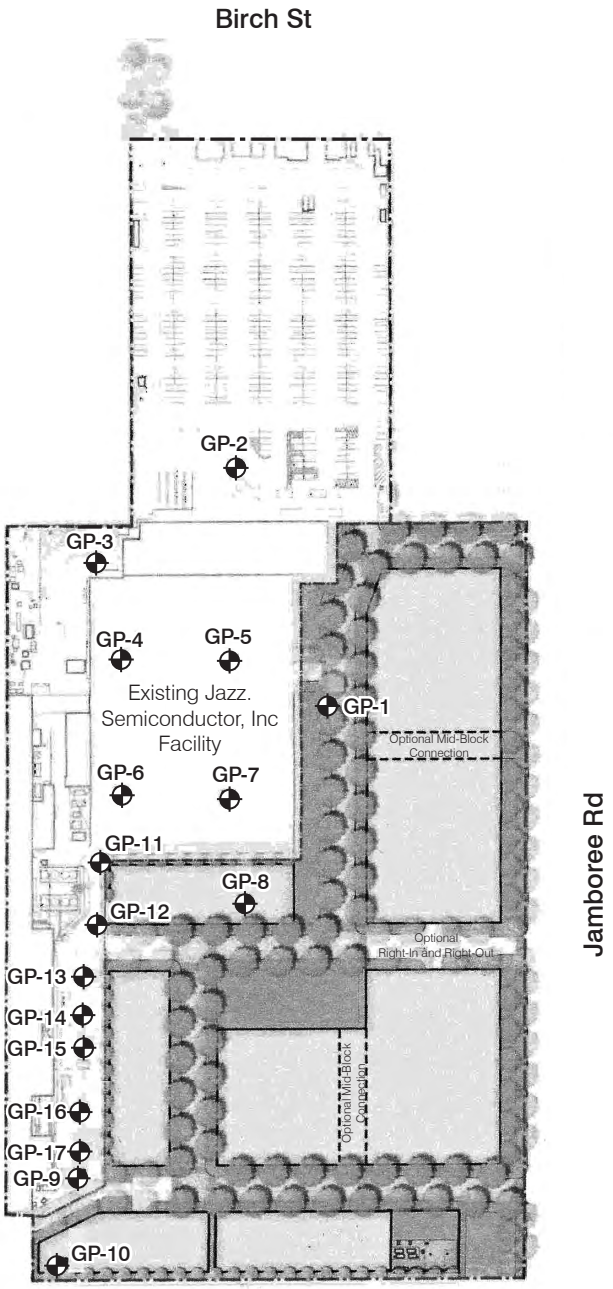
Exposure Scenario	Concentration Assessed	Risk/Hazard: Sampling Depth Assessed			Risk/Hazard Threshold	Conclusion (Risk)
		15 feet	10 feet	5 feet		
Cancer Risk						
Slab	95% UCL	3.69E-07	5.32E-07	9.56E-07	1.0E-06	Acceptable
Slab	Maximum	1.42E-06	2.01E-06	3.61E-06	1.0E-06	Acceptable
Garage	95% UCL	8.96E-07	2.34E-06	2.34E-06	1.0E-06	Acceptable
Garage	Maximum	4.24E-06	8.78E-6	8.78E-6	1.0E-06	Acceptable
Noncarcinogenic Health Hazard						
Slab	95% UCL	2.00E-03	2.89E-03	5.25E-03	1	Acceptable
Slab	Maximum	7.49E-03	1.73E-02	3.16E-02	1	Acceptable
Garage	95% UCL	4.97E-3	1.32E-2	1.31E-2	1	Acceptable
Garage	Maximum	2.78E-02	7.27E-02	7.27E-02	1	Acceptable

Offsite Consequence Analysis

An Offsite Consequence Analysis (OCA) was prepared to assess the potential impact of a chemical release from the TowerJazz facility to residents of Phase 1 of the Uptown Newport project. The study in its entirety is included in Appendix H. The objectives of the analysis were as follows:

- Identify and characterize the quantities and locations of hazardous chemicals stored at the TowerJazz facility;
- Determine the distance from the chemical storage locations to the nearest residences for Phase 1 of the Uptown Newport project;
- Conduct computer modeling using the EPA's Risk Management Program (RMP) or ALOHA computer program to determine worst-case accident release scenarios and alternative release scenarios and distances to the toxic endpoints;
- Determine potential impacts and safety risks at the nearest residential receptor;
- As appropriate, identify and develop mitigation measures to reduce risk to an acceptable level.

Soil Gas Probe Locations (GP-1 through GP-10)



Building Pad
Park Space
Site Boundary
Phasing Line
GP-1 Approximate Location of Soil Gas Probe

0 300
Scale (Feet)

Source: Skinner Associates 2012

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As per discussions with the City of Newport Beach, the methodology used included the following:

- Worst-case scenario: Analyzed using the EPA's computer model RMP*Comp, nighttime meteorological conditions (Stability Class F and wind speed of 1.5 m/sec), and instantaneous release from the largest container stored onsite. Passive mitigation measures, such as diked areas or releases within buildings, can be considered as per USEPA guidance.

- Alternative release scenario: Analyzed using RMP*Comp assuming daytime meteorological conditions (Stability Class D and wind speed of 3 m/sec) and ALOHA using nighttime meteorological conditions. Alternative release scenarios consider more realistic release scenarios, such as a break in the piping or tubing of the storage vessel, and active mitigation measures, such as automatic shutoff valves and/or water spray mitigation, can be considered as per EPA guidance.

- The impacts and risks to Phase 1 residential receptors were determined using the toxic endpoints specified in Appendix A to 40 CFR 68.

- Because sulfuric acid is not in the RMP*Comp database of chemicals, the worst-case and alternative-case scenarios for this chemical were analyzed, using the ALOHA computer program.

Regulatory Requirements

The City of Newport Beach adopted the 2010 California Fire Code and the 2009 International Fire Code, with certain amendments, additions, and deletions, as Chapter 9.04 of the Newport Beach Municipal Code. City amendments to the code include:

- Section 2704.1.1 (Amendment). No person shall use or store any amount of extremely hazardous substances equal to or greater than the disclosable amounts as listed in Appendix A, part 355, Title 40 of the Code of Federal Regulation in a residential zone or adjacent to property developed with residential uses.

Chemical Usage, Storage Location and Safety Provisions

There are five extremely hazardous substances that are stored in quantities above the reportable quantities (RQ):

- Anhydrous ammonia
- Boron trichloride
- Chlorine
- Hydrofluoric acid (49%)
- Sulfuric acid

These chemicals and current quantities are listed in Table 5.7-4, *Chemical Usage at TowerJazz.* The storage locations of the chemicals are shown in Figure 5.7-4, *Phase 1 Site Layout and Chemical Storage Locations.* Table 5.7-5, *Chemical Locations and Maximum Container Amounts,* provides the maximum container volumes used for the risk analysis as well the distances from each chemical to the nearest proposed project's Phase 1 residence.

Table 5.7-4
Chemical Usage at TowerJazz

Chemical Name	Storage Quantity (lbs)	Appendix A Reportable Quantity (lb)	Exceeds Newport Beach Municipal Code 2704-1-1
Anhydrous ammonia	9,713	100	Yes
Boron trichloride	1,540	500	Yes
Chlorine	990	10	Yes
Hydroflouric acid (49%)	3,588	100	Yes
Sulfuric acid	20,000	1,000	Yes

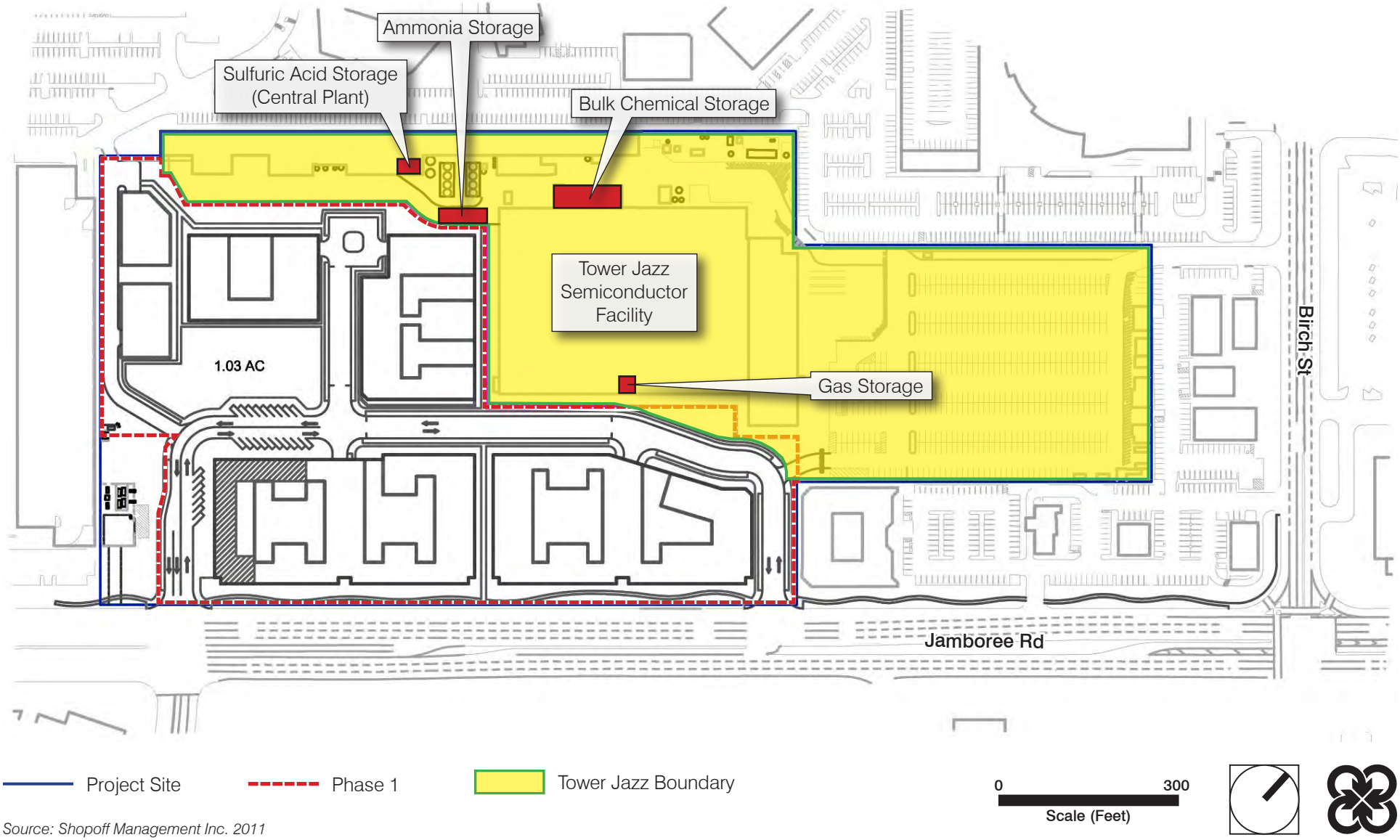
Table 5.7-5
Chemical Locations and Maximum Container Amounts

Chemical Name	Maximum Container Quantity (gallons)	Density (lb/gal)	Maximum Container Quantity (lbs)	Storage Location	Distance to Nearest Proposed Residence (ft)
Anhydrous ammonia	1,890	5.15	9,734	Outside enclosure south of cooling towers	5
Boron trichloride	--	--	110	Several locations on 2nd floor of fabrication building	110
Chlorine	--	--	110	Bulk chemical storage building - 2nd floor - gas room	190
Hydrofluoric acid 49%	211	9.6	2,026	Bulk chemical storage building - Bay 1	235
Sulfuric acid (93%)	2,000	15.3	30,600	Central plant	100

Numerous safety provisions are currently in place for the chemicals and are detailed in the OCA (Appendix H). Existing mitigation safeguards vary for each chemical, but for example include the measures for anhydrous ammonia:

- A water spray mitigation system
- Alarms, pressure relief valves, excess flow valves, and emergency block valves to prevent or limit the severity of a release
- Ammonia leak detection system with audible and security center alarms
- The outdoor enclosure is protected by closely spaced traffic posts to prevent delivery trucks from accidentally backing into the tank area
- Emergency shut-off panels

Phase 1 Site Layout and Chemical Storage Locations



Source: Shopoff Management Inc. 2011

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Offsite Consequence Analysis Methodology

The US Environmental Protection Agency's RMP and the California Accidental Release Prevention (CalARP) Program require OCAs to have two elements: 1) a worst-case release scenario, and 2) an alternative release scenario. The worst-case scenario is defined as a release from the largest quantity of a regulated substance from a single vessel or process unit that results in the greatest distance to a toxic or flammable endpoint. Alternative release scenarios are scenarios that are more likely to occur than the worst-case scenario. Modeling assumptions and meteorological conditions that must be used in conducting the OCA are specified in the California Code of Regulations (CCR), Title 19, Chapter 4.5, Article 2735.1 et seq.

As per the CalARP program and EPA RMP guidance, worst-case scenario assumptions were used in the analyses (see OCA, Appendix H, for detailed assumptions).

For estimating release rates from the chemical solutions that are stored at the TowerJazz facility, the procedures described in the EPA's *Risk Management Program Guidance for Offsite Consequence Analysis (*Exhibit B-3*)* were used. Only the first 10 minutes of the release were considered in the analysis, as per the EPA guidance. The toxic component in the solution evaporates fastest during the first few minutes of a spill when its concentration is highest. Although the toxic substance will continue to evaporate from the pool after 10 minutes, the rate of evaporation is so much slower than it can be safely ignored in estimating the consequence distance.

Alternative release scenarios were based on more likely accident occurrences, such as a release from a hole in a vessel or piping. Active mitigation measures, such as automatic shut-off valves or water spray mitigation, can also be considered in developing the alternative scenario. The assumptions used for the alternative release scenarios are detailed in the OCA (Appendix H).

For worst-case scenarios, the EPA computer model RMP*Comp was used, except for the evaluation of sulfuric acid. The RMP*Comp program does not contain sulfuric acid in its database; therefore, the USEPA ALOHA was used for this chemical. For alternative release scenarios, both the computer programs RMP*Comp and ALOHA were used.

The toxic endpoints listed in Appendix A of 40 CFR 68 were used to determine safe distances for this analysis. The toxic endpoints are either 1) the Emergency Response Planning Guideline 2 (ERPG-2), which is defined as the maximum airborne concentration below which it is believed that nearly all individuals could be exposed for up to one hour without experiencing or developing irreversible or other serious health effects or symptoms that could impair an individual's ability to take protective action, or 2) Level of Concern (LOC) derived for extremely hazardous substances. The toxic endpoints established by CalARP and EPA that were used in the analysis are as follows:

- Anhydrous ammonia – 200 ppm (ERPG-2)
- Boron trichloride – 2 ppm (LOC)
- Chlorine – 3 ppm (ERPG-2).
- Hydrofluoric acid (49%) – 20 ppm (ERPG-2)
- Sulfuric acid – 10 mg/m^3 (ERPG-2)

Offsite Consequence Analysis Results

The results of the OCA analyses are summarized in Table 5.7-6, Offsite Consequence Analysis Results

Table 5.7-6
Offsite Consequence Analysis Results

Chemical	Anhydrous Ammonia	Boron Trichloride	Chlorine	Hydrofluoric Acid	Sulfuric Acid
Distance to Nearest Residential Receptor (ft)	5	110	190	235	100
RMP*Comp Worst-case Analysis – Distance to Toxic Endpoint (ft)	6,336	3,696	1,056	6,336	252
Toxic Endpoint Exceeded at Residential Receptor?	Yes	Yes	Yes	Yes	Yes
RMP*Comp Alternative Release Analysis – Distance to Toxic Endpoint (ft)	<528	528	<528	528	--
Toxic Endpoint Exceeded at Residential Receptor?	Yes	Yes	Yes	Yes	--
ALOHA Alternative Release Analysis – Distance to Toxic Endpoint (ft)	192	84	<33	81	57
Toxic Endpoint Exceeded at Residential Receptor?	Yes	No	No	No	No

The following impact analysis addresses thresholds of significance for potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement. The following impacts address the potential release of chemical stored at the TowerJazz facility, hazards associated with previous groundwater and soil contamination, and hazards associated with the demolition of onsite structures that may involve hazardous building materials. Hazards from release of hazardous materials into soil or groundwater are discussed below under Phase 2. Hazards from release of air emissions associated with the operation of the TowerJazz facility are addressed in Section 5.2, *Air Quality*.

IMPACT 5.7-1: ***PRIOR TO THE DEMOLITION OF THE TOWERJAZZ MANUFACTURING FACILITY IN PHASE 2 OF THE PROJECT, RESIDENTS OF PHASE 1 OF THE PROJECT COULD BE AT RISK FROM AN ACCIDENTAL RELEASE OF CHEMICALS STORED AT THE TOWERJAZZ FACILITY. [H-2]***

Impact Analysis:

Phase 1

The existing TowerJazz manufacturing facility would remain operational after Phase 1 of the project (including 680 residential units and up to 11,500 square feet retail use) is developed and occupied. Phase 1 is anticipated to be available for occupancy as early as 2014, and although Phase 2 is proposed to be initiated in 2017 at the termination of TowerJazz's existing lease, the lease could be extended to 2027. Phase 1 residents, therefore, could be exposed to potential chemical-related hazards of the TowerJazz operation for up to 13 years.

The findings of the OCA analysis (see Table 5.7-6) indicate that for the worst-case scenario, the toxic endpoints would extend to the residential receptors in Phase 1 for each of the chemicals analyzed. This scenario, however, is very conservative for the following reasons:

- No credit was taken in the analyses for active mitigation measures or safety features such as automatic sprinkler system, toxic gas monitoring system (TGMS), and automatic control valves
- The analyses do not consider the probability of the release occurring
- It is assumed that the wind would be blowing directly toward the receptor; wind rose data for the nearest meteorological station (Costa Mesa) indicate that the prevailing wind is from the southwest
- Residents typically would be indoors during nighttime hours (Stability Class F conditions)

The alternative release scenarios indicate that the toxic endpoints would not extend to the Phase 1 residential receptors, with the exception of anhydrous ammonia. At its current location the anhydrous ammonia tank is five feet from the nearest proposed Phase 2 residence.

Phase 2

This impact is not applicable to Phase 2 of the project. Phase 2 would involve the demolition of the TowerJazz facility. Phase 2 residents and visitors, therefore, would not be impacted by potential chemical releases associated with this facility.

IMPACT 5.7-2: ***PROJECT DEVELOPMENT, INCLUDING SOIL DISTURBANCE FROM SITE GRADING AND CONSTRUCTION ACTIVITIES, COULD POSE SUBSTANTIAL HAZARDS TO PEOPLE OR THE ENVIRONMENT THROUGH THE RELEASE OF HAZARDOUS MATERIALS. [THRESHOLD H-4]***

Impact Analysis:

This section addresses the potential for site activities to disturb contaminated soil and/or shallow groundwater, resulting in a release of hazardous materials.

Phase 1

The Phase 1 portion of the project site is not listed in environmental databases searched as part of the ESA for the project. As shown on Figure 3-7, *Conceptual Grading and Earthwork: Phase 1 and Phase 2,* grading for Phase 1 would not encroach into the Phase 2 portion of the project site. There would be no disturbance of the TowerJazz facility, the former location of solvent tanks, or contaminated soils (see Figure 5.7-1, *Location of Former Underground Storage Tanks*).

Based on ESA and vapor intrusion studies, potential sources of contamination in the Phase 1 portion of the site are limited to the migration of VOCs in soil gas and groundwater from the former UST areas in the Phase 2 portion of the site.

With respect to groundwater, prior to 1991, the apparent direction of groundwater flow of the upper aquifer beneath the site was to the southeast. Since 1991, the apparent direction of groundwater of the upper aquifer has been toward a residual groundwater depression area between the Half Dome and TowerJazz buildings in the Phase 2 area of the site. In general, the areas of concern (>100 ppb total VOCs) of the upper aquifer have remained in the general vicinities of the former source areas (USTs).

The detected VOC concentrations in the upper groundwater zone continue to decrease. As part of the conditions for Phase 1 development, the RWQCB would require continued monitoring and sampling of

selected wells in the Phase 1 portion of the site. Additional groundwater remediation is scheduled for the Phase 2 portion of the site within the next one to two years. In the unlikely event that additional VOC migration were to occur from the Phase 2 area to the Phase 1 portion of the site, in situ groundwater mitigation could effectively be conducted.

Phase 2

Although soil and groundwater remediation activities are ongoing (SVE and in situ chemical oxidation), contaminated soil and groundwater are still present within the Phase 2 area of the project site. The lead oversight agency for the remediation is the California RWQCB. Phase 2 development could not occur until the RWQCB provides a "No Further Action" (NFA) declaration or a Letter of Allowance for residential construction. Phase 2 development, including ground disturbance that could impact Phase 1 residences, could not occur without the approval and oversight of the RWQCB.

IMPACT 5.7-3: ***DEMOLITION OF ONSITE BUILDINGS COULD RESULT IN A HEALTH RISK DUE TO THE RELEASE OF HAZARDOUS BUILDING MATERIALS, INCLUDING ASBESTOS AND LEAD PAINT. [THRESHOLD H-4]***

Impact Analysis:

Phase 1

Due to site security, the interiors of the onsite buildings have not been inspected. Given the age of the buildings, there are likely both asbestos-containing materials and lead-based paint in the buildings. The Half Dome building (constructed between 1952 and 1965), would be demolished as part of Phase 1. Demolition of the building could disturb ACM and/or LBP. The building, therefore, would require inspection for these materials prior to demolition, and ACM in amounts over 100 square feet must abated, contained, and disposed in accordance with SCAQMD Rule 1403. Lead must also be contained during demolition activities.

Phase 2

The TowerJazz building would be demolished prior to development of Phase 2 improvements. This building was constructed between 1968 and 1972 and likely contains ACM and/or LBP. As with Phase 1, prior to demolition, this building would be inspected for these materials, and appropriate abatement and disposal would be conducted in accordance with SCAQMD regulations.

IMPACT 5.7-4: ***FUTURE RESIDENTS AND VISITORS OF PHASE 1 OF THE PROJECT WOULD NOT BE EXPOSED TO UNACCEPTABLE LEVELS OF VOCS AS A RESULT OF VAPOR INTRUSION INTO BUILDINGS. THE HEALTH RISK ASSOCIATED WITH POTENTIAL SOIL VAPOR INTRUSION OF VOCS FOR FUTURE PHASE 2 RESIDENTS IS UNDETERMINED. [THRESHOLD H-4]***

Impact Analysis:

Phase 1

Based on the analysis and findings in the ESA, the Phase 1 portion of the site has not been significantly impacted by subsurface soil and groundwater contamination. Prior usage of the Phase 1 portion of the site has been limited to open parking space, landscape areas, and an office/administrative building. Manufacturing, chemical handling operations, and storage of hazardous materials have not occurred in this

portion of the project site. Potential sources of contamination of the Phase 1 portion have been identified to be limited to the migration of VOCs in soil gas and groundwater from the former UST areas in the Phase 2 portion of the site.

For Phase 1, basement parking depths are anticipated to be 5 to 18 feet below the existing grade. Proposed residential dwellings and retail commercial development are to be located above the subsurface parking garages or at elevations above the existing grades at the site. Based on the anticipated subgrade elevations for the parking, 5-, 10-, and 15-foot sampling depths were used in the vapor intrusion modeling. Soil-gas samples were collected from both nested and single-well soil gas probes located in the perimeter area of the contaminated soil and groundwater in the Phase 2 portion of the site. Probe locations were selected to represent the highest potential source of contamination from the Phase 2 area.

Based on the 95 percent UCL soil-gas concentrations of VOCs, the estimated vapor intrusion risk and hazards in the proposed subsurface parking garages and for proposed structures constructed at or above the existing grades are below the acceptable risk and hazard limits for residential exposure. The vapor intrusion HRA concludes that residents and visitors of the Phase 1 development as proposed would not be exposed to unacceptable levels of VOCs as a result of vapor intrusion into buildings.

Phase 2

The vapor intrusion HRA was limited to Phase 1 of the proposed project. As noted above for Impact 5.7-1, contaminated groundwater and soil are still present under the Phase 2 portion of the project site. The ESA concluded that potential soil vapor intrusion of VOCs north and northwest of the TowerJazz building would be a significant concern for development of Phase 2. Following ongoing and future remediation activities, Phase 2 development could not occur until the RWQCB provides a “No Further Action” declaration or a Letter of allowance for residential construction. Depending on the risk levels present after SVE and ISCO treatments, it would be determined whether excavation and removal of contaminated soils is necessary. Such excavation would occur after demolition of the TowerJazz building.

IMPACT 5.7-5: THE EXISTING SCE SUBSTATION MAY PRESENT HEALTH HAZARDS RELATED TO ELECTRIC AND MAGNETIC FIELDS (EMF) AND/OR UPON DEMOLITION, RELEASE OF HAZARDOUS MATERIALS. [THRESHOLD H-2]

Impact Analysis:

Phase 1

Phase 1 resident could be exposed to EMF. The strongest EMF associated with a substation comes from the transmission power lines entering and leaving the substation. The strength of EMF within the substation, such as transformers, reactors, and capacitor banks, decreases rapidly with increasing distance. Beyond the substation fence or wall, the EMF produced by substation equipment typically is indistinguishable from background levels (National Institute of Environmental Health Sciences, 1995). California does not have specific regulations regarding electrical effects from transmission lines or substations. However, the California Department of Education (CDE) has established setback distances of 100 feet from 50 to 133 kV transmission power lines for new school siting. Conservatively assuming this standard to be applicable to a power substation, which should have much lower EMF levels, the nearest Phase I residence would be approximately 135 feet from the substation, which is beyond the setback distance of 100 feet. Therefore, no adverse health impacts should occur to residents in the Phase I development from EMF associated with the power substation.

Phase 2

The SCE Substation would be demolished as part of Phase 2 development. Since the substation will cease to operate, EMF will not pose a health risk to surrounding residents during Phase 2.

Potential wastes generated during demolition include transformer oil, sulfur hexafluoride (SF_6) battery acid, minor maintenance chemicals (paint, lubricants, gases) waste transformer oil, oily debirs, minor trash and metal scrap. Although not believed to be constructed prior to 1980, if any of the transformers were constructed prior to the 1980s, they could potentially contain PCBs and any structures could contain lead-based paint and/or asbestos. In addition, according to the ESA prepared for Conexant, no PCB-containing or potentially PCB-containing light ballast are believed to remain onsite due to maintenance and replacement schedules.

5.7.4 Cumulative Impacts

Hazardous Material Sites

The foremost "recognized environmental condition" onsite is groundwater contamination; thus, the area considered for cumulative hazardous materials impacts is the area over the Main Orange County Groundwater Basin and the Irvine Subbasin, which is part of the main basin.

Numerous other groundwater contamination sites in the basin are known to the SWRCB and other regulatory agencies. As with the proposed project, these projects would be required to conduct Phase I ESAs—and Phase II ESAs and health risk assessments as needed—to determine the risks that grading and construction activities could encounter contaminated soil and groundwater, and what risks such contamination could pose to persons and to the environment on and near those project sites. Other projects would be required to remediate groundwater and soil contamination to cleanup goals set by regulatory agencies before those agencies would approve new developments or redevelopments on contaminated sites.

TowerJazz Chemical Storage Hazards

The OCA was prepared to analyze the potential impact of TowerJazz facility chemical releases to future residences of Uptown Newport Phase 1. Potential chemical releases could also potentially impact residences of other future residences within the project vicinity. As described in Section 3.2.2 *Related Development Proposals,* and as shown conceptually on Figure 3-5, *Integrated Conceptual Development Plan,* up to 260 residential units are proposed for the 12.7-acre Koll property north of the Uptown Newport project site. Based on the most recent site plan submitted to the City (dated August 8, 2011) for the Koll project, the closest residential uses would be located approximately 800 feet from the nearest bulk chemical storage area and approximately 1,000 feet from the anhydrous ammonia tank. As currently proposed, therefore, the residences would be beyond the 192-foot toxic endpoint for anhydrous ammonia and well beyond the shorter distance toxic endpoints (for the alternative release scenarios) for the other hazardous chemicals stored at the TowerJazz facility.

5.7.5 Existing Regulations and Standard Conditions of Approval

Regulations

As described in detail in Section 5.7.1, the following regulations apply to the project.

Federal

- Resource Conservation and Recovery Act (United States Code Title 42, Sections 6901 et seq.)
- Superfund Amendments and Reauthorization Act (United States Code Title 42, Sections 9601 et seq.).
- Lead exposure: standards for occupational health and environmental controls (Title 29, Code of Federal Regulations Section 1926.62).

State

- Underground Storage Tank regulations (California Code of Regulations Title 23 Sections 2610 et seq.)
- Hazardous Waste Generators regulations (California Code of Regulations, Title 22, Division 4.5)
- Lead containment (California Health and Safety Code Sections 17920.10 and 105255)
- California Fire Code (California Code of Regulations, Title 24, Part 9)
- California Building Code (California Code of Regulations, Title 24, Part 2)

Regional and Local

- Orange County Environmental Health Division: Certified Unified Program Agency
- Asbestos and Building Demolition: SCAQMD Rule 1403.
- City of Newport Beach Fire Code (City Municipal Code Chapter 9.04)
- City of Newport Beach Fire Department Guidelines (specified in Section 5.7.1)

City of Newport Beach Standard Conditions of Approval

The project would be subject to compliance with the Newport Beach Fire Department Guidelines and City of Newport Beach Fire Code (City Municipal Code Chapter 9.04). Specific Conditions of Approval pursuant to these requirements would be specified by the Newport Beach Fire Department, and would include compliance with the following California Fire Code (CFC) requirements:

- Sections 318.1 (Amendment). A geological study from a state-licensed and department-approved individual or firm will be required due to the proximity of the proposed project to a semiconductor manufacturing facility.
- Section 2704.1.1 (Amendment). No person shall use or store any amount of extremely hazardous substances equal to or greater than the disclosable amounts as listed in Appendix A, part 355, Title 40 of the Code of Federal Regulation in a residential zone or adjacent to property developed with residential uses.

5.7.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.7-1 (Phase 2), 5.7-3.

Without mitigation, the following impacts would be **potentially significant**:

- **Impact 5.7-1**

Phase 1:

Based on the OCA analysis, occupants of the Phase 1 development would be within the 192-foot distance to the toxic endpoint of a chemical release (alternative scenarios) of anhydrous ammonia at its current storage location. Additionally, at this time the proposed project would not comply with the following City of Newport Beach CFC requirement since anhydrous ammonia, boron trichloride, chlorine, hydrofluoric acid, and sulfuric acid are currently stored at amounts exceeding the reporting thresholds for these chemicals:

- Section 2704.1.1 (Amendment). No person shall use or store any amount of extremely hazardous substances equal to or greater than the disclosable amounts as listed in Appendix A, part 355, Title 40 of the Code of Federal Regulation in a residential zone or adjacent to property developed with residential uses.

Cumulative impacts could also be potentially significant depending on the final site plan for residential uses within the proposed Koll property adjacent to the Uptown Newport project site.

- **Impact 5.7-2**

Phase 1:

Based on conclusion in the ESA and Vapor Intrusion HRA, contamination of the Phase 1 portion of the site is limited to potential migration of VOCs from the Phase 2 portion of the site. VOC migration impacts are detailed in Impact 5.7-4. At the time of preparation of this Draft EIR, however, the Phase 1 HRA is pending final review by the RWQCB, the agency with oversight for the remediation of the TowerJazz site contamination. This impact, therefore, is considered potentially significant until a “No Further Action” declaration or a Letter of Allowance for residential construction for Phase 1 is provided by the RWQCB.

Phase 2:

Soil disturbance from site grading and construction activities within the Phase 2 portion of the site could result in the release of hazardous materials that could impact Phase 1 residents and nearby office occupants. Phase 2 development could not occur until the RWQCB provides a “No Further Action” declaration or a Letter of Allowance for residential construction.

- **Impact 5.7-3**

Phase 1 and Phase 2:

Demolition of onsite buildings could result in a health risk due to the release of hazardous building materials, including asbestos and lead paint.

- **Impact 5.7-4**

Phase 1:

Based on the conclusions in the vapor intrusion HRA prepared for Phase 1, future residents of Phase 1 would not be exposed to unacceptable levels of VOCs as a result of vapor intrusion into buildings or parking garages. Phase 1 development, however, could not occur until the RWQCB, as lead oversight for the remediation of the project site, has cleared the site for residential development. This impact, therefore, is considered potentially significant until a “No Further Action” declaration or Letter of Allowance for residential construction for Phase 1 is provided by the RWQCB.

Phase 2:

Contaminated groundwater and soil are still present under the Phase 2 portion of the project site, and soil-gas sampling results indicate VOC levels above acceptable health risk screening levels. The ESA concluded that potential soil vapor intrusion of VOCs north and northwest of the TowerJazz building would be a significant concern for development of Phase 2 and recommended additional soil-gas characterization of the site.

- **Impact 5.7-5**

  Potential EMF risks due to the SCE substation would be less than significant. Without mitigation, however, potential risks associated with hazardous materials upon demolition of the substation could be significant.

5.7.7 Mitigation Measures

Impact 5.7-1

Phase 1

7-1 In compliance with CFC Section 381.1 (Amendment), prior to issuance of building permits for Phase 1, the project applicant shall submit a geologic study from a state-licensed and department-approved individual or firm to the Newport Beach Fire Department Fire Prevention Division for review and approval (due to the proximity of the proposed project to a semiconductor facility).

7-2 Prior to issuance of any building permit for Phase 1, the applicant shall demonstrate compliance with CFC Section 27041.1 (Amendment), which prohibits the storage of any amount of extremely hazardous substances equal to or greater than the disclosable amounts listed in Appendix A, Part 355, Title 40, of the Code of Federal Regulations in a residential zone or adjacent to property developed with residential uses. Compliance shall be demonstrated to the satisfaction of the Newport Beach Fire Department and shall include the following[1]:

- Installation of a new anhydrous ammonia tank at a minimum distance of 200 feet from the nearest existing or proposed residential structure (including the adjacent Koll property project). The new tank shall be approved by the Newport Beach Fire Department, and the tank and installation shall include mitigation safeguards such as: automatic shut-off valves, excess flow valves, restrictive flow orifices, toxic gas detection system, automatic sprinkler system, water deluge system, alarm system, and double containment piping. An updated Offsite Consequence Analysis (OCA) shall be prepared to the satisfaction of the Fire Department prior installation of the new tank.

- In the event a new anhydrous ammonia tank is not installed or the existing tank relocated, no residential structures shall be constructed within 200 feet of the anhydrous ammonia tank.

- Demonstration of maintenance of industry best practices and provision of minimum EPGR-2 separation distances as defined by the EPA for any extremely hazardous substances (EHS) in

[1] Per City of Newport Beach Fire Code Section 104.1 General: The fire code official is hereby authorized to enforce the provisions of this code and shall have the authority to render interpretations of this code, and to adopt policies, procedures, rules and regulations in order to clarify the application of its provisions. Such interpretations, policies, procedures, rules and regulations shall be in compliance with the intent and purposed of this code and shall not have the effect of waiving requirements specifically provided for in this code.

excess of disclosable amounts. The use of the term "adjacent to" (per CFC Section 27041.1 (Amendment) shall be interpreted to be a greater distance than an offsite consequence analysis would require as a safe EPGR-2 (or an equivalent and accepted standard) separation distance (ibid)..

7-3 Prior to the issuance of occupancy permits, the applicant shall demonstrate to the satisfaction of the City of Newport Beach Fire Department that the following disclosures and emergency notification procedures/programs are in place:

- Disclosure to potential Uptown Newport residences that hazardous chemicals are used and stored at the adjacent TowerJazz facility.
- Inclusion of property manager or authorized representative of the Uptown Newport residential community to the emergency notification list of the TowerJazz Business Emergency Plan.
- Program to inform/train the property manager or authorized representative of the Uptown Newport residential community in emergency response and evacuation procedures and to incorporate ongoing coordination between the Uptown Newport representative and TowerJazz to assure proper action in the event of an accident at the facility (shelter in place and/or evacuation routes).
- Upgrade TowerJazz emergency alarm system to include concurrent notification to Uptown Newport residents of chemical release. Provisions of the alarm system and emergency notification procedure shall be reviewed and approved by the City of Newport Beach Fire Department.

7-4 Prior to the introduction of a new extremely hazardous substance (EHS) or increase in quantity of any existing EHS at TowerJazz, an updated OCA shall be prepared and reviewed and authorized by the City of Newport Beach Fire Department. Any new EHS shall be appropriately located and the installation designed with all necessary mitigation safeguards specified by the City of Newport Beach Fire Department.

Impact 5.7-2

Phase 1

7-5 Prior to the issuance of building permits for development within Phase 1, the project applicant shall obtain a "No Further Action" declaration or Letter of Allowance for residential construction for Phase 1 from the Regional Water Quality Control Board.

Phase 2

7-6 The project applicant shall submit copies of applicable reports and plans as submitted to the RWQCB for remedial activities within the Phase 2 portion of the project site to the City of Newport Beach Community Development Department. Such copies shall include remediation action plans and annual soil and groundwater remediation progress reports.

7-7 Prior to the issuance of building permits for development within Phase 2, the project applicant shall obtain a "No Further Action" declaration or Letter of Allowance for residential construction for Phase 2 from the Regional Water Quality Control Board.

Impact 5.7-3

Phase 1 and Phase 2

7-8 Prior to issuance of demolition permits, the project applicant shall have the following inspections and assessments conducted for the Half Dome building (Phase 1) and TowerJazz building (Phase 2) and shall provide the Community Development Department with a copy of the report of each investigation or assessment.

- The applicant shall retain a certified lead inspector/assessor to inspect buildings onsite including any structures at the SCE substation for lead-based paint (LBP). The inspector/assessor's report shall describe regulatory requirements for lead containment applicable to any LBP discovered onsite.

- The applicant shall retain a licensed or certified asbestos consultant to inspect buildings onsite including any structures at the SCE substation for asbestos-containing materials (ACM). The asbestos consultant's report shall include requirements for abatement, containment, and disposal of ACM in South Coast Air Quality Management District Rule 1403.

Impact 5.7-4

Phase 1

Mitigation Measure 7-3 also applies to Impact 5.7-4.

Phase 2

7-9 Prior to the issuance of building permits for Phase 2, the project applicant shall retain a registered environmental assessor or other professional qualified to conduct a human health risk assessment (HHRA) of potential volatile organic compound contamination. The HHRA shall be conducted under the guidance and review of the Regional Water Quality Control Board. Approval of tentative tract map(s) for Phase 2 shall not occur until the project applicant obtains a "No Further Action" declaration or a Letter of Allowance for residential construction from the Regional Water Quality Control Board.

7-10 Prior to issuance of a building permits for Phase 2 development, the project applicant shall demonstrate to the Community Development Department that contamination in soil and groundwater on Phase 2 has been remediated to meet the cleanup goal for the site for total volatile organic compounds set by the State Water Resources Control Board and shall have obtained a "No Further Action" declaration or Letter of Allowance for residential construction from the Regional Water Quality Control Board.

Impact 5.7-5

Phase 2

Mitigation Measures 7-9 and 7-10 also apply Impact 5.7-5.

7-11 Prior to the issuance of demolition permits for Phase 2, the construction dates for the SCE Substation shall be confirmed. If the facility was constructed prior to the 1980's, a certified inspector approved by the City of Newport Beach Fire Department shall be retained to test for PCBs and related hazardous materials. If PCBs or other hazardous materials are determined to be present, a mitigation program to abate, contain and dispose of the materials shall be prepared and approved by the City Fire Department. Such program shall be implemented prior to the issuance of Phase 2 building permits.

5.7.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with hazards and hazardous materials to less than significant. Therefore, no significant unavoidable adverse impacts relating to hazards have been identified.

5.8 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to hydrology and water quality conditions in the City of Newport Beach from implementation of the proposed Uptown Newport project. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface and groundwater. Surface water is water on the surface of the land and includes lakes, rivers, streams, and creeks. Groundwater is water below the surface of the earth. The analysis in this section is based, in part, upon the following technical report:

- *Uptown Newport Preliminary Hydrology Report*, Hall & Foreman, Inc., December 2011.
- *City of Newport Beach Priority Project Preliminary Water Quality Management Plan: Uptown Newport*, Hall & Foreman, Inc., December 2011.

Complete copies of these studies are included in Appendix I of this DEIR.

5.8.1 Environmental Setting

Regulatory Framework

Clean Water Act

The federal Water Pollution Control Act (also known as the Clean Water Act [CWA]) is the principal statute governing water quality. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the Environmental Protection Agency (EPA) the authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to end all discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters. The CWA sets water quality standards for all contaminants in surface waters and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and storm water discharges, requires states to establish site-specific water quality standards for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded the construction of sewage treatment plants and recognized the need for planning to address non-point sources of pollution. Section 402 of the CWA requires a permit for all point source (a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel) discharges of any pollutant (except dredge or fill material) into waters of the U.S.

National Pollutant Discharge Elimination System

Under the National Pollutant Discharge Elimination System (NPDES) program promulgated under Section 402 of the CWA, all facilities that discharge pollutants from any point source into waters of the U.S. are required to obtain an NPDES permit. The term pollutant broadly includes any type of industrial, municipal, and agricultural waste discharged into water. Point sources are discharges from publicly owned treatment works (POTWs), discharges from industrial facilities, and discharges associated with urban runoff. While the NPDES program addresses certain specific types of agricultural activities, the majority of agricultural facilities are defined as non-point sources and are exempt from NPDES regulation. Pollutant contributors come from direct and indirect sources. Direct sources discharge directly to receiving waters, whereas indirect sources discharge wastewater to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only to direct point source discharges. The National Pretreatment Program

addresses industrial and commercial indirect dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows (CSOs), and the Municipal Storm Water Program. Non-municipal sources include industrial and commercial facilities. Specific NPDES program areas applicable to these industrial/commercial sources are: Process Wastewater Discharges, Non-Process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues two basic permit types: individual and general. Also, the EPA has recently focused on integrating the NPDES program further into watershed planning and permitting (OWM 2004).

The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 50,000 or more, as well construction sites one acre or more in size, must file for and obtain an NPDES permit. Another measure for minimizing and reducing pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, man-made channels, and storm drains designed or used for collecting and conveying stormwater) is the EPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator (such as a City) of a regulated small municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., best management practices [BMPs], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the City's storm drain system from new development and redevelopment projects that result in the land disturbance greater than or equal to one acre. The City of Newport Beach Public Works Department is the local enforcing agency of the MS4 NPDES permit.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act (Water Code sections 13000 et seq.) is the basic water quality control law for California. Under this Act, the State Water Resources Control Board (SWRCB) has ultimate control over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The state is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine Regional Water Quality Control Boards (RWQCBs) carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan or Basin Plan that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The City of Newport Beach is located in the Santa Ana River Basin, Region 8, in the Newport Bay Watershed. The Water Quality Control Plan for the Santa Ana River Basin (8) was revised in 2008. This Basin Plan gives direction on the beneficial uses of the state waters within Region 8, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the standards established in the Basin Plan.

Applicable Plans and Programs

Storm Water Pollution Prevention Plans

Pursuant to the CWA, in 2009, the SWRCB issued a statewide general NPDES Permit for storm water discharges from construction sites (NPDES No. CAS000002). Under this Statewide General Construction Activity permit, discharges of storm water from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or to be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). Each applicant under the General Construction Activity Permit must ensure that a SWPPP is prepared prior to

grading and is implemented during construction. The SWPPP must list BMPs implemented on the construction site to protect storm water runoff, and must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters.

Existing Conditions

Regional Drainage

The project site is located within the Newport Bay Watershed, which spans 152 square miles in central and southern Orange County and is mapped in Figure 5.8-1, *Newport Bay Watershed*.

Site Drainage

Existing site drainage is via a series of underground storm drain lines; the direction of flow onsite is generally from southeast to northwest. Figure 5.8-2, *Existing Drainage Conditions,* shows the existing drainage patterns, onsite drainage subareas, and storm drains. There are four separate storm drain lines that connect with larger storm drain systems in the Koll Center property that bounds the northwest side of the project site. Storm drains in the parking lot in the northern part of the project site discharge into a 66-inch reinforced concrete pipe (RCP) storm drain in the Koll Center site; storm drains in the remainder of the site discharge to a 48-inch RCP storm drain that discharges into detention ponds on the Koll Center site. Drainage released from the detention ponds is conveyed to a 54-inch RCP in MacArthur Boulevard that discharges into San Diego Creek; San Diego Creek flows into Upper Newport Bay. Newport Bay is contiguous with the Pacific Ocean. Streams are divided into segments called "reaches". Receiving waters for the project site include: Reach 1 of San Diego Creek, that is, the segment of the Creek below Jeffrey Road in the City of Irvine; Upper Newport Bay; Lower Newport Bay; and the Pacific Ocean.

Existing drainage volumes and peak flow rates from the site from 25-year and 100-year storms are shown in Table 5.8-1. The project site is divided into two major drainage areas, designated as "A" and "B" on Figure 5.8-2, *Existing Drainage Conditions*. Drainage area A (18.18 acres) includes the central and southern part of the project site. Drainage area B (6.60 acres) consists of the northern part of the site.

Table 5.8-1
Site Drainage Rates and Volumes, Existing Conditions

		Peak Flows, cubic feet per second (cfs)		Volumes, acre-feet (af)[1]	
Drainage Area	Acres	25-Year Storm	100-Year Storm	25-Year Storm	100-Year Storm
A	18.18	54.44	70.09	6.3370	8.1470
B	6.60	20.94	26.95	2.2965	2.9536
Total	**24.78**	**75.38**	**97.04**	**8.6335**	**11.1006**

[1] One acre-foot is approximately 325,851 gallons.

Surface Water Quality

Water quality impairments for Reach 1 of the San Diego Creek, Upper Newport Bay, and Lower Newport Bay, and Total Maximum Daily Loads (TMDLs) for pollutants for which each of those three water bodies are listed, are shown in Table 5.8-2.

Table 5.8-2
Water Quality Impairments and Total Maximum Daily Loads for Receiving Waters

Water Body	Water Quality Impairments Listed on Section 303(d) List of Water Quality Limited Segments	Total Maximum Daily Loads[1]
San Diego Creek Reach 1 (segment of Creek downstream of Jeffrey Road in City of Irvine)	Selenium	Required, expected completion 2007
	Toxaphene (organochlorine insecticide)	Required, expected completion 2019
	Fecal coliform [bacteria]	Required, expected completion 2019
	Nutrients	Approved
	Pesticides	Approved
	Sedimentation/Siltation	Approved
Upper Newport Bay	Chlordane (organochlorine insecticide)	Required, expected completion 2019
	Copper	Required, expected completion 2007
	DDT (organochlorine insecticide)	Required, expected completion 2019
	Indicator Bacteria (pathogens)	Approved
	Metals	Required, expected completion 2019
	Nutrients	Approved
	PCBs (Polychlorinated biphenyls; formerly used as coolants in electrical equipment)	Required, expected completion 2019
	Pesticides	Approved
	Sediment Toxicity	Required, expected completion 2019
	Sedimentation/Siltation	Approved
Lower Newport Bay	Chlordane (organochlorine insecticide)	Required, expected completion 2019
	Copper	Required, expected completion 2007
	DDT (organochlorine insecticide)	Required, expected completion 2019
	Indicator Bacteria (pathogens)	Approved
	Nutrients	Approved
	PCBs (Polychlorinated biphenyls; formerly used as coolants in electrical equipment)	Required, expected completion 2019
	Pesticides	Approved
	Sediment Toxicity	Required, expected completion 2019

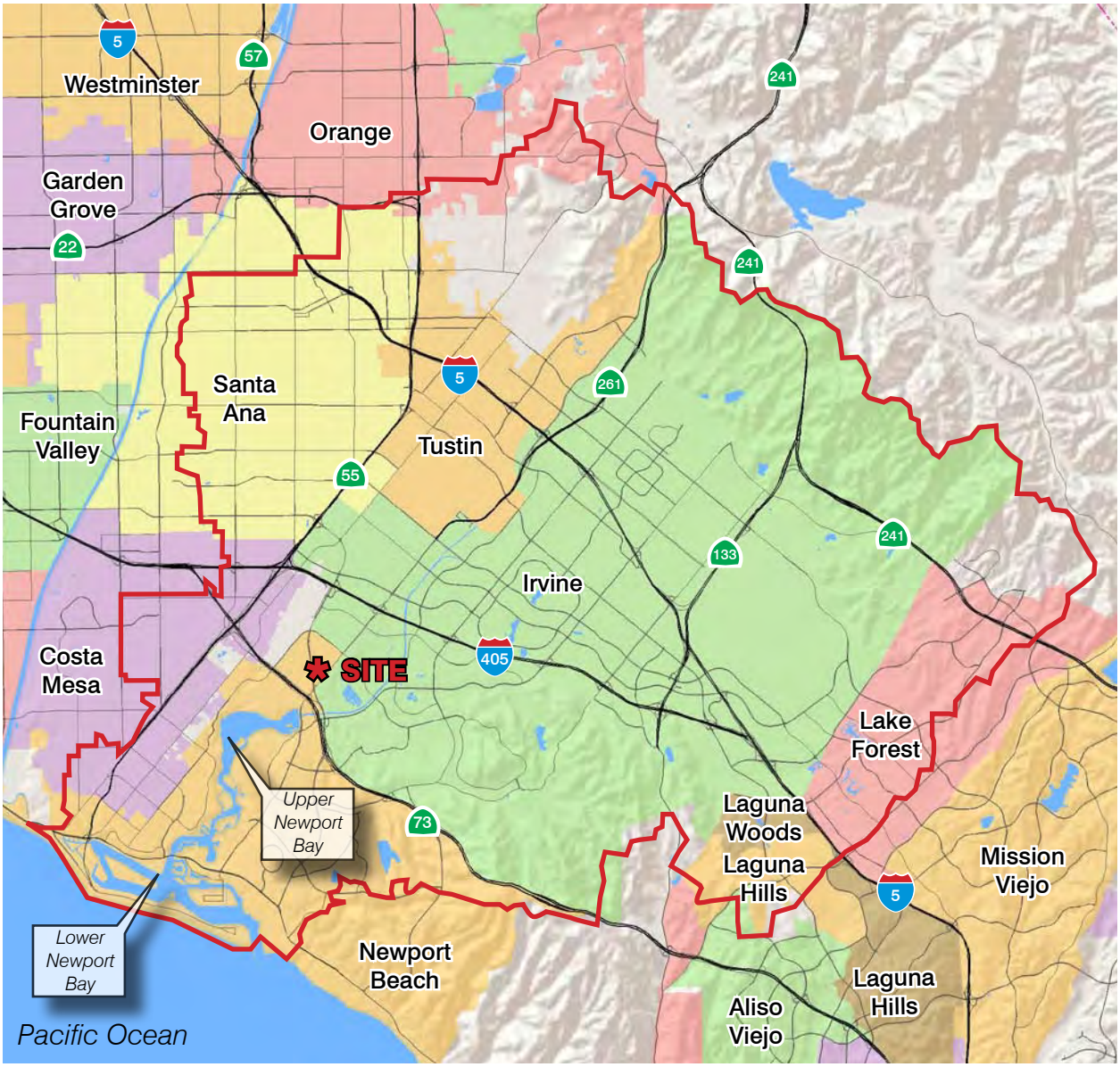
Source: SWRCB 2011
[1] "Approved" means that a TMDL approved by the EPA is in place for that pollutant.

Groundwater

The project site is located above the Main Orange County Groundwater Basin along the boundary of the basin, which extends northwest from the site and underlies most of central and northern Orange County; and the Irvine Groundwater Subbasin to the northeast (see Figure 5.8-3, *OC County Main GW Basin and Irvine Subbasin)*.[1] Groundwater zones in sediments under the site include a Shallow Groundwater Zone extending from 15–30 to 35–45 feet below ground surface (bgs); an Intermediate Groundwater Zone from 65 to 100 feet bgs; and a Lower Groundwater Zone from 140 to 225 feet bgs. Site borings to depths of up to 101 feet conducted as part of the geotechnical engineering investigation for the proposed project penetrated the Shallow Groundwater Zone (Ginter & Associates 2011).

[1] The Irvine Groundwater Subbasin is a subbasin of the Main Basin.

Newport Bay Watershed



Newport Bay Watershed Area

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Scale (Miles)

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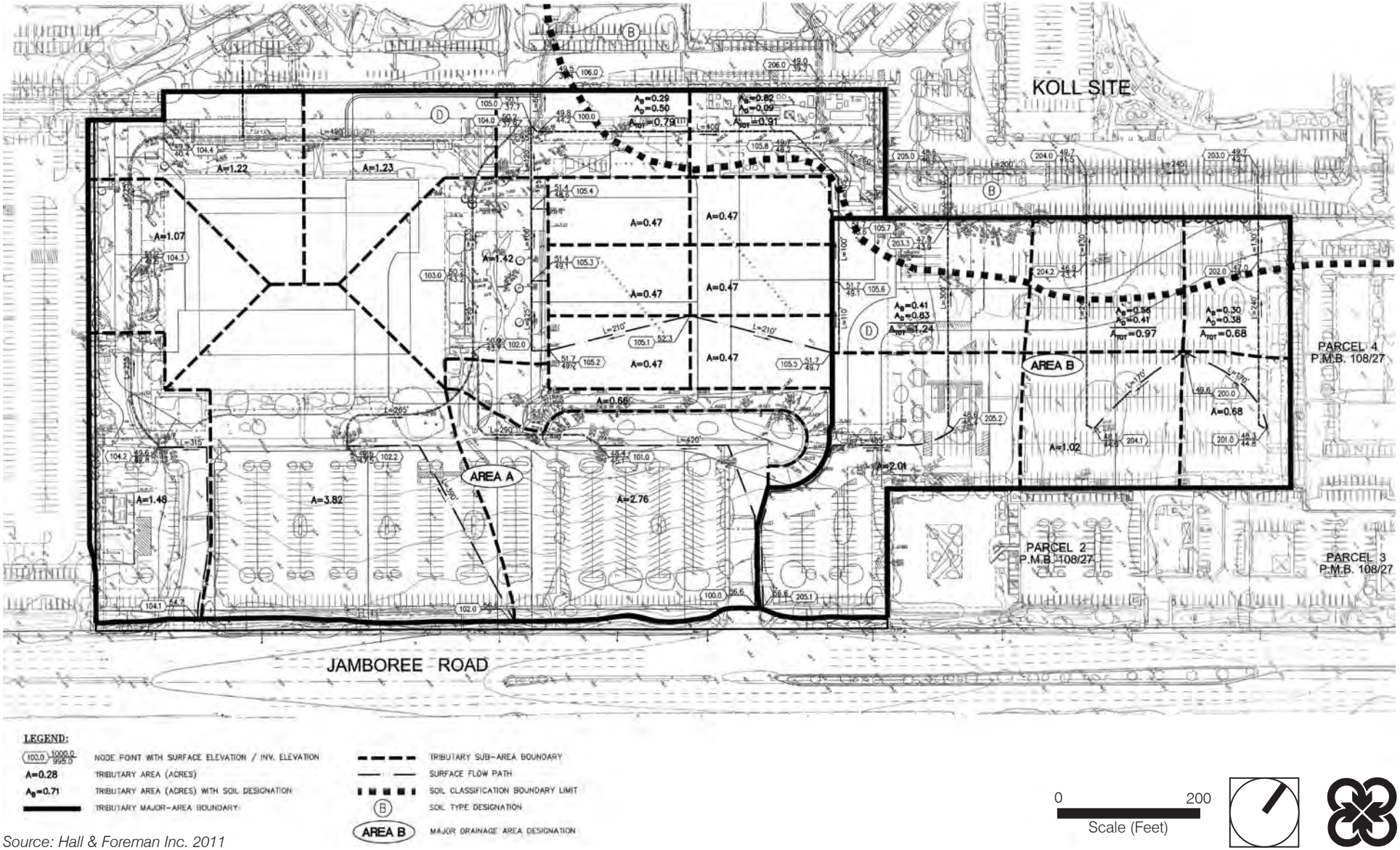
Existing Drainage Conditions



LEGEND:

- NODE POINT WITH SURFACE ELEVATION / INV. ELEVATION
- A=0.28 TRIBUTARY AREA (ACRES)
- A_B=0.71 TRIBUTARY AREA (ACRES) WITH SOIL DESIGNATION
- TRIBUTARY MAJOR-AREA BOUNDARY
- TRIBUTARY SUB-AREA BOUNDARY
- SURFACE FLOW PATH
- SOIL CLASSIFICATION BOUNDARY LIMIT
- SOIL TYPE DESIGNATION
- AREA B MAJOR DRAINAGE AREA DESIGNATION

0 200
Scale (Feet)

Source: Hall & Foreman Inc. 2011

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Orange County Main Groundwater Basin and Irvine Subbasin

0 5
Scale (Miles)

Source: OCWD 2009

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Groundwater Quality

Soil and groundwater contamination with volatile organic compounds (VOCs) released from underground storage tanks containing waste solvents was discovered in 1984. A soil vapor extraction (SVE) system was installed and put into operation in 1984. A high vacuum SVE system was installed and began operation in 2008. An onsite chemical oxidation pilot study for groundwater remediation was initiated in 2010. The groundwater aquifer that sits below the project site is a non-drinking water aquifer. The history of environmental events and investigations onsite is discussed further in Section 5.7, *Hazards and Hazardous Materials*.

5.8.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

HYD-1 Violate any water quality standards or waste discharge requirements.

HYD-2 Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.

HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.

HYD-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

HYD-5 Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff.

HYD-6 Otherwise substantially degrade water quality.

HYD-7 Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

HYD-8 Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

HYD-9 Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

HYD-10 Be subject to inundation by seiche, tsunami, or mudflow.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: HYD-2, HYD-7, HYD-8, HYD-9, and HYD-10. These impacts will not be addressed in the following analysis.

5.8.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.8-1: ***DEVELOPMENT PURSUANT TO THE PROPOSED PROJECT WOULD DECREASE THE AMOUNT OF IMPERVIOUS SURFACES ON THE SITE AND WOULD REDUCE STORMWATER VOLUMES AND PEAK FLOW RATES INTO DRAINAGE SYSTEMS. [THRESHOLDS HYD-4 AND HYD-5]***

Impact Analysis:

Phase 1

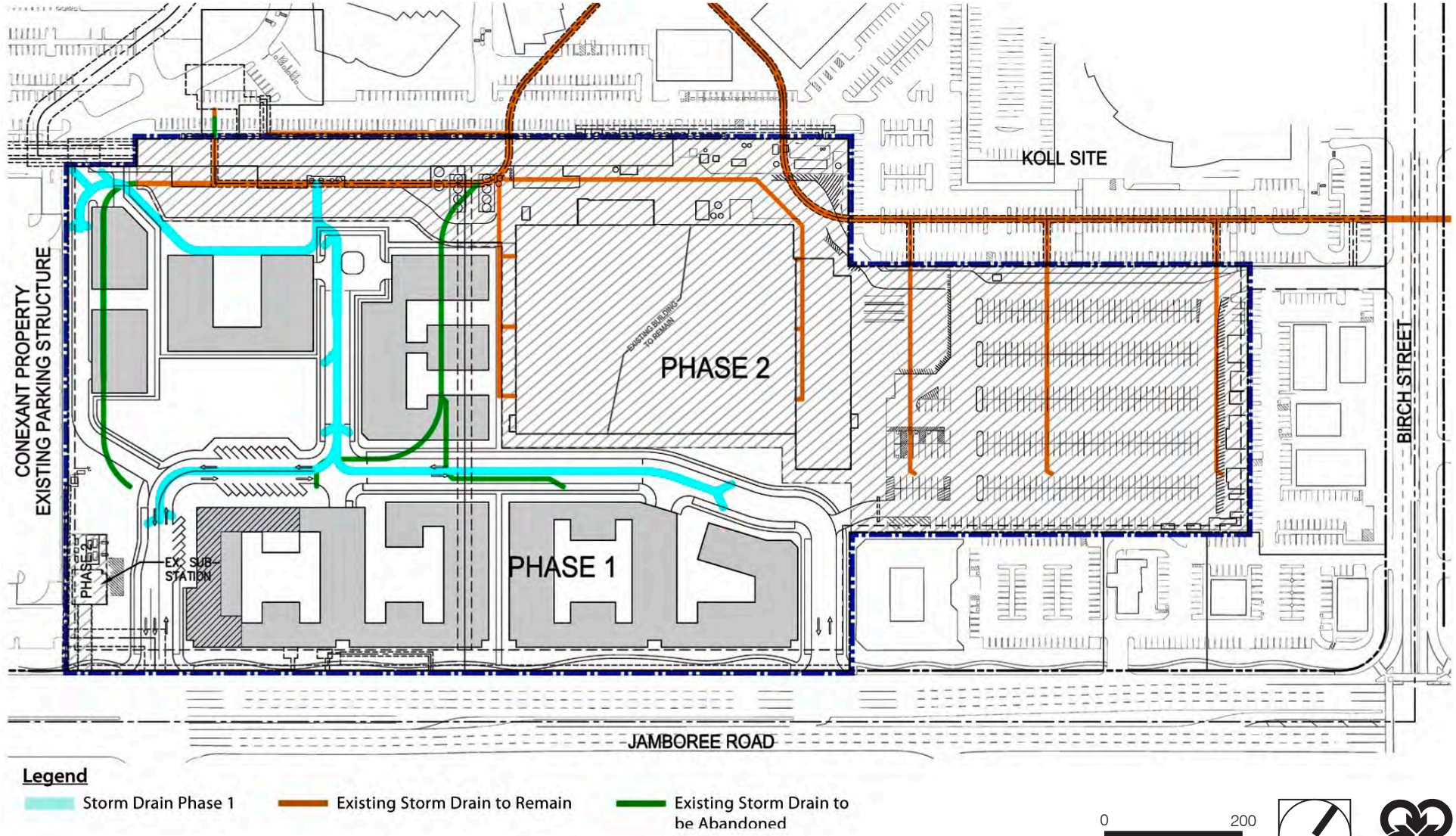
Topography in the developed condition would continue to be relatively flat. Because of the nature of the project and of surrounding land uses, a series of "bird-bath" or sump areas are proposed. This strategy would allow for minimum grades to be achieved while maintaining a relatively uniform elevation for the buildings proposed for the site. This would allow for easy access to and from buildings while providing the necessary grades to drain the site. The sump areas would be drained by catch basins and joined through a network of underground storm drain lines.

Figure 5.8-4, *Phase 1 Storm Drain, Concept* shows the interim storm drainage plan for the project site. Existing storm drainage that capture runoff on the northern portion of the site and collect water for discharge to the western boundary of the project site would remain. New storm drains to serve Phase 1 would connect to the existing drainage along the western boundary. Flows would continue to drain the site from southeast to northwest and onsite storm drains would continue to discharge to the existing 48-inch RCP that currently serves the site. Development of Phase 1 would include installation of a storm drain system serving Phase 1 and the southernmost part of Phase 2. Proposed storm drains in the eastern and central parts of Phase 1 would discharge into an infiltration basin under the proposed park near the south end of the site. An outflow pipe from the infiltration basin would carry stormwater exceeding the design capacity of the basin back to the storm drain system.

As with existing conditions, no offsite flows would enter the project site.

With the introduction of new landscaped area, development of Phase 1 would result in a slight increase in impervious surfaces, and therefore, surface runoff would be minimally increased in comparison to existing conditions. Under the Phase 1 condition, 12.5 percent of the site would be pervious surfaces in comparison to the existing 13 percent.

Phase 1 Storm Drain Concept



Source: Phasing Plan 2011

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Phase 2 Analysis

Figure 5.8-5, Proposed Drainage Plan shows the drainage concept plan for buildout of the proposed project upon completion of Phase 2. Drainage peak flow rates and volumes in post-project conditions are compared to those of existing conditions below in Table 5.8-3. The site acreage analyzed in Table 5.8-3 is that which drains into the onsite storm drain system. Approximately 0.76 acre of the project site next to Jamboree Road that would be developed as entrances and landscaped parkway areas, drainage would sheet-flow to Jamboree Road rather than flow into the onsite storm drain system. Thus, the total acreage evaluated in post-project conditions in Table 5.8-3 is shown as reduced to 24.02 acres from 24.78 acres in existing conditions. In addition to the 0.76 acre that would discharge to Jamboree Road, 1.24 acres along the northern and western edges of the project site would discharge into storm drains on the Koll Center site from inlets on the proposed project site, rather than discharging into the storm drain system that would serve most of the project site. An infiltration basin would be developed under the park proposed in Phase I of the project; drainage from 8.65 acres in the southeastern part of the project site would be conveyed by storm drains to the proposed infiltration basin.

Table 5.8-3
Site Drainage Rates and Volumes

		Peak Flows, cubic feet per second (cfs)		*Volumes, acre-feet (af)*[1]	
Drainage Area	*Acres*	*25-Year Storm*	*100-Year Storm*	*25-Year Storm*	*100-Year Storm*
Post-Project Conditions					
A	17.74	45.49	58.42	5.9295	7.8281
B	6.28	15.13	19.54	1.9542	2.6866
Total	**24.02**	**60.62**	**77.96**	**7.8837**	**10.5147**
Existing Conditions					
A	18.18	54.44	70.09	6.3370	8.1470
B	6.60	20.94	26.95	2.2965	2.9536
Total	**24.78**	**75.38**	**97.04**	**8.6335**	**11.1006**
Post-Project Conditions Less Existing Conditions					
A	-0.44	-8.95	-11.67	-0.4075	-0.3189
B	-0.32	-5.81	-7.41	-0.3423	-0.267
Total	**-0.76**	**-14.76**	**-19.08**	**-0.7498**	**-0.5859**
Percent Change, (Post-Project Conditions - Existing Conditions)/Existing Conditions					
A	-2.4%	-16.4%	-16.7%	-6.4%	-3.9%
B	-4.8%	-27.7%	-27.5%	-14.9%	-9.0%
Total	**-3.1%**	**-19.6%**	**-19.7%**	**-8.7%**	**-5.3%**

[1] One acre-foot is approximately 325,851 gallons.

As shown in Table 5.8-3, peak drainage flows from the whole site would be reduced by just less than 20 percent in both 25-year and 100-year storms compared to existing conditions. Drainage volumes from the whole site would be reduced by 8.7 percent in a 25-year storm, and 5.3 percent in a 100-year storm, compared to existing conditions.

Upon completion of Phase 2, pervious areas onsite would be 22 percent of the project site in comparison to the existing 13 percent. Pervious areas in the site of Phase 2 at project completion would include a second park as well as landscaped areas. Construction of Phase 2 would include installation of storm drains serving Phase 2 and connections of those proposed storm drains to two existing storm drains in the Koll Center property.

IMPACT 5.8-2: INCREASES IN SHORT-TERM UNQUANTIFIABLE POLLUTANT CONCENTRATIONS COULD RESULT FROM ONSITE CONSTRUCTION ACTIVITIES. [THRESHOLDS HYD-1 (PART) AND HYD-6. (PART)]

Impact Analysis:

Phase 1

Project construction would involve use of grading and construction equipment that could result in pollution of stormwater with oil and greases, fuels, and metals. Disturbance of soil during grading and construction could leave soil vulnerable to erosion. Project construction could also generate water pollution from paving and grinding operations, concrete work, and use of paints and other coatings onsite. Installation of landscaping could result in water pollution with fertilizers and pesticides.

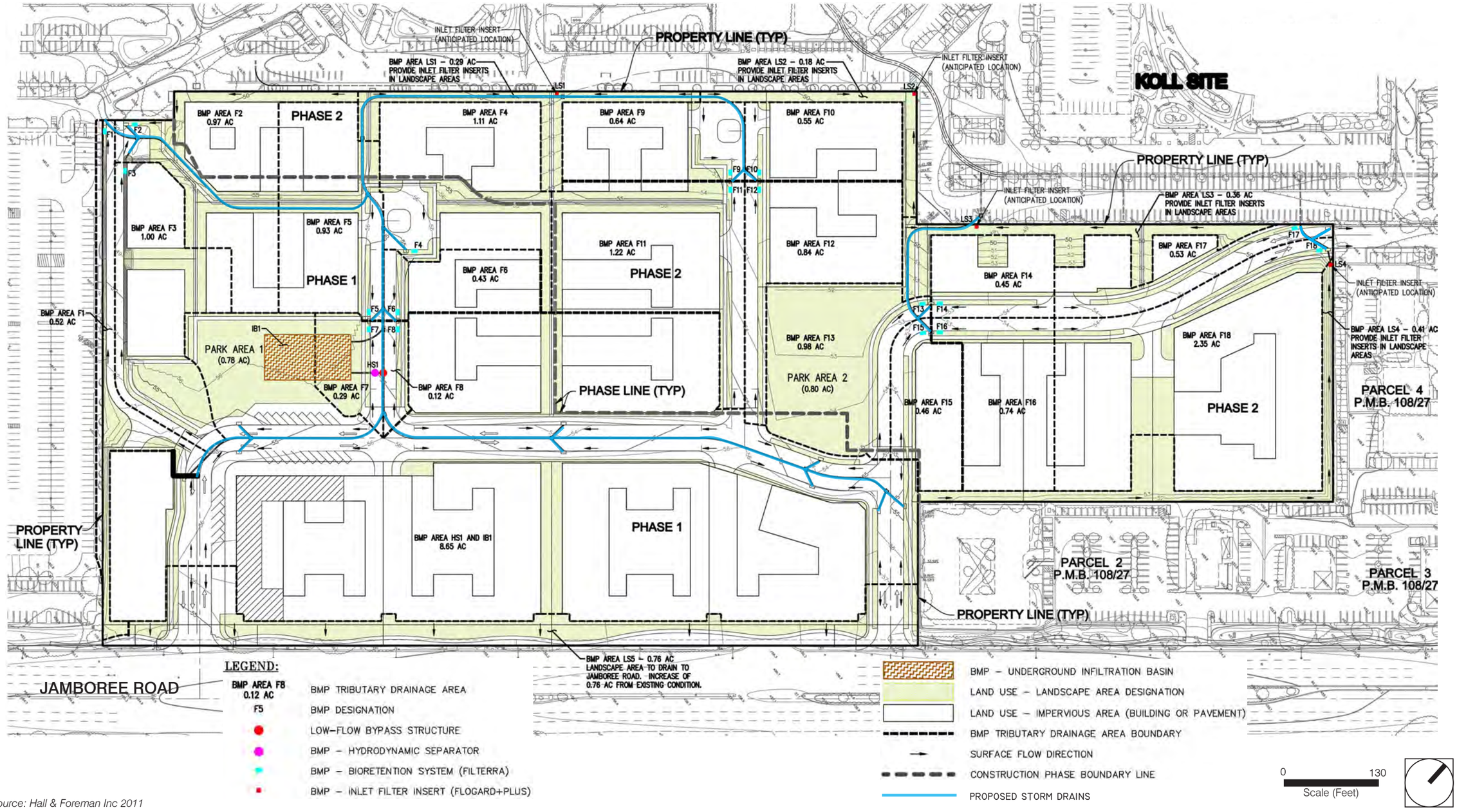
The project applicant would prepare and implement a SWPPP specifying BMPs to be implemented during project construction to avoid or minimize water pollution. Categories of BMPs that are included in SWPPPs include:

- Erosion controls: cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind. Erosion control BMPs include mulch, soil binders, and mats.
- Sediment controls: Filter out soil particles that have been detached and transported in water. Sediment control BMPs include barriers, and cleaning measures such as street sweeping.
- Wind Erosion Control: the aims and methods of wind erosion control are similar to those of erosion control described above.
- Tracking controls: Tracking control BMPs minimize the tracking of soil offsite by vehicles; for instance, stabilizing construction roadways and entrances/exits.
- Non-stormwater management: Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. Non-stormwater management BMPs also prescribe conducting various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges.
- Waste and Materials Management: management of materials and wastes to avoid contamination of stormwater. Waste and materials management BMPs include spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

Phase 2

Phase 2 of the project would also required preparation and implementation of a SWPPP as detailed under Phase 1.

Proposed Drainage Plan



Source: Hall & Foreman Inc 2011

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IMPACT 5.8-3: ***AFTER PROJECT DEVELOPMENT, THE QUALITY OF STORM RUNOFF (SEDIMENT, NUTRIENTS, METALS, PESTICIDES, PATHOGENS, AND HYDROCARBONS) MAY BE ALTERED. [THRESHOLD HYD-1 (PART) AND HYD-6 (PART)]***

Impact Analysis:

Phase 1

Pollutants of Concern

Pollutants of Concern are those that are expected to be generated by the project and that could impact stormwater. Expected pollutants of concern would be the same for each of the two phases of the project, and are described in Table 5.8-4.

Table 5.8-4
Pollutants of Concern

Pollutant	*Description*	*Sources in Proposed Project*
Suspended Solids/Sediment	Sediments are solid materials that are eroded from the land surface. Sediments can increase the turbidity (cloudiness) of water, clog fish gills, reduce spawning habitat, lower survival rates of young aquatic organisms, smother bottom-dwelling organisms, and suppress aquatic vegetation growth.	Attached Residential, Retail, Parking, and Street project components
Nutrients	Nutrients are inorganic substances such as nitrogen and phosphorous; the primary sources of these substances in urban runoff are fertilizers and eroded soils. Excessive discharge of nutrients to water bodies and streams causes eutrophication, where overgrowth of aquatic plants and algae can lead to excessive decay of organic matter in the water, loss of oxygen in the water, and eventual death of aquatic organisms.	Attached Residential, Retail, Parking, and Street project components
Heavy Metals	Metals of concern as water contaminants include cadmium, chromium, copper, lead, mercury, and zinc. Lead and chromium have been used as corrosion inhibitors; metals are also raw materials used in nonmetal products such as fuels, adhesives, and paints. At low concentrations naturally occurring in soil, metals may not be toxic. However, certain metals at higher concentrations can be harmful to aquatic life and to humans. Humans can be impacted from groundwater contaminated with metals. Metals can become concentrated in fish and shellfish, and can subsequently harm humans who consume those animals. Environmental concerns have already led to restrictions on some uses of metals.	Retail, Parking and Street project components
Pathogens (Bacteria/Virus)	Bacteria and viruses are microorganisms that thrive under certain environmental conditions. Water contamination by animal or human fecal wastes and contamination by excess organic wastes are common causes of proliferation of these microorganisms. Water containing excessive bacteria and viruses can alter the aquatic habitat and harm humans and aquatic life.	Attached Residential, Retail, Parking, and Street project components
Pesticides	Relatively low concentrations of the active ingredients in pesticides can be toxic in water. Excessive or improper use of pesticides can cause toxic contamination in runoff.	Attached Residential, Retail, Parking, and Street project components
Oil and Grease	Oil and grease in water bodies decrease their aesthetic value as well as water quality; one of the most important sources of oil and grease is leakage from motor vehicles.	Attached Residential, Retail, Parking, and Street project components
Toxic Organic Compounds	Organic compounds are carbon based. Commercially available or naturally occurring organic compounds are found in pesticides, solvents, and hydrocarbons. Organic compounds at certain concentrations can be hazardous to life or health. Toxic levels of solvents and cleaning compounds can be discharged to storm drains during cleaning and rinsing operations.	Retail, Parking and Street project components

Table 5.8-4
Pollutants of Concern

Pollutant	Description	Sources in Proposed Project
Trash and Debris	Trash and debris, such as paper, plastic, polystyrene foam, aluminum, and biodegradable organic matter such as leaves, grass cuttings, and food waste, may significantly impair aquatic habitat and the recreational value of a water body. In addition, trash impacts water quality by increasing biochemical oxygen demand.	Attached Residential, Retail, Parking, and Street project components

A preliminary Water Quality Management Plan (WQMP), completed in December 2011, specifies BMPs that would be included as a part of the project to avoid or minimize stormwater pollution during project operation, including BMPs that would be included in project design, and BMPs that would be carried out during project operation.

Site design for stormwater quality protection uses a three-level strategy:

1. Reduce or eliminate post-project runoff;

2. Control sources of pollutants; and, if still needed after (1) and (2),

3. Treat contaminated stormwater before discharging it into the storm drain system or into receiving waters.

The project is a Priority Project as defined under the MS4 Permit; and, thus, is required to implement Low-Impact Development (LID) BMPs in addition to the three categories of BMPs mentioned above.

There are three categories of BMPs, with each category corresponding to one of the three strategies.

- Low-Impact Development BMPs. The design goal for LID BMPs is to maintain or replicate pre-development hydrologic conditions through site preservation techniques and the use of integrated and distributed micro-scale storm water infiltration, retention, detention, evapotranspiration,[2] and filtration and treatment systems as close as feasible to the source(s) of runoff.

- Source Control BMPs control sources of pollutants. Source control BMPs are divided into two types:
    - Structural Source Control BMPs, which are included in project design, aim to reduce the potential for pollutants to enter runoff. Common means include roof runoff controls; protection of slopes and channels; efficient irrigation; and storm drain system signage.
    - Nonstructural Source Control BMPs, which are used during project operation, aim to reduce the potential for pollutants resulting from activities onsite to enter runoff. Common means include education of owners and employees; activity restrictions, such as requiring that trash can lids be closed at all times; and periodic inspections of water quality features such as catch basins and filters.

- Treatment Control BMPs treat contaminated stormwater before the water is discharged offsite. Common means include biofiltration through constructed project landscape elements such as bioswales, infiltration trenches, and/or infiltration basins; and filters. (CASQA 2004).

[2] Evapotranspiration is the reduction in runoff via evaporation and via transpiration through plants.

Low-Impact Development BMPs

LID BMPs are described briefly below; selection of LID BMPs are described in detail in Section IV of the WQMP included as Appendix I of this DEIR.

Infiltration

An infiltration basin would be developed under the proposed park in the southern part of Phase I of the proposed project. Approximately 8.65 acres in the southeastern part of the project site – about one-third of the entire site[3] – would drain to the infiltration basin via proposed storm drains under driveways. The capacity of the infiltration basin would be 18,015 cubic feet. Water quality treatment volume is that which would result from an 85th-percentile, 24-hour storm; that is, about 0.7 to 0.75 inches of rain in 24 hours. Drainage from the storm drain would pass through a hydrodynamic separator before continuing through the inlet pipe to the infiltration basin; hydrodynamic separators remove trash, debris, other solids, and oil from stormwater.

Biotreatment BMPs

The project would use Filterra proprietary biotreatment devices or approved equivalents. Filterra devices are two-leveled chambers installed behind storm drain catch basins. The upper chamber contains filter media topped with a layer of mulch and vegetation growing in the mulch; the lower chamber is a detention tank with an outlet pipe connecting to a storm drain. Filterra or equivalent devices would be used for storm drain catch basins in drainage areas in most of the northern and western parts of the site comprising 14.13 acres at project completion; and consisting of the western part of Phase 1 and almost all of Phase 2.

Source Control BMPs

Structural Source Control BMPs

The following structural source control BMPs are included in the project WQMP:

- Provide storm drain system stenciling and signage
- Design and construct trash and waste storage areas to reduce pollution introduction. Trash and waste storage areas should be paved and protected from stormwater run-on through berming or grading; trash containers should be covered by lids or by a roof or awning; and the areas should be screened or walled to prevent off-site transport of trash (e.g., by wind).
- Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control.
- Protect slopes and channels and provide energy dissipation.
- Incorporate LID BMPs (described above).
- Wash water control for food preparation areas.

Nonstructural Source Control BMPs

- Education for property owners, tenants and occupants; and employee training

[3] The part of the site that would drain to the infiltration basin is the eastern and central parts of the site of Phase 1 and a small part of the site of Phase 2.

- Activity Restrictions
- Common area landscape management
- BMP maintenance and Common area catch basin inspections.
- Title 22 CCR compliance (How development will comply). California Code of Regulations Title 22 contains regulations governing community care facilities including day care facilities.
- Hazardous materials disclosure compliance
- Uniform Fire Code implementation
- Common area litter control; and street sweeping of private streets and parking lots

Treatment Control BMPs

- Hydrodynamic Separator: see description under *LID BMPs,* above.
- Catch Basin Inserts: inlets in 1.24 acres of area along the northern and western edges of the project site that would be isolated from the drainage system for most of the site. Catch basins in these areas would be equipped with Kristar Flogard+ Plus filter inserts or approved equivalent devices.
- Propietary Roof Drain Stormwater Treatment Device (if applicable). To be used only if final design reveals that roof drains, building drains, or other landscape drains do not have the grade differential required to outlet through curb openings in the adjacent roadway(s). Under this scenario, manufactured roof drain stormwater systems (Filterra or approved equal) shall be provided prior to connecting to the main storm drain system.

Phase 2

The analysis above for Phase 1 also pertains to Phase 2 of the proposed project. Implementation of Phase 2 would also remove the existing TowerJazz industrial facility and eliminate potential pollutants associated with this operation.

5.8.4 Cumulative Impacts

The area over which cumulative impacts are considered is the Newport Bay Watershed. The Newport Bay Watershed spans most of the cities of Irvine, Tustin, Santa Ana, Lake Forest, and Newport Beach; portions of several other cities; and portions of unincorporated Orange County. Substantial growth is anticipated within the Newport Bay Watershed in the next few decades; as parts of the watershed are already urbanized, growth is expected to be a mix of development and redevelopment. New development and redevelopment projects would result in some increases in impervious areas, and thus some increases in amounts of stormwater; and would add increased sources of urban stormwater pollutants such as oil and grease, trash and debris, and pesticides and fertilizers.

Other projects in the Newport Bay Watershed would be required to comply with the Statewide General Construction Permit through preparation and implementation of SWPPPs; and with the MS4 Permit through preparation and implementation of WQMPs. For priority projects, requirements of the MS4 permit include

implementation of LID BMPs. Other projects would also be required to limit runoff pursuant to regulations of the Orange County Flood Control District.

5.8.5 Existing Regulations and Standard Conditions of Approval

Regulations

- National Pollution Discharge Elimination System (NPDES) Regulations
- Statewide General Construction Activity Permit: State Water Resources Control Board
- MS4 Permit: Santa Ana Regional Water Quality Control Board

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to hydrology and water quality that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.8.6 Level of Significance Before Mitigation

Phase 1

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.8-1, 5.8-2, and 5.8-3.

Phase 2

The significance conclusions above also apply to Phase 2.

5.8.7 Mitigation Measures

Phase 1 and 2

No mitigation measures are required.

5.8.8 Level of Significance After Mitigation

Impacts would be less than significant.

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5.9 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to land use in the City of Newport Beach from implementation of the Uptown Newport project. This section focuses on direct land use impacts. Direct impacts are those that result in land use incompatibilities, division of neighborhoods or communities, or interference with other land use plans, including habitat or wildlife conservation plans. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other topical sections of this DEIR.

5.9.1 Environmental Setting

Existing Onsite Land Uses

Existing project site uses and conditions are depicted in Figures 3-3, *Aerial Photograph*, and 4-1, *Site Photographs*. The project site is currently developed with two industrial buildings. The Half Dome building in the southwestern part of the project site is one story and 126,675 square feet. It is used for office, light industrial, storage, and café services. The TowerJazz facility is two and three stories and 311,452 square feet. A Southern California Edison (SCE) substation exists along the southwestern boundary of the site. The balance of the project site is developed with landscaped areas, surface parking lots for employees, and other hardscape improvements; the parking lots are in the eastern and northern part of the site.

Existing Surrounding Land Uses

Surrounding land uses are depicted in Figures 3-3, *Aerial Photograph*, and 4-2, *Surrounding Uses – Photographs*. The project site is surrounded to the north, west, and south by commercial/office uses within the Koll Center Newport office park. To the north are clusters of office buildings ranging from 1 to 15 stories in height and 3 fast-food restaurants. To the west are office buildings ranging from 1 to 4 stories high, landscaped areas, and 2 man-made lakes that are part of Koll Center Newport. To the south are two 20-story office buildings, surface and structured parking, and a fast-food restaurant. Jamboree Road forms the eastern boundary of the project site, and beyond Jamboree Road to the east is undeveloped open space within the North Campus planning area of the University of California, Irvine. The San Joaquin Freshwater Marsh Reserve is approximately 875 feet southeast of project site, across Jamboree Road.

Existing General Plan Land Use and Zoning Designations

The project site has a General Plan land use designation of Mixed-Use Horizontal-2 (MU-H2), which provides for horizontal intermixing of uses that may include regional commercial office, multifamily residential, vertical mixed-use buildings, industrial, hotel rooms, and ancillary neighborhood commercial uses. The MU-H2 designation applies to a majority of the properties located in the Airport Area, which includes the project site.

The zoning designation of the project site is Industrial Site 1 of the Koll Center Newport Planned Community (PC-15), which permits light industrial and office- and commercial-related support uses.

Applicable Plans and Regulations

Regional and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

Regional

Southern California Association of Governments

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized Metropolitan Planning Organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with the Southern California Air Quality Management District (SCAQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives. The plans most applicable to the proposed project are discussed below.

The proposed project is considered a project of regionwide significance pursuant to the criteria outlined in SCAG's Intergovernmental Review Procedures Handbook–November 1995 and Section 15206 of the California Environmental Quality Act (CEQA) Guidelines, as it encompasses more than 500 residential units. Therefore, this section addresses the project's consistency with the applicable regional planning guidelines and policies.

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, SCAG adopted the 2012-235 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future. SCAG has placed a greater emphasis than ever before on sustainability and integrated planning in the 2012–2035 RTP/SCS. The RTP/SCS vision encompasses three principles that collectively work as the key to the region's future: mobility, economy, and sustainability. The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the federal Clean Air Act. The 2012–2035 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play, and how they will move around. The proposed project's consistency with the applicable RTP/SCS goals is analyzed in detail in Table 5.9-2.

Compass Growth Vision

In 2004, SCAG adopted the Compass Growth Vision (CGV), which is a response, supported by a regional consensus, to the land use and transportation challenges facing southern California. SCAG developed the CGV in an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its environmental setting as a whole. In conjunction with the CGV, SCAG also adopted the Compass Blueprint 2% Strategy, which is the part of the 2004 regional growth forecast policy that attempts to reduce emissions and increase mobility through strategic land use changes. The 2% Strategy is a guideline for how and where the CGV for southern California's future can be implemented toward improving measures of mobility, livability, prosperity, and sustainability for local neighborhoods and their residents. Through extensive public participation and land use and transportation modeling and analysis, the program has resulted in a plan that identifies strategic growth opportunity areas (2% Strategy Opportunity Areas). These opportunity areas are roughly 2 percent of the land area in the southern California region. The project site is not within any designated Compass 2% Strategy Opportunity Areas (SCAG 2012c). Therefore, the project's consistency with growth visioning principles of the Compass Strategy is not required to be addressed in this DEIR.

Airport Environs Land Use Plan for John Wayne Airport

In 1975, the Airport Land Use Commission (ALUC) of Orange County adopted an Airport Environs Land Use Plan (AELUP, amended April 17, 2008) that included John Way Airport (JWA), Fullerton Municipal Airport, and the Joint Forces Training Base Los Alamitos. The AELUP is a land use compatibility pan that is intended to protect the public from adverse effects of aircraft noise, to ensure the people and facilities are not concentrated in areas susceptible to aircraft accidents, and to ensure that no structures or activities adversely affect navigable space. The AELUP identifies standards for development in the airport's planning area based on noise contours, accident potential zones, and building heights. ALUC is an agency authorized under state law to assist local agencies in ensuring compatible land uses in the vicinity of airports. Primary areas of concern for ALUCs are noise, safety hazards, and airport operational integrity. ALUCs are not implementing agencies in the manner of local governments, nor do they issue permits for a project such as those required by local governments. However, pursuant to California Public Utilities Code Section 21676, local governments are required to submit all general plan amendments and zone changes that occur in the ALUC planning areas for consistency review by ALUC. If such an amendment or change is deemed inconsistent with the ALUC plan, a local government may override the ALUC decision by a two-thirds vote of its governing body, if it makes specific findings that the proposed action is consistent with the purposes stated in Section 21670(a)(2) of the Public Utilities Code: "to protect public health, safety, and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards in areas around public airports to the extent that these areas are not already devoted to incompatible uses."

The project site is approximately 0.6 mile southeast of JWA and is in the AELUP for JWA. As shown in Figure S5 of the City's General Plan Safety Element, JWA Clear Zone/Runway Protection Zones and Accident Potential Zones, the project site is within Safety Zone 6: Traffic Pattern Zone of JWA. Additionally, a small portion of the project site along the eastern boundary falls within the 60 dBA CNEL aircraft operation noise contours for JWA, as shown in Figure 5.10-4, *John Wayne Airport Future Noise Level Contours*. Furthermore, the overall project site is in the Federal Aviation Regulation (FAR) Part 77 Obstruction Imaginary Surfaces Zone and the FAR Part 77 Notification Area of JWA, as identified in the AELUP for JWA (ALUC 2008). Therefore, the proposed project requires review by ALUC for consistency with the AELUP prior to Newport Beach City Council action on the project.

Local

University of California, Irvine 2007 Long Range Development Plan

The UCI 2007 Long Range Development Plan (2007 LRDP) is a comprehensive policy and land use plan that guides the growth of the campus. It identifies the physical development needed to achieve the academic needs and goals of the campus while demonstrating responsible conservation of limited resources. UCI's 2007 LRDP was last updated in 2007. It is the fourth LRDP for UCI; previous plans were adopted in 1963, 1970, and 1989. The 2007 LRDP provides a framework of policies and guidelines to shape land use and physical development at UCI through a horizon year of 2025–26. The plan supports key academic and student life goals, identifies development objectives, delineates campus land uses, and estimates the new building space needed to support projected program expansion through the planning horizon year (UCI 2007).

The 2007 LRDP is a framework of policies and guidelines to influence future decisions on land use, enrollment, housing, parking, academic facilities, and urban and landscape design. Individual capital projects would be subject to future approval by UCI. The 2007 LRDP is also accompanied by an EIR, prepared in accordance with CEQA and University of California guidelines for implementation of CEQA. The 2007 LRDP encompasses the main campus and its environs. It does not include remote campus sites such as the UCI Medical Center in Orange or the Shellmaker Island boathouse in Newport Beach.

As noted earlier, Jamboree Road forms the eastern boundary of the project site, and beyond Jamboree Road is undeveloped open space within the North Campus planning area of UCI, which is covered under the 2007 LRDP and is currently occupied by a few academic and support facilities, an arboretum, and a child development center. As shown in Figure 5.1-1, *UCI Land Use Plan for 2007 Long Range Development Pla*n, the North Campus area is designated Mixed Use-Commercial. The Mixed Use-Commercial area contains a combination of uses to fashion a vibrant live-work environment supportive of UCI goals. Permitted uses in this land use designation include facilities for office, research and development, and academic activities; commercial and retail space; conference facilities; university- and non-university-related residential facilities; support uses such as child care and recreation facilities; parking; and other related uses. The approved development program for North Campus under the 2007 LRDP includes 950,000 square feet of office and/or research and development space and 435 multi-family dwelling units. The proposed project is not subject to the LRDP.

City of Newport Beach General Plan

Future development of all land in the City of Newport Beach is guided by the City's General Plan. The City's General Plan Update was approved by the City Council on July 25, 2006, and its increasing housing, nonresidential building intensity, and traffic were approved by voters in accordance with City Charter Section 423 on November 7, 2006. City Charter Section 423 requires voter approval for amendments that exceed specific development thresholds.

The General Plan consists of a series of state-mandated and optional elements to direct the City's physical, social, and economic growth. Elements within the City of Newport Beach General Plan include Land Use, Harbor and Bay, Housing, Historical Resources, Circulation, Recreation, Arts and Cultural, Natural Resources, Safety, and Noise. Following is a discussion of the various elements.

The policies contained in each of the elements that are relevant to the proposed project are listed in Table 5.9-1. The proposed projects consistency with the applicable policies of these elements is also analyzed in this table.

Land Use Element. The land use element provides guidance regarding the ultimate pattern of development and it provides development allocations for land uses throughout the City. It is based on and correlates the policies from all elements into a set of coherent development policies, which serve as the central organizing element for the City's General Plan as a whole. Cumulatively, the Land Use Element's policies directly affect the establishment and maintenance of the neighborhoods, districts, corridors, and open spaces that distinguish and contribute to Newport Beach's livability, vitality, and image. Policies related to urban form are also contained in the Land Use Element.

Harbor and Bay Element. The goals and policies pertaining to harbor issues are intended to guide the content of regulations related to development and activities conducted on the water. Additional goals and policies recognize the important component of land use decisions related to waterfront property around Newport Harbor. The aim of the Harbor and Bay Element goals and policies is to preserve the diversity and charm of existing uses without unduly restricting the rights of the waterfront property owner. Goals and policies within the Harbor and Bay Element have been organized to address both water- and land-related issues, provision of public access, water quality and environmental issues, visual characteristics, and the administration of the harbor and bay.

Section 5.8, *Hydrology and Water Quality*, contains further information about the water quality and beneficiary biological and recreational uses of the City's surface water bodies.

Housing Element. Development of housing in the City of Newport Beach is guided by the goals, objectives, and policies of the Housing Element. The 2008-2014 Housing Element is an update and revision of the 2006 element, and consists of new technical data, revised goals, updated policies, and a series of programs and implementing measures. The Housing Element is designed to facilitate attainment of the City's Regional Housing Needs Allocation, and to foster the availability of housing affordable to all income levels to the extent possible, given Newport Beach's constraints. The Housing Element includes policies aimed at ensuring that adequate housing is provided in the City of Newport Beach. In November 2011, the California Department of Housing and Community Development found the 2008-2014 Housing Element consistent with State Housing Element law. Section 5.11, *Population and Housing*, contains further information about population and housing.

Historical Resources Element. This Element addresses the protection and sustainability of Newport Beach's historical and paleontological resources. Goals and policies presented within this element are intended to recognize, maintain, and protect the community's unique historical, cultural, and archeological sites and structures. Preserving and maintaining these resources helps to create an awareness and appreciation of the City's rich history. Section 5.4, *Cultural Resources*, contains further information about historic and cultural resources.

Circulation Element. The Circulation Element of the General Plan governs the long-term mobility system of the City of Newport Beach. The goals and policies in this element are closely correlated with the Land Use Element and are intended to provide the best possible balance between the City's future growth and land use development, roadway size, traffic service levels, and community character. The Circulation Element of the General Plan also contains policies related to water transportation services and waterfront walkways. Section 5.14, *Transportation and Traffic*, contains further information about the existing circulation system and transportation facilities.

Recreation Element. The primary purpose of the Recreation Element is to ensure that the provision of parks and recreation facilities are appropriate for the residential and business population of Newport Beach. Specific recreational issues and policies in the Recreation Element include: parks and recreation facilities, recreation programs, shared facilities, coastal recreation and support facilities, marine recreation, and public access. The Recreation Element also contains policies that encourage the provision and maintenance of marine- recreation-related facilities that enhance the enjoyment of the City's natural resources and the provision and maintenance of public access for recreational purposes to the City's coastal resources. Section 5.13, *Recreation*, contains further information about parks and recreation facilities.

Arts and Cultural Element. The goals and policies of the Arts and Cultural Element are intended to be a guide for meeting the future cultural needs of the community. Future challenges in Newport Beach require maximizing the community's cultural arts potential by coordinating with various community groups, businesses, agencies, citizens, and the City to create active and cohesive cultural and arts programs. The goals and policies in this element are intended to serve as a mechanism for integrating these resources to provide improved and expanded arts and cultural facilities and programs to the community.

None of the policies outlined in the Arts and Cultural Element are applicable to the proposed project and are therefore not listed or analyzed in Table 5.9-1, *General Plan Consistency Analysis*.

Natural Resources Element. The primary objective of the Natural Resources Element is to provide direction regarding the conservation, development, and utilization of natural resources. It identifies Newport Beach's natural resources and policies for their preservation, development, and wise use. This element addresses: water supply (as a resource) and water quality (includes bay and ocean quality, and potable drinking water),

air quality, terrestrial and marine biological resources, open space, archaeological and paleontological resources, mineral resources, visual resources, and energy.

The various resource management issues listed in this element are analyzed in detail in their respective sections of this DEIR: Section 5.1, *Aesthetics*; Section 5.2, *Air Quality*; Section 5.3, *Biological Resources*; Section 5.4, *Cultural Resources*; Section 5.6, *Greenhouse Gas Emissions*; Section 5.8, *Hydrology and Water Quality*; Section 5.12, *Recreation*; and Section 5.14, *Utilities and Service Systems*.

Safety Element. The primary goal of the Safety Element is to reduce the potential risk of death, injuries, property damage, and economic and social dislocation resulting from natural and human-induced hazards. The Safety Element recognizes and responds to public health and safety risks. The element specifically addresses coastal hazards, geologic hazards, seismic hazards, flood hazards, wildland and urban fire hazards, hazardous materials, aviation hazards, and disaster planning. The element also includes policies and programs that minimize potential impacts from hazards.

Sections 5.5, *Geology and Soils*, 5.7, *Hazards and Hazardous Materials*, and 5.8, *Hydrology and Water Quality*, contain further information about the various hazards noted above.

Noise Element. The Noise Element of the General Plan is a tool for including noise control in the planning process to maintain compatible land use with environmental noise levels. This Noise Element identifies noise-sensitive land uses and noise sources, and defines areas of noise impact for the purpose of developing policies to ensure that Newport Beach residents will be protected from excessive noise intrusion. The major noise sources in the project area include traffic from Jamboree Road and MacArthur Boulevard, and takeoffs and landings at John Wayne Airport. The operation of equipment at the TowerJazz semiconductor facility also contributes to the ambient noise environment, especially at the western portions of the project site. The Noise Element includes goals and policies aimed at ensuring that adequate measures for regulating noise-generating activities and land uses are provided in the City of Newport Beach.

Section 5.10, *Noise*, contains further information about the existing and future noise environment in the project area.

Airport Business Area Integrated Conceptual Development Plan

The Airport Business Area Integrated Conceptual Development Plan (ICDP), which was adopted by the Newport Beach City Council in September 28 of 2010, is intended to implement Newport Beach General Plan land use policy LU 6.15.11 (Conceptual Development Plan Area). This policy requires a single conceptual development plan for any residential development in that portion of the Airport Area that is generally bounded by MacArthur Boulevard, Jamboree Road, and Birch Street prior to residential development in this area. The ICDP is a prerequisite for the preparation of the regulatory plans called for in the City's General Plan, and it provides a framework for residential development on the Uptown Newport site and adjacent Koll Center Newport (see Figure 3-5, *Integrated Conceptual Development Plan*). The regulatory plans are required to describe more fully the proposed design of buildings, parking, streets, pedestrian ways, parks and open spaces, and how infrastructure required to support the proposed development will be provided. The Uptown Newport project site is part of the ICDP and therefore requires the preparation and adoption of a regulatory plan.

5.9.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

LU-1 Physically divide an established community.

LU-2 Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

LU-3 Conflict with any applicable habitat conservation plan or natural community conservation plan.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: LU-1 and LU-3. Threshold LU-3 will not be addressed further in the following analysis. However, impacts related to threshold LU-1 have been included in the following analysis due to subsequent concerns of the proposed project's potential to directly or indirectly result in the division of an established office business park/community.

5.9.3 Environmental Impacts

The proposed project would result in the development of a new master-planned community that would redevelop an existing office and industrial site located at the easterly edge of Koll Center Newport with residential and neighborhood-serving retail uses and park and open space. More specifically, the proposed Uptown Newport project would consist of mixed uses with up to 1,244 residential units, 11,500 square feet of neighborhood-serving retail space, and 2.05 acres of park space (see Figure 3-6, *Site Plan and Phasing Plan*). Proposed buildings would range from 30 feet to 75 feet in height, with residential towers up to 150 feet high (13 stories potentially). Residential product types would include a mix of townhomes and row houses, mid- and high-rise condominiums and apartments, and affordable housing. Parks and landscaped areas would be accessible to the public but privately maintained. Access to the site would be from Jamboree Road, Birch Street, and Von Karman Avenue (as emergency access only).

The proposed project would be developed in two primary phases, as shown in Figure 3-6, *Site Plan and Phasing Plan,* and summarized in Table 3-2, *Uptown Newport Land Use Summary*. Phase 1 would involve demolition of the existing single-story Half Dome building to accommodate the initial residential units and commercial development. The TowerJazz facility would continue operating during construction and initial operation of Phase 1. Development of Phase 1 is projected to start in 2014 and be completed in 2018. Timing for Phase 2 would be contingent on the existing lease of the TowerJazz facility, which is currently set to expire in March 2017, but could be extended to as late as March 2027. This DEIR conservatively assumes that Phase 2 could commence as early as spring 2017 with buildout through 2021. A detailed description of the proposed project is provided in Chapter 3, *Project Description*.

Project implementation would require approval of a Planned Community Development Plan (PCDP, which is a regulatory plan similar to a zoning document), a Phasing Plan, Design Guidelines, a Development Agreement, a traffic study pursuant to the City's Traffic Phasing Ordinance (TPO), Tentative Tract Maps, and an affordable housing implementation plan.

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts and additional issues expressed at the public scoping meeting held on December 15, 2011. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.9-1: PROJECT IMPLEMENTATION WOULD NOT DIVIDE AN ESTABLISHED BUSINESS COMMUNITY. [THRESHOLD LU-1]

Impact Analysis:

Phase 1

Potential Physical Barriers

The proposed project would result in the development of a new master-planned community that would redevelop an industrial site located at the easterly edge of Koll Center Newport with residential and neighborhood-serving retail uses and park and open space. The project site shares borders with office and commercial uses within Koll Center Newport. Given the existing industrial use of the project site and nearby office and commercial uses, the transition of the project site to residential land uses would alter the character of the existing business community by reducing the number of employees within the Airport Area, introducing residential population, and providing recreational open space amenities.

The proposed project would not, however, divide the existing business community. As noted earlier, the ICDP is a prerequisite for the preparation of the regulatory plans called for in the City's General Plan, and it provides a framework for residential development on the project site. The proposed project would carry out the intent of the ICDP and City's General Plan, as the project site would be developed with the mix of uses envisioned in and approved under the ICDP and in accordance with the provisions of the project-specific regulatory plan (i.e., PCDP). This regulatory zoning document and its implementation plans (Phasing Plan and Design Guidelines) would ensure the orderly development of the proposed project and would ensure that the project is developed in a manner that is not detrimental to the surrounding commercial and office business uses. Implementation of the proposed project is therefore consistent with the goals and objectives of the ICDP and City's General Plan for the project area (e.g., Land Use Element Policies LU 3.3, 6.15.5, 6.15.10, 6.15.11).

The proposed project would not introduce any roadways or infrastructure that would bisect or transect the adjacent business park uses. As shown in Figure 3-9, *Phase 2 Circulation Plan,* the design of the Uptown Newport project provides for primary and secondary project ingress and egress from Jamboree Road. A third access drive to and from Birch Street is also proposed via an existing non-exclusive access easement. This easement is within property owned by Courthouse Plaza ("Plaza Property"), and Uptown Newport has an access easement over the property. Courthouse Plaza is an owner's association which manages an existing office condominium property located on Birch Street, immediately adjacent to the Uptown Newport project site. The non-exclusive easement was established and recorded in 1978 and traverses 33 feet of the northwesterly Plaza Property. The 1978 easement replaces an earlier 1973 easement agreement between the property owners in which use by Uptown Newport's predecessors-in-interest had primary use and the fee owner's shared use was residual in nature. The access easement area has been historically shared by both the Uptown Newport property and the Plaza Property for vehicular ingress and egress to Birch Street (including rights of pedestrian passages).

The access easement is not used by other properties in the Koll Center and is not used by fast-food restaurants located adjacent to and east of the project site. Courthouse Plaza placed a gate on the southside of their parking area which restrict access to and from the Courthouse Plaza property on the southside, although Courthouse Plaza has easement rights to exit out of the existing drive on the south side of the Courthouse Plaza property.

The massing and heights of the proposed residential buildings would also not create a significant visual barrier or separation within the Koll Center Newport office park, as the massing and heights would be similar to those of the uses found throughout the project area. Building masses, elevations, and rooflines would be modulated to promote visual interest and to complement the existing architecture of the surrounding area. As demonstrated in more detail in Section 5.1, *Aesthetics,* the proposed project would be characterized by high-quality architectural and landscape design, which would be driven by the project's design guidelines. The design guidelines, which are described in more detail in Chapter 3, *Project Description,* would ensure the orderly design and development of the project's buildings and other site improvements.

Potential Community Barriers

Concerns were expressed in the scoping process (See Tables 2-1, *NOP Comment Summary,* and 2-2, *Scoping Meeting Comment Summary*) that project-generated student attendance at schools within the Santa Ana Unified School District (SAUSD) may disrupt community cohesiveness and that it would be more logical for project students to attend Newport Mesa Unified School District (NMUSD) schools. As detailed in Section 5.12, *Public Services,* the project site is located within the SAUSD service area (see Figure 5.12-2, *School Attendance Area Boundaries)*. Schools within the SAUSD that would serve the project include: James Monroe Elementary, McFadden Intermediate, and Century High School. The project site, however, is closer to NMUSD schools (East Bluff Elementary and Corona Del Mar High School).

SAUSD attendance by project-generated student would not result in the division of an existing community. As shown on Figure 3-3, *Aerial Photograph*, there are no existing residences proximate to the project site. The nearest residences are those within 3000 The Plaza residential development located approximately 0.25 mile northeast of the project site at the northeast corner of Jamboree Road and Campus Drive. SAUSD is the school district servicing students of 3000 The Plaza. Additionally, as described in Section 5.12, SAUSD is considering an option to develop an alternate school facility that would be closer to the project site and potentially serve Uptown Newport and other future residential projects as envisioned by the City's General Plan. The project applicant has an option to propose to modify the school district boundaries so that the entire project site would be within the boundaries of the neighboring NMUSD.

Therefore, development of the proposed project would not physically divide an established community.

Phase 2

The analysis above pertains to Phase 2 of the proposed project.

IMPACT 5.9-2: PROJECT IMPLEMENTATION WOULD POTENTIALLY CONFLICT WITH APPLICABLE PLANS ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AND ENVIRONMENTAL EFFECT. [THRESHOLD LU-2]

Impact Analysis:

Phase 1

General Plan Consistency

The project site has a General Plan land use designation of Mixed-Use Horizontal-2 (MU-H2), which provides for a horizontal intermixing of uses that may include regional commercial office, multifamily residential, vertical mixed-use buildings, industrial, hotel rooms, and ancillary neighborhood commercial uses. The MU-H2 designation applies to a majority of properties in the Airport Area, which includes the project site. The

General Plan's policies for the Airport Area call for the orderly evolution of this area from a single-purposed business park to a mixed-use district with cohesive residential villages integrated within the existing fabric of the office, industrial, retail, and airport-related businesses. The proposed project is consistent with the MU-H2 land use designation for the project site and would implement the City's General Plan goals and policies for this portion of the Airport Area, since it would integrate a mix of residential and neighborhood-serving uses and park and open space into an existing office business park.

A detailed analysis of the proposed project's consistency with the applicable goals and policies of the various elements of the City's General Plan is provided in Table 5.9-1, *General Plan Consistency Analysis*. The analysis in Table 5.9-1 concludes that the proposed project would be consistent with the applicable goals and policies of the City's General Plan. Therefore, implementation of the proposed project would not result in significant land use impacts related to relevant Newport Beach General Plan goals and policies.

Zoning Code Consistency

The current zoning designation of the project site is Industrial Site 1 of the Koll Center Newport Planned Community (PC-15), which permits light industrial and office- and commercial-related uses. In order to accommodate the proposed project, an amendment to the PC-15 zoning designation would be required to remove the subject property from the current Planned Community designation and a new PCDP would be adopted as the Regulatory Plan for the project site. The project's PCDP would implement the Newport Beach General Plan and would serve as the controlling zoning designation for the project site. As such, the PCDP would act as the regulatory document that the City of Newport Beach would use to implement the proposed project and help maintain consistency with and carry out the goals, objectives, and policies of the General Plan and ICDP.

Development of the proposed project would be implemented in accordance with the ICDP and City's General Plan, which allows for up to 1,244 dwelling units, 11,500 square feet of retail and two acres of park area.

The PCDP outlines the allowed density, list of permitted uses, development standards (e.g., parking requirements, setbacks, building heights, lighting, etc.), infrastructure requirements, and implementation programs. Since the proposed project would be built over time, existing land uses on the site would continue to be allowed as nonconforming uses and not be required to conform to the regulations outlined in the PCDP. The regulations outlined in the PCDP are also intended to provide a range of permitted development options and maintain flexibility to accommodate changes in the economy, land value, and demand.

Development of the proposed project would also be required to adhere to the project's design guidelines and phasing plan, which are described in more detail in Chapter 3, *Project Description*. The guidelines would ensure the orderly design and development of the project's buildings and other site improvements.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Land Use Element	
Goal LU 2 – A living, active, and diverse environment that complements all lifestyles and enhances neighborhoods, without compromising the valued resources that make Newport Beach unique. It contains a diversity of uses that support the needs of residents, sustain and enhance the economy, provide job opportunities, serve visitors that enjoy the City's diverse recreational amenities, and protect its important environmental setting, resources, and quality of life.	
LU 2.1 Residential-Serving Land Uses (page 3-6). Accommodate uses that support the needs of Newport Beach's residents including housing, retail, services, employment, recreation, education, culture, entertainment, civic engagement, and social and spiritual activity that are in balance with community natural resources and open spaces.	***Consistent:*** The proposed project would support the needs of Newport Beach since it would develop a mixed-use project of up to 1,244 residential units, 11,500 square feet of neighborhood-serving retail space, and 2.05 acres of park space, consistent with the General Plan Land Use Plan.
LU 2.2 Sustainable and Complete Community (page 3-6). Emphasize the development of uses that enable Newport Beach to continue as a self-sustaining community and minimize the need for residents to travel outside of the community for retail, goods and services, and employment.	***Consistent:*** The proposed project would develop a new master-planned community that would introduce residential and neighborhood-serving retail uses and park and open space into an existing office business park known as Koll Center Newport. By integrating residential uses within an and adjacent to commercial and office uses, this would provide residents of the project with an opportunity to seek employment in the many businesses in and around Koll Center Newport and other nearby business and employment centers in Newport Beach. Additionally, the inclusion of up to 11,500 square feet of neighborhood-serving retail space would not only serve the project residents, but also the many businesses adjacent to and near the project site.
LU 2.3 Range of Residential Choices (page 3-6). Provide opportunities for the development of residential units that respond to community and regional needs in terms of density, size, location, and cost. Implement goals, policies, programs, and objectives identified within the City's Housing Element.	***Consistent:*** The proposed project would develop up to 1,244 residential units, with proposed buildings ranging from 30 feet to 150 feet in height and units offering a range of floor plans and amenities. Residential product types would include a mix of townhomes and row houses, mid- and high-rise condominiums and apartments, and affordable housing.
LU 2.8 Adequate Infrastructure (page 3-8). Accommodate the types, densities, and mix of land uses that can be adequately supported by transportation and utility infrastructure (water, sewer, storm drainage, energy, and so on) and public services (schools, parks, libraries, seniors, youth, police, fire, and so on).	***Consistent:*** As concluded in Sections 5.12, *Public Services*, and 5.15, *Utilities and Service Systems*, the proposed project would be adequately served by the necessary public services and utilities and service systems. Additionally, to ensure that adequate utility infrastructure is provided by phase, the project's PCDP and Phasing Plan (which are discussed in Chapter 3, *Project Description*), would ensure that the infrastructure needed for each phase of the project be implemented in accordance with the provisions outlined in the Phasing Plan. The project's PCDP and Phasing Plan also outline a framework for the orderly development of site improvements and infrastructure such as new pedestrian paths (e.g., sidewalks, paseos), driveways, and roadways. Refer to Sections 5.12, *Public Services*, and 5.15, *Utilities and Service Systems*, for further information and analysis regarding public services and utility infrastructure, respectively.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Goal LU 3 – A development pattern that retains and complements the City's residential neighborhoods, commercial and industrial districts, open spaces, and natural environment.	
LU 3.3 Opportunities for Change (page 3-9). Provide opportunities for improved development and enhanced environments for residents in the following districts and corridors: • **John Wayne Airport Area**: re-use of underperforming industrial and office properties and development of cohesive residential neighborhoods in proximity to jobs and services.	***Consistent:*** In accordance with this policy and the ICDP for the Airport Business Area, the proposed project would develop a new master-planned community that would introduce 1,244 residential units and neighborhood-serving retail uses and park and open space into an existing office business park known as Koll Center Newport. As shown in Figure 3-6, *Site Plan and Phasing Plan*, the project site would be configured with a pattern of streets and blocks that provide a pedestrian-friendly environment, with strong connectivity to adjacent commercial and office areas. The proposed pattern of development would offer a strong sense of community, connectivity, and livability and would be in close proximity to job-rich areas.
LU 3.8 Project Entitlement Review with Airport Land Use Commission (page 3-10). Refer the adoption or amendment of the General Plan, Zoning Code, specific plans, and Planned Community development plans for land within the John Wayne Airport planning area, as established in the JWA Airport Environs Land Use Plan (AELUP), to the Airport Land Use Commission (ALUC) for Orange County for review, as required by Section 21676 of the California Public Utilities Code. In addition, refer all development projects that include buildings with a height greater than 200 feet above ground level to the ALUC for review.	***Consistent:*** The proposed project would require a determination of consistency by ALUC with the AELUP for JWA in accordance with this policy and the requirements outlined in the AELUP, as the proposed project requires an amendment to the Koll Center Newport PCDP adoption of its own zoning (PCDP) and includes residential towers within the project site that exceed 200 feet above mean sea level (amsl). The ALUC hearing for the proposed project must occur prior to the Newport Beach City Council taking action on this project. If ALUC determines that the project is not consistent with the AELUP, the Newport Beach City Council may override this finding by a two-thirds vote. If an override is made, a significant unavoidable adverse impact would result and a Statement of Overriding Considerations would be required to be made by the City Council at the time action on the project is taken.
Goal LU 5.6 – Neighborhoods, districts, and corridors containing a diversity of uses and buildings that are mutually compatible and enhance the quality of the City's environment.	
LU 5.6.1 Compatible Development (page 3-61). Require that buildings and properties be designed to ensure compatibility within and as interfaces between neighborhoods, districts, and corridors.	***Consistent:*** As shown in Figure 3-6, *Site Plan and Phasing Plan*, the project site would be configured with a pattern of streets and blocks that provide a pedestrian-friendly environment, with strong connectivity to adjacent commercial and office areas. For example, as outlined in the project's design guidelines, a network of paseos, open space, and pedestrian walkways would be introduced into the community to serve as connections between project neighborhoods and also provide linkages to the areas surrounding Uptown Newport. The proposed pattern of development would offer a strong sense of community, connectivity, and livability. Additionally, the project-specific regulatory plan (i.e., PCDP) and its implementation plans (Phasing Plan and Design Guidelines) would ensure the orderly development of the proposed project and would ensure that the project is developed in a manner that is not detrimental to the surrounding commercial and office business uses. During Phase 1, which would involve demolition of the Half Dome building to accommodate the initial residential units (up to 680) and commercial development, the TowerJazz facility would continue operating during construction and initial operation of Phase 1. The project's PCDP, Phasing Plan, and design guidelines outline development standards and design guidelines (e.g., setbacks, landscaped edges, and

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
	buffers) that would ensure that an adequate amount of separation and buffers are provided between the Phase 1 residential buildings and the TowerJazz facility that would continue operating during construction and initial operation of Phase 1. Additionally, a number or improvements and mitigation are included in Sections 5.7, *Hazards and Hazardous Materials*, and 5.10, *Noise*, to ensure that operation of TowerJazz facility would not result in significant impacts to Phase 1 residents. Furthermore, the parking area for TowerJazz would be separate from the residential areas of Phase 1 and would be gated to ensure that vehicle conflicts would not occur between the Phase 1 residences and TowerJazz.
LU 5.6.2 Form and Environment (page 3-61). Require that new and renovated buildings be designed to avoid the use of styles, colors, and materials that unusually impact the design character and quality of their location such as abrupt changes in scale, building form, architectural style, and the use of surface materials that raise local temperatures, result in glare and excessive illumination of adjoining properties and open spaces, or adversely modify wind patterns.	***Consistent:*** The proposed architectural and landscape design would be driven by the project's design guidelines. The design and construction of all project-related buildings and improvements would be required to adhere to the design guidelines. Among other things, the design guidelines would regulate building form, massing, architectural style, and the use of surface materials. Therefore, implementation of the design guidelines would ensure the orderly design and development of the project's buildings and other site improvements. Additionally, the massing and heights of the proposed residential buildings would not create a significant visual barrier or separation within the office park, as the massing and heights would be similar to those of the uses found throughout the project area. Building masses, elevations, and rooflines would be modulated to promote visual interest and to complement the existing architecture of the surrounding area.
LU 5.6.3 Ambient Lighting (page 3-62). Require that outdoor lighting be located and designed to prevent spillover onto adjoining properties or significantly increase the overall ambient illumination of their location.	***Consistent:*** The lighting associated with the proposed project would be directed toward the interior of the site so as not to create offsite impacts. All exterior lighting would be designed, arranged, directed, or shielded to contain direct illumination on-site, thereby preventing excess illumination and light spillover onto adjoining land uses and/or roadways. Development of the proposed project would also be required to adhere to all applicable City lighting standards. Additionally, project lighting would be required to adhere to the provisions outlined in Section 20.30.070, *Outdoor Lighting*, of the City's Municipal Code and Section 3.5 (Lighting) of the project's PCDP. Furthermore, development of the proposed project would be required to comply with California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6, of the California Code of Regulations, which outlines mandatory provisions for lighting control devices and luminaries. Refer to Section 5.1, *Aesthetics*, for a detailed analysis of the proposed project's potential impacts related to lighting.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Goal LU 6.15 – A mixed-use community that provides jobs, residential, and supporting services in close proximity, with pedestrian-oriented amenities that facilitate walking and enhance livability.	
LU 6.15.1 Land Use Districts and Neighborhoods (page 3-102). Provide for the development of distinct business park, commercial, and airport-serving districts and residential neighborhoods that are integrated to ensure a quality environment and compatible land uses.	***Consistent:*** See responses to Policy LU 3.3 of Goal LU 3 and Policies LU 5.6.1 and 5.6.2 of Goal LU 5.6.
LU 6.15.3 Airport Compatibility (page 3-102). Require that all development be constructed in conformance with the height restrictions set forth by Federal Aviation Administration (FAA), Federal Aviation Regulations (FAR) Part 77, and Caltrans Division of Aeronautics, and that residential development be located outside of the 65 dBA CNEL noise contour specified by the 1985 JWA Master Plan.	***Consistent:*** Based on FAA's aeronautical study for the proposed project (pursuant to FAA Part 77 regulations), three of 11 selected latitude/longitude building points onsite, were identified as obstacles under the obstruction standards of Section 77.199(a) of Title 14 CRF Part 77 by approximately one to three feet. These three points would penetrate the JWA horizontal airspace surface and therefore be an obstruction to JWA operations. In response to the FAA's aeronautical study the project's PCDP was amended to require that buildings and any appurtenances can be no greater than the 203.68 feet amsl established for JWA. Therefore, the proposed project is not expected to result in an inconsistency with the building height limitations set forth under the current civilian airport standards in the AELUP and would not adversely affect JWA's aeronautical operations or navigational-aid siting criteria, including interference with navigational aids or published flight paths and procedures. Additionally, a very small portion of the project site along the western boundary fronting Jamboree Road falls within the future 65 dBA CNEL aircraft operation noise contours for JWA, as shown in Figure 5.10-4, *John Wayne Airport Future Noise Level Contours*. This portion of the proposed project would not include residential units, as it would be developed with a landscaped parkway and meandering sidewalk. In addition, the City's General Plan Noise Element requires that residential development in the Airport Area be located outside of the 65 dBA CNEL noise contour (Policy N 3.2). The proposed would be developed in accordance with this policy.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
LU 6.15.5 Residential and Support Uses (page 3-105). Accommodate the development of a maximum of 2,200 multi-family residential units, including work force housing, and mixed-use buildings that integrate residential with ground level office or retail uses, along with supporting retail, grocery stores, and parklands. Residential units may be developed only as the replacement of underlying permitted nonresidential uses. When a development phase includes a mix of residential and nonresidential uses or replaces existing industrial uses, the number of peak hour trips generated by cumulative development of the site shall not exceed the number of trips that would result from development of the underlying permitted nonresidential uses. However, a maximum of 550 units may be developed as infill on surface parking lots or areas not used as occupiable buildings on properties within the Conceptual Development Plan Area depicted on Figure LU22 provided that the parking is replaced on site.	***Consistent:*** In accordance with this policy and the ICDP for the Airport Business Area, the proposed project would develop a new master-planned community that would introduce residential and neighborhood-serving retail uses and park and open space into an existing office business park known as Koll Center Newport. The proposed project would include redevelopment of the project site into a high-density mixed-use residential project adjacent and in close proximity to existing office and commercial land uses that provide jobs and supporting services within the Airport Area. More specifically, the proposed project would consist of mixed uses with up to 1,244 residential units, 11,500 square feet of neighborhood-serving retail space, and 2.05 acres of park space. Under the proposed project, 632 units would be developed as replacement units for redevelopment of the existing industrial uses; 290 additive units would be allocated to the proposed project in accordance with the City's General Plan and the ICDP; and 322 density bonus units would be allocated pursuant to Chapter 20.32 (Density Bonus) of the City's Municipal Code. The proposed project would therefore develop a portion of the residential units envisioned and approved for the Airport Business Area. Additionally, the number of peak hour trips generated by development of the project site would not exceed the number of trips attributable to existing permitted nonresidential uses. A maximum of 2,200 multifamily residential units could be built in the Airport Area with a cap of 1,650 residential units that can be developed on a conversion basis (replacement units) in addition to 550 units allowed as infill development (additive units). The City's General Plan provides for the conversion of existing land uses in the Airport Area to residential uses on a traffic neutral basis. The City applies conversion factors for determining consistency with the trip neutral requirement of this policy. The application of the conversion factors to the Airport Area properties is documented in a report titled "Airport Area Residential & Mixed-Use Adjustment Factors for Traffic Analyses in Newport Beach," prepared by Richard M. Edmonston, P.E., and dated March 10, 2009. The Uptown Newport project includes the conversion of existing light industrial and commercial office uses at the project site. Existing development at the site includes approximately 436,000 square feet of industrial and office square footage. When applying the City's conversion methodology to the existing site square footages, a total of 694 residential units would be allocated to the site as replacement units. However, a total of 442,775 square feet of industrial and commercial building are allowed under the General Plan. Therefore, an additional 8 replacement units would be allocated to the site based on the allowed land uses and square foot allocations in the General Plan. However, these additional 8 units are not proposed nor included in this analysis. An additional 290 units were allocated to the site as additive units under the Koll-Conexant Integrated

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
	Conceptual Development Plan, for a total of 984 replacement and additive units. Retail uses planned as part of the Uptown Newport project were factored in by subtracting out the equivalent units for 11,500 square feet of retail planned within the Uptown Newport project. The retail uses reduce the number of units by 62, for a total of 922 additive and replacement units. In addition to the replacement and additive units, the Uptown Newport project qualifies for a density bonus under California law. Density bonuses reward a developer who agrees to build a certain percentage of affordable-income housing by allowing the developer to build more residential units than would otherwise be allowed under the local agency's regulations. The Uptown Newport project is eligible for a density bonus of up to 35 percent, or 322 bonus units, with 20 percent of the base units designated as affordable units. The total number of units planned for the Uptown Newport project are summarized below: • Replacement Units: 694 • Additive Units: 290 • Less Units Converted to Retail: - 62 • Base Units Before Affordable Bonus: 922 • Affordable Density Bonus Units: 322 • Total Units: 1,244 Based on the conversion of the existing land uses to residential using the Airport Area conversion factors, the Uptown Newport project is consistent with the traffic neutral component of this policy. The proposed project's impacts to intersections and roadway segments in the vicinity of the project site are provided in Section 5.14, *Transportation and Traffic*.
LU 6.15.6 Size of Residential Villages (page 3-105). Allow development of mixed-use residential villages, each containing a minimum of 10 acres and centered on a neighborhood park and other amenities (as conceptually illustrated in Figure LU23).	***Consistent:*** The proposed project would entail redevelopment of the 25-acre project site (which exceeds the 10-acre requirement) into a high-density mixed-use residential project that would include up to 1,244 residential units, 11,500 square feet of retail, and 2.05 acres of park space. As shown in Figure 3-6, *Site Plan and Phasing Plan*, each phase of the proposed would be served by a centrally-located neighborhood park, which could include amenities such as activity lawns, fire place and barbecue courtyards, and sport courts including but not limited to sand volleyball, bocce ball, crotchet, or horse shoes. In addition to the neighborhood parks, the proposed project would incorporate common open space areas, private open space areas, greenbelts, and ancillary amenities to serve residents and visitors in accordance with the provisions outlined in the project's PCDP. Additionally, as a part of the proposed project, a pedestrian and bicycle easement would be provided along Jamboree Road. Within this easement, a 12-foot wide sidewalk would be constructed as a part of the project to accommodate pedestrians and bicycles.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
LU 6.15.8 First Phase Development Density (page 3-106). Require a residential density of 45 to 50 units per net acre, averaged over the first phase for each residential village. This shall be applied to 100 percent of properties in the first phase development area whether developed exclusively for residential or integrating service commercial horizontally on the site or vertically within a mixed-use building. On individual sites, housing development may exceed or be below this density to encourage a mix of housing types, provided that the average density for the area encompassed by the first phase is achieved.	***Consistent:*** The ICDP area is exempt from this specific numerical requirement by establishing a minimum density of 30 dwelling units per net acre and a maximum density of 50 dwelling units per net acre. The proposed project has an overall density of 49 dwelling units per acre exclusive of density bonus units and 67 dwelling units per acre inclusive of density bonus units. The proposed project is consistent with the intent of demonstrating a critical mass of development within the first phase by providing up to 680 residential units in the first phase (58 dwelling units per net acre exclusive of density bonus units and 74 dwelling units per net acre inclusive of density bonus units)
LU 6.15.9 Subsequent Phase Development and Location (page 3-106). Subsequent phases of residential development shall abut the first phase or shall face the first phase across a street. The minimum density of residential development (including residential mixed-use development) shall be 30 units per net acre and shall not exceed the maximum of 50 units per net acre averaged over the development phase.	***Consistent:*** The second phase of the proposed project consists of up to 564 dwelling units and is adjacent to and abuts the first phase of the project. Phase 2 would have an overall density of 42 dwelling units per net acre exclusive of density bonus units and 56 dwelling units per acre inclusive of density bonus units.
LU 6.15.10 Regulatory Plans (page 3-106). Require the development of a regulatory plan for each residential village, which shall contain a minimum of 10 acres, to coordinate the location of new parks, streets, and pedestrian ways; set forth a strategy to accommodate neighborhood-serving commercial uses and other amenities; establish pedestrian and vehicular connections with adjoining land uses; and ensure compatibility with office, industrial, and other nonresidential uses.	***Consistent:*** Development of the 25-acre project site (which exceeds the 10-acre requirement) would be implemented in accordance with the regulatory plans called for in the ICDP and City's General Plan. More specifically, under the proposed project, the project site would be developed with the mix of uses envisioned in and approved under the ICDP and in accordance with the proposed PCDP, Development Agreement, phasing plan, and design guidelines.
LU 6.15.12 Development Agreements (page 3-109). A Development Agreement shall be required for all projects that include infill residential units. The Development Agreement shall define the improvements and public benefits to be provided by the developer in exchange for the City's commitment for the number, density, and location of the housing units.	***Consistent:*** The proposed project includes a Development Agreement, which defines the improvements and public benefits to be provided by the project applicant in exchange for the City's commitment for the number, density, and location of the housing units proposed.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
LU 6.15.13 Standards (page 3-109). To provide a focus and identity for the entire neighborhood and to serve the daily recreational and commercial needs of the community within easy walking distance of homes, require dedication and improvement of at least 8 percent of the gross land area (exclusive of existing rights-of-way) of the first phase development in each neighborhood, or ½ acre, whichever is greater, as a neighborhood park. This requirement may be waived by the City where it can be demonstrated that the development parcels are too small to feasibly accommodate the park or inappropriately located to serve the needs of local residents, and when an in-lieu fee is paid to the City for the acquisition and improvement of other properties as parklands to serve the Airport Area. In every case, the neighborhood park shall be at least 8 percent of the total Residential Village Area or one acre in area, whichever is greater, and shall have a minimum dimension of 150 feet. Park acreage shall be exclusive of existing or new rights-of-way, development sites, or setback areas. A neighborhood park shall satisfy some or all of the requirements of the Park Dedication Ordinance, as prescribed by the Recreation Element of the General Plan.	***Consistent:*** The proposed project would provide the dedication and improvement of at least of 8 percent of the gross land area (exclusive of existing rights-of-way), or 2.05 acres of neighborhood parks. Phase 1 would include the dedication (the general public would have access to the park during daytime hours) and improvement of a 1.03 acre neighborhood park with a minimum dimension of 150 feet. Phase 2 would include the dedication and improvement of a 1.02 acre neighborhood park with a minimum dimension of 150 feet.
LU 6.15.14 Location (page 3-110). Require that each neighborhood park is clearly public in character and is accessible to all residents of the neighborhood. Each park shall be surrounded by public streets on at least two sides (preferably with on-street parking to serve the park), and shall be linked to residential uses in its respective neighborhood by streets or pedestrian ways.	***Consistent:*** The proposed project would provide 2.05 acres of parkland within two neighborhood parks, which would serve as principal focal points for the proposed residential community and provide connectivity between neighborhoods. Neighborhood parks within Uptown Newport would be publicly accessible, but would be privately maintained. The parks would be bounded on at least two sides by new streets and would be linked to residential uses in their respective neighborhood by streets and pedestrian ways (some pedestrian ways would be publically accessible). On-street parking adjacent to the parks would also be available.
LU 6.15.15 Aircraft Notification (page 3-110). Require that all neighborhood parks be posted with a notification to users regarding proximity to John Wayne Airport and aircraft overflight and noise.	***Consistent:*** In accordance with this policy and as outlined in the project's PCDP, the proposed project's neighborhood parks would be posted with a notification to users regarding proximity to John Wayne Airport and aircraft overflight and noise.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
LU 6.15.16 Standards (page 3-110). Require developers of multi-family residential developments on parcels 8 acres or larger to provide on-site recreational amenities. For these developments, 44 square feet of on-site recreational amenities shall be provided for each dwelling unit in addition to the requirements under the City's Park Dedication Ordinance and in accordance with the Parks and Recreation Element of the General Plan. On-site recreational amenities can consist of public urban plazas or squares where there is the capability for recreation and outdoor activity. These recreational amenities may also include swimming pools, exercise facilities, tennis courts, and basketball courts. Where there is insufficient land to provide on-site recreational amenities, the developer shall be required to pay cash in-lieu that would be used to develop or upgrade nearby recreation facilities to offset user demand as defined in the City's Park Dedication Fee Ordinance. The acreage of on-site open space developed with residential projects may be credited against the parkland dedication requirements where it is accessible to the public during daylight hours, visible from public rights-of-way, and is of sufficient size to accommodate recreational use by the public. However, the credit for the provision of on-site open space shall not exceed 30 percent of the parkland dedication requirements.	***Consistent:*** See responses to Policies R1-1 and R1.2 of Goal R 1. In addition to the neighborhood parks, the proposed project would provide a minimum of 44 square feet of onsite recreational amenities for each dwelling unit. Onsite recreational amenities may be public or private and may consist of public urban plazas, swimming pools, exercise facilities, tennis courts, basketball courts, and other amenities as approved by the Community Development Director. Private open space and recreational amenities developed as part of the proposed project may also include private courtyards, roof deck recreation areas, seating areas, BBQ facilities, swimming pools, exercise facilities, tennis courts, basketball courts, clubhouse rooms, and other amenities.
LU 6.15.17 Street and Pedestrian Grid (page 3-111). Create a pattern of streets and pedestrian ways that breaks up large blocks, improves connections between neighborhoods and community amenities, and is scaled to the predominantly residential character of the neighborhoods.	***Consistent:*** As shown in Figure 3-6, *Site Plan and Phasing Plan*, the project site would be configured with a pattern of streets and blocks that provide a pedestrian-friendly environment, with strong connectivity to adjacent commercial and office areas. Pedestrian-scaled streets and paseos would break up large blocks and provide connectivity within and between neighborhoods and the surrounding community. Project roadways and pedestrian ways would be arranged to break up large parcels and to establish clear way-finding and to provide convenient access to on-street parking, individual development parcels, and parking entrances within project site. The project site is also divided into smaller neighborhoods with a diversity of housing types in order to provide identity and reduce the overall perceived scale of the project. Additionally, as outlined in the project's design guidelines, sidewalks and greenbelts would be introduced into the community to serve as connections between project neighborhoods and also provide linkages to the areas surrounding Uptown Newport. The proposed pattern of development would offer a strong sense of community, connectivity, and livability.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
LU 6.15.18 Walkable Streets (page 3-111). Retain the curb-to-curb dimension of existing streets, but widen sidewalks to provide park strips and generous sidewalks by means of dedications or easements. Except where traffic loads preclude fewer lanes, add parallel parking to calm traffic, buffer pedestrians, and provide short-term parking for visitors and shop customers.	***Consistent:*** Sidewalks would be provided on both sides of all internal streets and have a minimum width of five to eight feet. The proposed project would create streetscapes that promote both safe and convenient driving practices, as well as encourage street-level pedestrian activity. Streets would be designed with sidewalks to engage pedestrians in a meaningful urban environment that establishes the visual and social identity of the overall place and its various neighborhoods. The streets would be purposefully landscaped and framed by architecturally-enhance buildings, and would be activated with such elements as small plazas, building lobbies, street-level common amenities, and front stoops to private residences. Additionally, as a part of the proposed project, a 23-foot wide pedestrian and bicycle easement would be provided along Jamboree Road. Within this easement, a 12-foot wide sidewalk would be constructed as a part of the project to accommodate pedestrians and bicycles. On-street parking would be provided throughout the project site to serve visitors. Parallel and diagonal parking would be permitted throughout the project site and encouraged in such locations that are likely to attract significant visitor concentrations to areas such as the mixed-use retail facilities, residential leasing offices, and park amenities.
LU 6.15.19 Connected Streets (page 3-111). Require dedication and improvement of new streets as shown on Figure LU23. The illustrated alignments are tentative and may change as long as the routes provide the intended connectivity. If traffic conditions allow, connect new and existing streets across Macarthur Boulevard with signalized intersections, crosswalks, and pedestrian refuges in the median.	***Consistent:*** Project roadways would be designed to establish clear way-finding and to provide convenient access to on-street parking, individual development parcels, and parking garage entrances within the proposed project. Clear connections would be provided to link the interior of the project roadways to Jamboree Road, Fairchild Road and Birch Street, including a signalized entry to the project site at Jamboree Road and Fairchild Road, in accordance with those shown in Figure LU23, Airport Area Residential Villages Illustrative Concept Plan, of the City's General Plan. The onsite roadway system would be privately owned and maintained, but open to the public
LU 6.15.21 Required Spaces for Primary Use (page 3-112). Consider revised parking requirements that reflect the mix of uses in the neighborhoods and overall Airport Area, as well as the availability of on-street parking.	***Consistent:*** The proposed project would incorporate the use of site-specific parking requirements through the PCDP that have been derived through parking studies of comparable developments in the Newport Beach area. Parking requirements are based on gross floor area for office/commercial uses and unit counts for residential units. Adequate, convenient parking for residents, guests, business patrons, and visitors would be provided onsite in accordance with the standards outlined in the project's PCDP and the City's Zoning Code.
LU 6.15.22 Building Massing (page 3-112). Require that high-rise structures be surrounded with low- and mid-rise structures fronting public streets and pedestrian ways or other means to promote a more pedestrian scale.	***Consistent:*** The design and construction of high-rise buildings would be required to adhere to the provisions outlined in the proposed project's PDCP, which implement this policy. For example, as outlined in the project's PCDP, tower portions of buildings are required to be at least partially surrounded with low- and mid-rise structures (up to 75 feet) fronting public streets and pedestrian ways or other means to promote a more pedestrian scale. Additionally, the distance between the tower portions of buildings above 75 feet in height would be required to be a minimum of 75 feet.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
LU 6.15.23 Sustainability Development Practices (page 3-112). Require that development achieves a high level of environmental sustainability that reduces pollution and consumption of energy, water, and natural resources. This may be accomplished through the mix and density of uses, building location and design, transportation modes, and other techniques. Among the strategies that should be considered are the integration of residential with jobs-generating uses, use of alternative transportation modes, maximized walkability, use of recycled materials, capture and re-use of storm water on-site, water conserving fixtures and landscapes, and architectural elements that reduce heat gain and loss.	***Consistent:*** Sections 5.2, *Air Quality*, 5.5, *Greenhouse Gas Emissions*, 5.15, *Utilities and Service Systems*, address air quality, energy, global climate, and water supply impacts that would occur as a result of implementation of the proposed project, and apply mitigation measures and regulatory requirements to reduce any impacts, as applicable and feasible. For example, as outlined in Section 5.5, the proposed project is required to comply with the provisions of the 2008 Building and Energy Efficiency Standards and the 2010 Green Building Standards Code (CALGreen). Additionally, as discussed in Chapter 3, *Project Description*, the proposed project would implement a number of environmental sustainable practices, including but not limited to satellite-linked irrigation controllers; water-efficient landscaping; water quality best management practices to treat surface runoff from the project site; and low impact development practices. The project site is also close to employment uses in the Airport Area and would provide housing near these jobs and promote the use of alternative transportation modes and a pedestrian-oriented village. Furthermore, the proposed project includes a mix and intensity of residential and neighborhood-serving retail uses within an existing business office park, thereby encouraging walking/biking. As a part of proposed project, a comprehensive pedestrian linkage system consisting of sidewalks and paseos would be created that would not only provide an important and convenient linkage system throughout the project site, but also to adjacent and surrounding uses and to surrounding and nearby open space and recreation areas, thereby providing an alternative mode of transportation for residents and visitors. The proposed project's location close to existing OCTA bus routes provided along Jamboree Road and MacArthur Boulevard would also provide alternative forms of transportation for residents of the proposed project.
Housing Element	
Goal H 2 – A balanced residential community comprised of a variety of housing types, designs, and opportunities for all social and economic segments.	
HR 2.1 (page 5-68). Encourage preservation of existing and provision of new housing affordable to very low, low- and moderate income households.	***Consistent:*** The proposed project would develop up to 1,244 residential units. Residential product types would include a mix of townhomes and row houses, and mid- and high-rise condominiums and apartments. Of the total 1,244 residential units, up to 184 units would be set aside for affordable housing.
HR 2.3 (page 5-70). Approve, wherever feasible and appropriate, mixed residential and commercial use developments that improve the balance between housing and jobs.	***Consistent:*** The proposed project would consist of mixed uses with up to 1,244 residential units, 11,500 square feet of neighborhood-serving retail space, and 2.05 acres of park space. The introduction of new residences and commercial uses into a primarily office business area of the City would not only help locate new residents close to a wide array of jobs, but would also help improve the local and regional jobs-housing balance. As substantiated in Section 5.11, *Population and Housing*, the proposed project would add residential units to the existing jobs-rich City and improve the jobs/housing ratio.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Historical Resources Element	
Goal HR 2 – Identification and protection of important archeological and paleontological resources within the City.	
HR 2.1 New Development Activities (page 6-12). Require that, in accordance with CEQA, new development protect and preserve paleontological and archaeological resources from destruction, and avoid and mitigate impacts to such resources. Through planning policies and permit conditions, ensure the preservation of significant archeological and paleontological resources and require that the impact caused by any development be mitigated in accordance with CEQA.	***Consistent:*** As detailed in Section 5.4, *Cultural Resources*, given the potential to unearth archeological or paleontological resources in the project area during ground-disturbing activities, mitigation measures (4-1 and 4-2) require the project applicant to retain a qualified archaeologist and paleontologist who would monitor all ground-disturbing activities, assess any finds, and develop a course of action to preserve the finds, including donation of artifacts to an appropriate repository. As outlined in Mitigation Measure 4-1, the assessment of cultural resource finds also includes consultation with the City of Newport Beach and a representative of the affected Native American tribe (Gabrielino and/or Juaneno), if necessary. Refer to Section 5.4, *Cultural Resources*, for a detailed analysis of the proposed project's potential impacts to archeological and paleontological resources and applicable mitigation measures.
HR 2.2 Grading and Excavation Activities (page 6-13). Require a qualified paleontologist/archeologist to monitor all grading and/or excavation where there is a potential to affect cultural, archeological or paleontological resources. If these resources are found, the applicant shall implement the recommendations of the paleontologist/archeologist, subject to the approval of the City Planning Department.	***Consistent:*** See response to Policy HR 2.1 of Goal HR 2.
HR 2.3 Cultural Organizations (page 6-13). Notify cultural organizations, including Native American organizations, of proposed developments that have the potential to adversely impact cultural resources. Allow representatives of such groups to monitor grading and/or excavation of development sites.	***Consistent:*** See response to Policy HR 2.1 of Goal HR 2.
HR 2.4 Paleontological or Archaeological Materials (page 6-13). Require new development to donate scientifically valuable paleontological or archaeological materials to a responsible public or private institution with a suitable repository, located within Newport Beach, or Orange County, whenever possible.	***Consistent:*** See response to Policy HR 2.1 of Goal HR 2.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Circulation Element	
Goal CE 2.2 – A safe and efficient roadway system.	
CE 2.2.3 Traffic Control (page 7-14). Design traffic control measures to ensure City streets and roads function with safety and efficiency.	***Consistent:*** As part of the proposed project, the necessary traffic control measures would also be installed to ensure that the City's roadways function as intended. Additionally, the proposed project's traffic study (see Appendix M) was prepared in accordance with the City's traffic study guidelines. Refer to Section 5.14, *Transportation and Traffic*, for a discussion of the traffic study's conclusions.
CE 2.2.4 Driveway and Access Limitations (page 7-14). Limit driveway and local street access on arterial streets to maintain a desired quality of traffic flow. Wherever possible, consolidate driveways and implement access controls during redevelopment of adjacent parcels.	***Consistent:*** The proposed project would maintain the existing signalized and unsignalized access drives that provided access from Jamboree Road into the project site. All driveway improvements would be designed and constructed in accordance with the City's engineering standards to ensure safety and a desired quality of traffic flow.
CE 2.2.6 Emergency Access (page 7-14). Provide all residential, commercial, and industrial areas with efficient and safe access for emergency vehicles.	***Consistent:*** To address emergency access needs, the project's internal traffic and circulation components would be designed in accordance with all City of Newport Beach Fire Department (NBFD) design standards for emergency access. Additionally, the proposed project would be required to incorporate all applicable design and safety requirements in the most current adopted fire codes, building codes, and nationally recognized fire and life safety standards of the City and NBFD. Furthermore, during the building plan check and development review process, the City would coordinate with the Newport Beach Public Works Department, NBFD, and Newport Beach Police Department to ensure that adequate circulation and access are provided within the traffic and circulation components of the proposed project.
Goal CE 4.1 – A public transportation system that provides mobility for residents and encourages use of public transportation as an alternative to automobile travel.	
CE 4.1.4 Land Use Densities Supporting Public Transit (page 7-20). Accommodate residential densities sufficient to support transit patronage, especially in mixed use areas such as the Airport Area.	***Consistent:*** The proposed project's introduction of up to 1,244 high-density residential units and its location close to existing OCTA bus routes along Jamboree Road and MacArthur Boulevard would help support transit patronage. The project's residents would also have access to and be served by JWA, which is approximately 0.6 mile northwest of the site.
Goal CE 5.1 – Convenient trail systems that satisfy recreational desires and transportation needs.	
CE 5.1.1 Trail System (page 7-21). Promote construction of a comprehensive trail system as shown on Figure CE4.	***Consistent:*** As a part of the proposed project, a 23-foot wide pedestrian and bicycle easement would be provided along Jamboree Road. Within this easement, a 12-foot wide sidewalk would be constructed as a part of the project to accommodate pedestrians and bicycles. Therefore, the proposed project would implement a portion of the Class I bike trail along Jamboree Road, as called for in Figure CE4, Bikeways Master Plan, of the City's General Plan.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
CE 5.1.2 Pedestrian Connectivity (page 7-21). Link residential areas, schools, parks, and commercial centers so that residents can travel within the community without driving.	***Consistent:*** As a part of proposed project, a comprehensive pedestrian linkage system consisting of sidewalks and paseos would be created to provide an important and convenient linkage system not only throughout the project site, but also to adjacent and surrounding uses and to surrounding and nearby open space and recreation areas. Additionally, as outlined in the project's Design Guidelines, paseos would be introduced into the community connect project neighborhoods and provide linkages to the areas surrounding Uptown Newport. Furthermore, as noted above, a 12-foot wide sidewalk would be constructed along Jamboree Road as a part of the project to accommodate pedestrians and bicycles. The project's pedestrian circulation components would be designed and installed with all safety and accessibility requirements in mind, including Title 24 of the California Code of Regulations, and in a manner that would minimize conflicts with vehicles.
CE 5.1.3 Pedestrian Improvements in New Development Projects (page 7-22). Require new development projects to include safe and attractive sidewalks, walkways, and bike lanes in accordance with the Master Plan, and, if feasible, trails.	***Consistent:*** See response to Policy CE 5.1.2 of Goad CE 5.1.
CE 5.1.7 Bicycle Safety (page 7-22). Provide for safety of bicyclists, equestrians, and pedestrians by adhering to current national standards and uniform practices.	***Consistent:*** See response to Policy CE 5.1.2 of Goad CE 5.1.
CE 5.1.8 Bicycle Conflicts with Vehicles and Pedestrians (page 7-22). Minimize conflict points among motorized traffic, pedestrians, and bicycle traffic.	***Consistent:*** See response to Policy CE 5.1.2 of Goad CE 5.1.
CE 5.1.16 Bicycle and Pedestrian Safety (page 7-25). Provide for the safety of bicyclists and pedestrians through provision of adequate facilities, including maintenance of extra sidewalk width where feasible.	***Consistent:*** See response to Policy CE 5.1.2 of Goad CE 5.1.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Goal CE 6.2 – Reduced automobile travel through the use of travel demand management strategies.	
CE 6.2.1 Alternative Transportation Modes (page 7-29). Promote and encourage the use of alternative transportation modes, such as ridesharing, carpools, vanpools, public transit, bicycles, and walking; and provide facilities that support such alternate modes.	***Consistent:*** The proposed project includes a mix and intensity of residential and neighborhood-serving retail uses within an existing business office park, thereby encouraging walking/biking. As a part of proposed project, a comprehensive pedestrian linkage system consisting of sidewalks and paseos would also be created that would not only provide an important and convenient linkage system within the project site, but also to adjacent and surrounding uses and to surrounding and nearby open space and recreation areas, thereby providing an alternative mode of transportation for residents and visitors. The proposed project's location close to existing OCTA bus routes along Jamboree Road and MacArthur Boulevard would also provide alternative forms of transportation for residents of the proposed project. Additionally, as a part of the proposed project, a 23-foot wide pedestrian and bicycle easement would be provided along Jamboree Road. Within this easement, a 12-foot wide sidewalk would be constructed as a part of the project to accommodate pedestrians and bicycles. Furthermore, as outlined in the project's PCDP, bicycle racks would be provided within the project site.
Goal CE 7.1 – An adequate supply of convenient parking throughout the City.	
CE 7.1.1 Required Parking (page 7-29). Require that new development provide adequate, convenient parking for residents, guests, business patrons, and visitors.	***Consistent:*** See response to Policy LU 6.15.21 of Goal LU 6.15..
Recreation Element	
Goal R 1: Provision of Facilities – Provision of adequate park and recreation facilities that meet the recreational needs of existing and new residents of the community.	
R1.1 New Residential Subdivisions (page 8-39). Require developers of new residential subdivisions to provide parklands at five acres per 1,000 persons, as stated in the City's Park Dedication Fee Ordinance, or to contribute in-lieu fees for the development of public recreation facilities meeting demands generated by the development's resident population, as required in the City's Park Dedications Fees Ordinance.	***Consistent:*** In accordance with the City's parkland dedication requirements of 5 acres per 1,000 residents, the proposed project would require 13.63 acres of park space. As permitted by Section 19.52.050 (Determination of Land or Fee) of the City's Municipal Code, the parkland requirement can be met through the dedication of parkland, payment of in lieu fees, or a combination of both. As shown in Figure 3-6, *Site Plan and Phasing Plan*, the proposed project would provide 2.05 acres of parkland within two neighborhood parks, which would serve as principal focal points for the proposed residential community and provide connectivity between neighborhoods. The neighborhood parks could include amenities such as activity lawns, fire place and barbecue courtyards, and sport courts, including but not limited to sand volleyball, bocce ball, crotchet, or horse shoes. Neighborhood parks within Uptown Newport would be publicly accessible, but privately owned and maintained. The remainder of the project's parkland requirements would be met through the payment of in-lieu fees and/or provision of additional open space and private recreational facilities for parkland credits. Additionally, see responses to Policy LU 6.15.16 of Goal LU 6.15. Refer to Section 5.13, *Recreation*, for further information and analysis on parks and open space.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
R1.2 High-Density Residential Developments (page 8-39). Require developers of new high-density residential developments on parcels eight acres or larger, to provide on-site recreational amenities. For these developments, 44 square feet of on-site recreational amenities shall be provided for each dwelling unit in addition to the requirements under the City's Park Dedications and Fees Ordinance. On-site recreational amenities can consist of public urban plazas or squares where there is the capability for recreation and outdoor activity. These recreational amenities can also include swimming pools, exercise facilities, tennis courts, and basketball courts. Where there is insufficient land to provide on-site recreational amenities, the developer shall be required to pay the City of Newport Beach cash in-lieu that would be used to develop or upgrade nearby recreation facilities to offset user demand as defined in the City's Park Dedications and Fees Ordinance. The acreage of on-site open space developed with residential projects may be credited against the parkland dedication requirements where it is, for example, accessible to the public during daylight hours, visible from public rights-of-way, and of sufficient size to accommodate recreational use by the public.	***Consistent:*** See response to Policy R1.1 of Goal R 1. In addition to the neighborhood park acreage and amenities noted above, the proposed project would incorporate common open space areas, private open space areas, greenbelts, and ancillary amenities within the project to serve residents and visitors in accordance with the provisions outlined in the project's PCDP. As also outlined in the project's PCDP, 44 square feet of onsite recreational amenities would be provided for each dwelling unit in addition to the requirements under the City's Park Dedications and Fees Ordinance and in accordance with the Parks and Recreation Element of the General Plan. Additionally, as a part of the proposed project, a 23-foot wide pedestrian and bicycle easement would be provided along Jamboree Road. Within this easement, a 12-foot wide sidewalk would be constructed as a part of the project to accommodate pedestrians and bicycles. Furthermore, the project's residents would have access to nearby regional open space and recreation areas, including Upper Newport Bay, Mason Regional Park in Irvine, and the San Joaquin Freshwater Marsh.
Goal R 1: Accessibility of Facilities – Accessible parks and recreation facilities to persons with disabilities.	
R3.1 Adequate Access (page 8-42). Ensure that parks and recreation facilities include provisions for adequate access for persons with disabilities and that existing facilities are appropriately retrofitted to include such access as required by the Americans with Disabilities Act.	***Consistent:*** All park and recreation facilities would be designed and constructed to include provisions for adequate access for persons with disabilities in accordance with Title 24 of the California Code of Regulations.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Natural Resources Element	
Goal NR 1 – Minimized water consumption through conservation methods and other techniques.	
NR 1.1 Water Conservation in New Development (page 10-17). Enforce water conservation measures that limit water usage, prohibit activities that waste water or cause runoff, and require the use of water–efficient landscaping and irrigation in conjunction with new construction projects.	***Consistent:*** Section 5.15, *Utilities and Service Systems*, addresses water supply impacts that would occur as a result of implementation of the proposed project, and applies regulatory requirements to reduce any impacts, as applicable and feasible. Additionally, the proposed project would be required to comply with the water-efficient landscape requirements outlined in Chapter 14.17 (Water Efficient Landscape Requirements) of the City's Municipal Code. Furthermore, the proposed project would be required to comply with the provisions of the 2010 Green Building Standards Code, which contains requirements for indoor water use reduction and site irrigation conservation. Finally, as discussed in Chapter 3, *Project Description*, the proposed project would implement a number of environmental sustainable practices, including but not limited to satellite-linked irrigation controllers; water-efficient landscaping; water quality best management practices to treat surface runoff from the project site; and low impact development practices.
Goal NR 3 – Enhancement and protection of water quality of all natural water bodies, including coastal waters, creeks, bays, harbors, and wetlands.	
NR 3.4 Storm Drain Sewer System Permit (page 10-19). Require all development to comply with the regulations under the City's municipal separate storm drain system permit under the National Pollutant Discharge Elimination System.	***Consistent:*** As discussed in Section 5.8, *Hydrology and Water Quality*, the proposed project would be required to comply with the City's NPDES permit requirements, including the submittal and implementation of a Storm Water Pollution Prevention Plan (SWPPP) and best management practices (BMPs).
NR 3.9 Water Quality Management Plan (page 10-20). Require new development applications to include a Water Quality Management Plan (WQMP) to minimize runoff from rainfall events during construction and post-construction.	***Consistent:*** As discussed in Section 5.8, *Hydrology and Water Quality*, the project applicant prepared a preliminary Water Quality Management Plan (WQMP)(see Appendix I), which outlined a number of site-design, and source- and treatment-control BMPs. The low-impact development, source-control, and treatment-control BMP features would include but not be limited to an infiltration basin; filterra proprietary biotreatment devices or approved equivalents; a hydrodynamic separator; catch basin inserts; and proprietary roof drain stormwater treatment device. Implementation of these hydraulic and drainage design features would assist in the retention of stormwater and the recharge of groundwater. Refer to Section 5.8 for a detailed list of the proposed BMPs. Collectively, the BMPs outlined in the WQMP and the required preparation of a SWPPP would address the anticipated and expected pollutants of concern from the operational and construction phases of the proposed project. Additionally, through the development-review process, the City of Newport Beach complies with various statutory requirements necessary to achieve regional water quality objectives and protect groundwater and surface waters from pollution by contaminated stormwater runoff. Stormwater runoff generated from within the project site would be managed in accordance with all applicable federal, state, and local water quality rules and regulations in order to effectively minimize the project's impact on water quality.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
NR 3.10 Best Management Practices (page 10-20). Implement and improve upon Best Management Practices (BMPs) for residences, businesses, development projects, and City operations.	***Consistent:*** See response to Policies NR 3.4 and NR 3.9 of Goal NR 3.
NR 3.11 Site Design and Source Control (page 10-20). Include site design and source control BMPs in all developments. When the combination of site design and source control BMPs are not sufficient to protect water quality as required by the National Pollutant Discharge Elimination System (NPDES), structural treatment BMPs will be implemented along with site design and source control measures.	***Consistent:*** See response to Policies NR 3.4 and NR 3.9 of Goal NR 3.
NR 3.14 Runoff Reduction on Private Property (page 10-20). Retain runoff on private property to prevent the transport of pollutants into natural water bodies, to the maximum extent practicable.	***Consistent:*** See responses to Policies NR 3.4 and NR 3.19 of Goal NR 3.
NR 3.15 Street Drainage Systems (page 10-20). Require all street drainage systems and other physical improvements created by the City, or developers of new subdivisions, to be designed, constructed, and maintained to minimize adverse impacts on water quality. Investigate the possibility of treating or diverting street drainage to minimize impacts to water bodies.	***Consistent:*** See responses to Policies NR 3.4 and NR 3.19 of Goal NR 3.
NR 3.17 Parking Lots and Rights-of-Way (page 10-21). Require that parking lots and public and private rights-of-way be maintained and cleaned frequently to remove debris and contaminated residue.	***Consistent:*** The proposed project would be required to comply with all applicable City codes and regulations regarding the maintenance and keeping of public and private rights-of-way, including Sections 6.04.220, Persons Required to Clean Sidewalks, and 10.50.020, Nuisance, of the city's Municipal Code. Section 6.04.220 states that the occupant or tenant, or in the absence of an occupant or tenant, the owner, lessee, or proprietor of any real estate in the City in front of which there is a paved sidewalk shall cause said sidewalk to be swept or otherwise cleaned as frequently as necessary to maintain said sidewalks reasonably free of leaves, dirt, paper, litter, or rubbish of any kind. Sweepings from said sidewalk shall not be swept, or otherwise made or allowed to go into the street or gutter, but shall be disposed of by being placed in a refuse container by the person responsible for the cleanliness of said sidewalk. Additionally, Section 5.8, *Hydrology and Water Quality*, outlines a number of nonstructural source control BMPs that are included in the project's preliminary WQMP and would be required to be implemented as a part of the propose project, including street sweeping of private streets and parking lots.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
NR 3.19 Natural Drainage Systems (page 10-21). Require incorporation of natural drainage systems and stormwater detention facilities into new developments, where appropriate and feasible, to retain stormwater in order to increase groundwater recharge.	***Consistent:*** See response to Policies NR 3.4 and 3.9 of Goal NR 3. Additionally, runoff from the site is currently conveyed by underground storm drains to the existing drainage ponds along Von Karman Avenue located northwest of the project site within the Koll site. Drainage for the entire project site would continue to discharge into the drainage ponds.
NR 3.20 Impervious Surfaces (page 10-21). Require new development and public improvements to minimize the creation of and increases in impervious surfaces, especially directly connected impervious areas, to the maximum extent practicable. Require redevelopment to increase area of pervious surfaces, where feasible.	***Consistent:*** See response to Policy NR 3.19 of Goal NR 3. Collectively, implementation of these hydraulic and drainage design features would assist in the retention of stormwater and the recharge of groundwater. Under the Phase 1 condition, 12.5 percent of the project site would be pervious surfaces in comparison to the existing 13 percent. Upon completion of Phase 2, pervious areas onsite would be 22 percent of the project site in comparison to the existing 13 percent.
Goal NR 4 – Maintenance of water quality standards through compliance with the total maximum daily loads (TMDLs) standards.	
NR 4.4 Erosion Minimization (page 10-22). Require grading/erosion control plans with structural BMPs that prevent or minimize erosion during and after construction for development on steep slopes, graded, or disturbed areas.	***Consistent:*** See response to Policies NR 3.4 and 3.9 of Goal NR 3.Collectively, implementation of the BMPs outlined in the SWPPP and the project's proposed water quality design features would address the anticipated and expected erosion impacts during the construction and operational phases of the proposed project.
Goal NR 6 – Reduced mobile source emissions.	
NR 6.1 Walkable Communities (page 10-23). Provide for walkable neighborhoods to reduce vehicle trips by siting amenities such as services, parks, and schools in close proximity to residential areas.	***Consistent:*** See response to Policy CE 6.2.1 of Goal CE 6.2.
NR 6.2 Mixed-Use Development (page 10-23). Support mixed-use development consisting of commercial or office with residential uses in accordance with the Land Use Element that increases the opportunity for residents to live in proximity to jobs, services, and entertainment.	***Consistent:*** See response to Policy LU 2.2 of Goal LU 2 and Policy LU 6.15.5 of Goal 6.15.
Goal NR 8 – Reduced air pollutant emissions from construction activities.	
NR 8.1 Management of Construction Activities to Reduce Air Pollution (page 10-25). Require developers to use and operate construction equipment, use building materials and paints, and control dust created by construction activities to minimize air pollutants.	***Consistent:*** As outlined in Section 5.2, *Air Quality*, development of the proposed project would be required to adhere to a number of existing SCAQMD regulations that help reduce air pollutants from construction-related activities. Additionally, the proposed project would be required to comply with the construction-related mitigation measures outlined Section 5.2. Refer to Section 5.2 for additional information and analysis.
Goal NR 18 – Protection and preservation of important paleontological and archaeological resources.	
NR 18.1 New Development (page 10-34). Require new development to protect and preserve paleontological and archaeological resources from destruction, and avoid and minimize impacts to such resources in accordance with the requirements of CEQA. Through planning policies and permit conditions, ensure the preservation of significant	***Consistent:*** See response to Policies HR 2.1 and HR 2.3 of Goal HR 2.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
archeological and paleontological resources and require that the impact caused by any development be mitigated in accordance with CEQA.	
NR 18.3 Potential for New Development to Impact Resources (page 10-34). Notify cultural organizations, including Native American organizations, of proposed developments that have the potential to adversely impact cultural resources. Allow qualified representatives of such groups to monitor grading and/or excavation of development sites.	***Consistent:*** See response to Policies HR 2.1 and HR 2.3 of Goal HR 2.
NR 18.4 Donation of Materials (page 10-34). Require new development, where on site preservation and avoidance are not feasible, to donate scientifically valuable paleontological or archaeological materials to a responsible public or private institution with a suitable repository, located within Newport Beach or Orange County, whenever possible.	***Consistent:*** See response to Policies HR 2.1 and HR 2.3 of Goal HR 2.
Safety Element	
Goal S 7 – Exposure of people and the environment to hazardous materials associated with methane gas extraction, oil operations, leaking underground storage tanks, and hazardous waste generators is minimized.	
S 7.1 Known Areas of Contamination (page 11-28). Require proponents of projects in known areas of contamination from oil operations or other uses to perform comprehensive soil and groundwater contamination assessments in accordance with American Society for Testing and Materials standards, and if contamination exceeds regulatory action levels, require the proponent to undertake remediation procedures prior to grading and development under the supervision of the County Environmental Health Division, County Department of Toxic Substances Control, or Regional Water Quality Control Board (depending upon the nature of any identified contamination).	***Consistent:*** A Phase I Environmental Site Assessment and a Vapor Intrusion Health Risk Assessment to determine soil and groundwater contamination were prepared as a part of the proposed project and are included as Appendix H of this DEIR. The analysis, conclusions and recommendations of these assessments are discussed in detail in Sections 5.7, *Hazards and Hazardous Materials*, and 5.8, *Hydrology and Water Quality*. As stated in Section 5.7, Based on ESA and Vapor Intrusion studies, potential sources of contamination in the Phase 1 portion of the site are limited to the migration of VOCs in soil gas and groundwater from the former UST areas in the Phase 2 portion of the site. The detected VOC concentrations in the upper groundwater zone continue to decrease. As part of the conditions for Phase 1 development, the RWQCB would require continued monitoring and sampling of selected wells in the Phase 1 portion of the site. Additional groundwater remediation is scheduled for the Phase 2 portion of the site within the next 1 to 2 years. In the unlikely event that additional VOC migration were to occur from the Phase 2 area to the Phase 1 portion of the site, in situ groundwater mitigation could effectively be conducted. Additionally, although soil and groundwater remediation activities are ongoing, contaminated soil and groundwater is still present within the Phase 2 area of the project site. The lead oversight agency for the remediation is the California RWQCB. Phase 2 development could not occur until the RWQCB provides a

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
	"No Further Action" declaration or Letter of Allowance for residential construction. Phase 2 development, including ground disturbance that could impact Phase 1 residences, could not occur without the approval and oversight of the RWQCB.
S 7.5 Siting of Sensitive Uses (page 11-29). Develop and implement strict land use controls, performance standards, and structure design standards including development setbacks from sensitive uses such as schools, hospitals, day care facilities, elder care facilities, residential uses, and other sensitive uses that generate or use hazardous materials.	***Consistent:*** Phase 1 of the proposed project would involve demolition of the Half Dome building to accommodate the initial residential units (up to 680) and commercial development. The TowerJazz facility would continue operating during construction and initial operation of Phase 1. The project's PCDP, Phasing Plan, and design guidelines outline development standards and design guidelines (e.g., setbacks, landscaped edges, and buffers) that would ensure that an adequate amount of separation and buffers are provided between the Phase 1 residential buildings and the TowerJazz facility that would continue operating during construction and initial operation of Phase 1. Potential safety hazards relating to the proximity of Phase 1 residential development and the TowerJazz operation are addressed in Section 5.7, *Hazards and Hazardous Materials*.
Noise Element	
Goal N 1 Noise Compatibility – Minimized land use conflicts between various noise sources and other human activities.	
N 1.1 Noise Compatibility of New Development (page 12-25). Require that all proposed projects are compatible with the noise environment through use of Table N2, and enforce the interior and exterior noise standards shown in Table N3.	***Consistent:*** As discussed in detail in Section 5.10, *Noise*, the noise analysis demonstrates that the proposed project would comply with the requirements as outlined in the City of Newport Beach's noise standards. Refer to Section 5.10 for a detailed analysis on compatibility and compliance with noise standards.
N 1.2 Noise Exposure Verification for New Development (page 12-25). Applicants for proposed projects that require environmental review and are, located in areas projected to be exposed to a CNEL of 60 dBA and higher, as shown on Figure N4, Figure N5, and Figure N6 may conduct a field survey, noise measurements or other modeling in a manner acceptable to the City to provide evidence that the depicted noise contours do not adequately account for local noise exposure circumstances due to such factors as, topography, variation in traffic speeds, and other applicable conditions. These findings shall be used to determine the level of exterior or interior, noise attenuation needed to attain an acceptable noise exposure level and the feasibility of such mitigation when other planning considerations are taken into account.	***Consistent:*** A site-specific noise analysis was completed for the proposed project (see Appendix J), which includes a comprehensive assessment of the existing noise environment (including John Wayne Airport, Jamboree Road, and TowerJazz facility operations). Section 5.10, *Noise*, includes the findings and related mitigation to attain acceptable noise exposure levels.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
N 1.4 New Development in Urban Areas (page 12-25). Require that applicants of residential portions of mixed-use projects and high-density residential developments in urban areas (such as the Airport Area and Newport Center) demonstrate that the design of the structure will adequately isolate noise between adjacent uses and units (common floor/ceilings) in accordance with the California Building Code.	***Consistent:*** See response to Policy N 1.2 of Goal N1.1.
N 1.8 Significant Noise Impacts (page 12-26). Require the employment of noise mitigation measures for existing sensitive uses when a significant noise impact is identified. A significant noise impact occurs when there is an increase in the ambient CNEL produced by new development impacting existing sensitive uses. The CNEL increase is shown in the table below.	***Consistent:*** Section 5.10, *Noise*, discusses these potential long-term noise impacts. As concluded in Section 5.10, the proposed project would not generate transportation, or stationary long- term noise sources that would exceed the stated requirements under this policy. No mitigation measures would be required.

CNEL dBA	dBA increase
55	3
60	2
65	1
75	1
Over 75	Any increase considered significant

Goal N 2 – Minimized motor vehicle traffic and boat noise impacts on sensitive noise receptors.

N 2.1 New Development (page 12-26). Require that proposed noise-sensitive uses in areas of 60 dBA and greater, as determined the analyses stipulated by Policy N1.1, demonstrate that they meet interior and exterior noise levels.	***Consistent:*** Operations of the TowerJazz facility and traffic noise on Jamboree Road and other roads in the vicinity of the site would expose the proposed noise-sensitive uses to noise levels above 60 dBA CNEL. Mitigation measures were included in Section 5.10, *Noise*, to reduce noise at the proposed private and common outdoor living areas (i.e., patios, balconies, pools, playgrounds) below the City's 65 dBA CNEL exterior noise standard; these measures would include walls, site design, and patio enclosures. Mitigation measures such as upgraded windows and wall assemblies were also included to reduce noise levels at habitable rooms below the required 45 dBA CNEL.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
N 2.2 Design of Sensitive Land uses (page 12-26). Require the use of walls, berms, interior noise insulation, double paned windows, or other noise mitigation measures, as appropriate, in the design of new residential or other new noise sensitive land uses that are adjacent to major roads. Application of the Noise Standards in Table N3 shall govern this requirement.	***Consistent:*** See response above to Policy N2.1 of Goal N2.
Goal N 3 – Protection of Newport Beach residents from the adverse noise impacts of commercial air carrier operations at John Wayne Airport as provided in the City Council Airport Policy.	
N 3.2 Residential Development (page 12-27). Require that residential development in the Airport Area be located outside of the 65 dBA CNEL noise contour no larger than shown in the 1985 JWA Master Plan and require residential developers to notify prospective purchasers or tenants of aircraft overflight and noise.	***Consistent:*** A small portion of the project site (eastern boundary fronting Jamboree Road) is located within the 60 dBA CNEL aircraft operation noise contours for JWA. However, no residential uses would be developed in this portion of the project site. This area would be developed with a landscaped parkway and sidewalk.
Goal N 4 Minimization of Nontransportation-Related Noise – Minimized nontransportation-related noise impacts on sensitive noise receptors.	
N 4.1 Stationary Noise Sources (page 12-29). Enforce interior and exterior noise standards outlined in Table N3, and in the City's Municipal Code to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources, such as heating, ventilation, and air conditioning equipment.	***Consistent:*** As outlined in Section 5.9, *Noise*, equipment sound ratings of new heating, ventilation, and air conditioning (HVAC) equipment installed in the City of Newport Beach are reviewed during plan check and tested in the field after installation. According to Section 10.26.045 of the City's Municipal Code, new permits for HVAC equipment in or adjacent to residential areas shall be issued only where the sound rating of the proposed equipment does not exceed 55 dBA and is installed with a timing device that would deactivate the equipment during the hours of 10 PM to 7 AM. Also see response to Policies N 1.8 and 2.1.
N 4.6 Maintenance or Construction Activities (page 12-30). Enforce the Noise Ordinance noise limits and limits on hours of maintenance or construction activity in or adjacent to residential areas, including noise that results from in-home hobby or work related activities.	***Consistent:*** As noted in Section 5.9, *Noise*, the City realizes that the control of construction noise is difficult and therefore provides exemption for this type of noise. According to the City of Newport Beach Municipal Code Section 10.26.035, Exemptions, noise sources associated with construction, repair, remodeling, demolition, or grading of any real property are exempt from the noise level limits shown in the Table 5.9-4 of Section 5.9. Such activities shall instead be subject to the provisions of the City of Newport Beach Municipal Code Section 10.28.040, Construction Activity – Noise Regulations. According to this chapter, construction is permitted on weekdays between the hours of 7:00 AM and 6:30 PM and Saturdays between the hours of 8:00 AM and 6:00 PM. Construction is not permitted on Sundays or any federal holiday. Exceptions to these construction hours can be made when the maintenance, repair, or improvement is of a nature that cannot feasibly be conducted during normal business hours, as outlined in Section 10.28.040 of the City's Municipal Code. All construction activities proposed within the project site would be required to adhere to these standards. Additionally, any project-related maintenance activities would be required to adhere to the standard outlined in Section 10.28.045, Real Property Maintenance-Noise Regulations, of the City's Municipal Code. Also see response to Policy N 4.1.

Table 5.9-1
General Plan Consistency Analysis

Applicable City of Newport Beach General Plan Goals and Policies	Project Consistency
Goal N 5 – Minimized excessive construction-related noise.	
N 5.1 Limiting Hours of Activity (page 12-30). Enforce the limits on hours of construction activity.	***Consistent:*** See response to Policy N 4.6 of Goal N 4.

Airport Area Integrated Conceptual Development Plan Consistency

The ICDP, which was adopted by the Newport Beach City Council September 28, 2010, is a prerequisite for the preparation of the regulatory plans called for in the City's General Plan, and it provides a framework for residential development in the Airport Area, which includes the project site. More specifically, the ICDP calls for the redevelopment of the project site (which encompasses 25 acres) and a portion (12.7 acres) of the 75-acre Koll property with new residential development and open space, integrated within the existing office park. The ICDP allows the development of up to 1,504 residential units, with 1,244 units on the project site and 260 on the Koll property.

The preparation and adoption of certain regulatory plans for the development of residential uses on the project site are required. The project's regulatory plan (i.e., PCDP) and its implementing action plans (Phasing Plan and Design Guidelines) describe fully the proposed development density, design of buildings, housing mix, building height, parking, streets, pedestrian ways, parks and open spaces, and how infrastructure required to support the proposed development will be provided. As proposed, the project's PCDP is aimed at fulfilling the overarching goals and policies of the City's General Plan, as the PCDP was prepared based upon the goals, guidelines, and principles of the ICDP, and was designed to implement in greater detail and specificity those goals, guidelines and principles.

Consistent with the ICDP and the project's plans and guidelines, the proposed project would consist of a mix of uses including up to 1,244 residential units, 11,500 square feet of neighborhood-serving retail space, and 2.05 acres of park space. As shown in Figure 3-6, *Site Plan and Phasing Plan*, development of the project site would be configured with a pattern of streets and blocks that provide a pedestrian-friendly environment, with strong connectivity to adjacent commercial and office areas. The proposed project would be consistent with the ICDP since it would develop a residential community with pedestrian-scaled streets and paseos that break up the large blocks and provide connectivity between the project site and its community amenities and with surrounding commercial and office uses. The proposed pattern of development, as more fully described and regulated by the PCDP, Phasing Plan, and Design Guidelines would offer a strong sense of community, connectivity, and livability.

UCI LRDP Consistency

As noted earlier, Jamboree Road forms the eastern boundary of the project site, and beyond Jamboree Road is undeveloped open space within the North Campus planning area of UCI, which is covered under the 2007 LRDP and is currently occupied by a few academic and support facilities, an arboretum, and a child development center. As shown in Figure 5.1-1, *UCI Land Use Plan for 2007 Long Range Development Plan*, the North Campus area is designated Mixed Use-Commercial. Permitted uses in this land use designation include facilities for office, research and development, and academic activities; commercial and retail space; conference facilities; university- and non-university-related residential facilities; support uses such as child care and recreation facilities; parking; and other related uses. The approved development program for North Campus under the 2007 LRDP includes 950,000 square feet of office and/or research and development space and 435 multi-family dwelling units.

The proposed project would consist of mixed uses with up to 1,244 residential units, 11,500 square feet of neighborhood-serving retail space, and 2.05 acres of park space. The uses associated with the proposed project would be compatible and complementary to the uses envisioned for North Campus. John Wayne AELUP Consistency

The project site is 0.6 mile southeast of JWA and is in the AELUP for JWA. Since the residential towers of the proposed project would exceed 200 feet amsl and the project requires a zoning code amendment (PC-15

amendment and adoption of a new PCDP), a determination of consistency with the AELUP by ALUC is required. This determination must be made prior to approval of the proposed project.

As shown in Figure S5 of the City's General Plan Safety Element, JWA Clear Zone/Runway Protection Zones and Accident Potential Zones, the project site is within Safety Zone 6: Traffic Pattern Zone of JWA. Additionally, a very small portion of the project site along the eastern boundary fronting Jamboree Road falls within the future 60 dBA CNEL aircraft operation noise contours for JWA, with the remainder falling with the 55 dBA CNEL, as shown in Figure 5.10-4, *John Wayne Airport Future Noise Level Contours*, of this DEIR. Furthermore, the overall project site is in the FAR Part 77 Obstruction Imaginary Surfaces Zone and the FAR Part 77 Notification Area of JWA, as identified in the AELUP for JWA (ALUC 2008).

Potential Aircraft Noise Impacts

As shown in Figure 5.10-4, the project site falls within the 60 dBA CNEL aircraft operation noise contours for JWA. The AELUP identifies land uses that are "normally acceptable" and "conditionally acceptable" in each noise impact zone delineated by the respective CNEL noise contour derived from studies of aircraft flight operations into and out of JWA. AELUP defines the noise exposure to be "Moderate Noise Impact" in the 60 dBA CNEL noise contour, Noise Impact Zone 2. Per the AELUP for JWA, noise impact in this area is sufficient to require sound attenuation. Single-noise events in this area cause serious disturbances for many inhabitants. The AELUP notes that residents occupying residential units in Noise Impact Zone 2 may experience "inconvenience, annoyance, or discomfort arising from noise of aircraft at the airport." As outlined in the AELUP, the residential use interior sound attenuation requirement in this noise impact zone is required to be a CNEL value not exceeding an interior level of 45 dBA.

The very small portion of the eastern project boundary fronting Jamboree Road that falls within the 60 dBA CNEL would not include residential units. This area would be developed with a landscaped parkway and sidewalk. In addition, the City's General Plan Noise Element requires that residential development in the Airport Area be located outside of the 65 dBA CNEL noise contour (Policies LU 6.15.3 and N 3.2), and requires residential developers to notify prospective purchasers or tenants of aircraft overflight and noise (Policy N 3.2). The proposed project would be developed in accordance with these policies. Additionally, future project-related residential units that would fall within Noise Impact Zone 2 would be conditioned to achieve compliance with the 45 dBA CNEL interior noise standard outlined in the AELUP for JWA.

Therefore, residential land uses under the proposed project are not expected to result in an inconsistency with the noise standards of the AELUP for JWA.

Potential Hazards to People and Structures on the Ground

The project site is within Safety Zone 6: Traffic Pattern Zone of JWA. Risk factors associated with Safety Zone 6 generally include a low likelihood of accident occurrence. The main concern is primarily related to uses for which potential consequences are severe. Allowed uses in this safety zone include residential and most nonresidential uses, with the exception of outdoor stadiums and similar uses with very high intensities. Uses that should be avoided include children's schools, large day-care centers, hospitals, and nursing homes. The residential land uses of the proposed project would be consistent with those outlined in Safety Zone 6 and its applicable land use restrictions.

Therefore, residential land uses under the proposed project are not expected to result in an inconsistency with or impact to the standards and operations of Safety Zone 6.

Potential Hazards to Aircraft in Flight

The project site is in the FAR Part 77 Obstruction Imaginary Surfaces and the FAR Part 77 Notification Area of JWA, as identified in the AELUP for JWA (ALUC 2008). Building height limits in these restricted zones are determined in accordance with the standards outlined in FAR Part 77 (Objects Affecting Navigable Airspace) of the Federal Aviation Administration (FAA) regulations. ALUC has incorporated these standards and FAR Part 77 definitions into the AELUP as guidelines for determining building height limits. As outlined in the AELUP, projects that fall within the FAR Part 77 Notification Area are required to file Form 7460-1 (Notice of Proposed Construction or Alteration) with FAA, which directs FAA to conduct an aeronautical study. Upon completion of the aeronautical study, ALUC makes its determination of a project's consistency with the AELUP. It should be noted that the current aviation easement for JWA as adopted by the Orange County Board of Supervisors restricts the construction of buildings to a maximum height of 203.68 feet above mean sea level (amsl).

The FAA uses the Orange County Board of Supervisors established building height limit of 203.68 feet amsl to asses impacts to avigation activities of JWA. Additionally, because the proposed project falls within the FAR Part 77 Notification Area of JWA, the project applicant is required to file Form 7460-1 with FAA. Based on calculations prepared by the project applicant and submitted for review to FAA in conjunction with Form 7460-1, FAA conducted an aeronautical study for the proposed project consistent with FAA Part 77 regulations. As determined by the aeronautical study performed by FAA for 11 selected latitude/longitude building points onsite, three of the proposed building points were identified as obstacles under the obstruction standards of Section 77.199(a) of Title 14 CRF Part 77 by approximately one to three feet, as the tallest buildings that would be permitted by the proposed project (150-foot-tall residential towers) would reach a maximum height of 207 feet amsl. The additional one to three feet in building height would penetrate the JWA horizontal airspace surface and therefore be an obstruction to JWA operations.

In response to the FAA's aeronautical study and determination and to ensure that the proposed project's building heights would be within the limits established by the Orange County Board of Supervisors for JWA, the project's PCDP was amended to limit building heights and any appurtenances to no greater than the 203.68 feet amsl established for JWA. Therefore, the heights of the residential towers of the proposed project would not exceed the maximum permitted and adopted building height.

The proposed project is would be consistent with the building height limitations set forth under the current civilian airport standards in the AELUP and would not adversely affect JWA's aeronautical operations or navigational-aid siting criteria, including interference with navigational aids or published flight paths and procedures.

Conclusion

Based on this review and the analysis provided in Sections 5.7, *Hazards and Hazardous Materials*, and 5.10, *Noise*, of this DEIR, the proposed project would be consistent with the AELUP noise standards, standards and operations, and building height restrictions. However, since the proposed project requires an amendment to the Koll Center Newport PCDP and adoption of its own zoning (PDCP), a consistency determination by ALUC is required prior to the Newport Beach City Council taking action on the project. The proposed project has not yet been before ALUC for a determination of consistency. If ALUC determines that the project is not consistent with the AELUP, the Newport Beach City Council may override this finding by a two-thirds vote. If an override is made, a significant unavoidable adverse impact would result and a Statement of Overriding Considerations would be required to be made by the City Council at the time action on the project is taken.

SCAG 2012-2035 RTP/SCS Consistency

Table 5.9-2 provides an assessment of the proposed project's relationship to pertinent 2012-2035 SCAG RTP/SCS goals. The analysis in Table 5.9-2 concludes that the proposed project would be consistent with the applicable RTP/SCS goals. Therefore, implementation of the proposed project would not result in significant land use impacts related to relevant RTP/SCS goals.

Table 5.9-2
SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Goals Consistency Analysis

RTP Goals	Project Compliance
RTP/SCS G1: Align the plan investments and policies with improving regional economic development and competitiveness.	***Not Applicable:*** This is not a project-specific policy and is therefore not applicable.
RTP/SCS G2: Maximize mobility and accessibility for all people and goods in the region. ***RTP/SCS G3:*** Ensure travel safety and reliability for all people and goods in the region. ***RTP/SCS G4:*** Preserve and ensure a sustainable regional transportation system. ***RTP/SCS G5:*** Maximize the productivity of our transportation system.	***Consistent:*** Development of the proposed project would ensure that mobility and accessibility for people and goods would be maximized. As a part of proposed project, a comprehensive pedestrian linkage system consisting of sidewalks and paseos would be created that would provide an important and convenient linkage system not only throughout the project site, but also to adjacent and surrounding uses and to surrounding and nearby open space and recreation areas. The project's pedestrian circulation components would be designed and installed in a manner that would avoid conflicts with vehicles. Additionally, as a part of the proposed project, a 23-foot wide pedestrian and bicycle easement would be provided along Jamboree Road. Within this easement, a 12-foot wide sidewalk would be constructed as a part of the project to accommodate pedestrians and bicycles. The proposed project's location close to Jamboree Road, MacArthur Boulevard, and SR-73, and the existing OCTA bus routes provided along Jamboree Road and MacArthur Boulevard would maximize mobility and accessibility for residents of the proposed project. The project site is also served by JWA, which is 0.6 mile northwest of the site. Additionally, the project site is close to employment uses in the Airport Area and would provide housing near these jobs and promote the use of alternative transportation modes and a pedestrian-oriented village. A part of the proposed project, the necessary traffic control measures would also be installed to ensure that the City's roadways function as intended. Additionally, the proposed project's traffic study (see Appendix M) was prepared in accordance with the City's traffic study guidelines. Refer to Section 5.14, *Transportation and Traffic*, for a discussion of the traffic study's conclusions.

Table 5.9-2
SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy Goals Consistency Analysis

RTP Goals	Project Compliance
RTP/SCS G6: Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	***Consistent:*** The CEQA process ensures that plans at all levels of government consider all environmental impacts. Various sections of this DEIR appropriately address the potential environmental impacts related to development of the proposed project and outline mitigation measures and regulatory requirements to reduce any impacts, as applicable and feasible. For example, Sections 5.2, *Air Quality*, and 5.5, *Greenhouse Gas Emissions*, address air quality, energy, and global climate impacts that would occur as a result of implementation of the proposed project, and apply mitigation measures and regulatory requirements to reduce any impacts, as applicable and feasible. For example, the proposed project is required to comply with the provisions of the 2008 Building and Energy Efficiency Standards and the 2010 Green Building Standards Code (CALGreen). Additionally, as noted above under RTP Goals G2 through G5, the proposed project would encourage active transportation through the inclusion of a comprehensive pedestrian linkage system consisting of internal sidewalks and paseos. As a part of the proposed project, a 23-foot wide pedestrian and bicycle easement would be provided along Jamboree Road. Within this easement, a 12-foot wide sidewalk would be constructed as a part of the project to accommodate pedestrians and bicycles.
RTP/SCS G7: Actively encourage and create incentives for energy efficiency, where possible.	***Not Applicable:*** This is not a project-specific policy and is therefore not applicable.
RTP/SCS G8: Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	***Consistent:*** See response to RTP Goal G6.
RTP/SCS G9: Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	***Not Applicable:*** This is not a project-specific policy and is therefore not applicable.
RTP/SCS G10: Encourage land use and growth patterns that complement our transportation investments and improves the cost-effectiveness of expenditures.	***Consistent:*** The project's proposed land uses would complement and improve the existing and proposed circulation and transportation facilities in and around the project area. For example, the project's proposed land uses would be located and designed in a manner that would ensure usage of and access to the existing and future vehicular and nonvehicular transportation systems in the vicinity of the project area. Additionally, as a part of the development phase of the proposed project, all necessary traffic and circulation improvements would be installed and/or funded to ensure that the City's roadways function as intended. Furthermore, the proposed project would implement the City's General Plan goals and policies for this portion of the Airport Area as it would call for the development of a mixed-use master planned residential community. The proposed project would also introduce residential uses within an existing office business park and close to other commercial and ancillary uses, thereby reducing the number of vehicle miles traveled.

Source: 2012-2035 SCAG Regional Transportation Plan/Sustainable Communities Strategy

Phase 2

Project consistency with applicable plans has been addressed above under Phase 1. Where applicable, specific information has been provided and is appropriate, quantified to detail land use consistency for the interim Phase 1 condition vs. the buildout of the entire project.

5.9.4 Cumulative Impacts

Cumulative projects that would potentially combine with the proposed project to result in land use impacts are shown in Figures 4.3, *Approved Traffic Phasing Ordinance Projects*, and 4.4, *Cumulative Projects Location Map*. The cumulative projects shown in these figures are in different stages, with some approved and partially completed, and others approved or in the early planning stages and not yet completed.

Upon approval of the proposed project's development plans (e.g., PCDP, phasing plan, design guidelines), the project would be consistent with the City's General Plan and the ICDP, as provided in detail above. The project site would also be designed to enable the proposed project to be constructed in phases while still achieving a unified, comprehensive development plan. Furthermore, each project phase would be subject to all applicable design and development standards outlined in the proposed projects PCDP, phasing plan, and design guidelines.

As with the proposed project, cumulative projects would be subject to compliance with the local and regional plans and programs reviewed in this section, including the City's General Plan and Zoning Code. Implementation of these projects, therefore, would not combine with the proposed project to result in cumulatively considerable impacts.

5.9.5 Existing Regulations and Standard Conditions of Approval

Regulations

- City of Newport Beach Municipal Code

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to land use and planning that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process. Additionally, other applicable standard conditions are encompassed in the topical conditions that affect land use compatibility, including air quality, noise, and traffic.

5.9.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.9-1.

The following impact is considered **potentially significant** without mitigation.

- Impact 5.9-2**:** The possibility of an ALUC determination of inconsistency with the AELUP is considered potentially significant**.**

5.9.7 Mitigation Measures

There are no applicable mitigation measures.

5.9.8 Level of Significance After Mitigation

As described above, the proposed project has been reviewed by the City and it cannot make a determination of consistency at this time with the AELUP for JWA. Additionally, since the residential towers within the project site would exceed 200 feet amsl and the proposed project requires an amendment to the Koll Center Newport PCDP and adoption of its own zoning (PCDP), a consistency determination by ALUC is required prior to the Newport Beach City Council taking action on the project. The proposed project has not yet been before ALUC for a determination of consistency. If ALUC determines that the project is not consistent with the AELUP, the Newport Beach City Council may override this finding by a two-thirds vote. If an override is made, a significant unavoidable adverse impact would result and a Statement of Overriding Considerations would be required to be made by the City Council at the time action on the project is taken.

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5.10 NOISE

This section of the Draft Environmental Impact Report (DEIR) discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; reviews noise levels at existing receptor locations; and evaluates potential noise impacts associated with the Uptown Newport (proposed project). The noise calculations and modeling on which this analysis is based are included in Appendix J of this DEIR. The analysis in this section is based in part on the following technical report, also included in Appendix J of this DEIR:

- *Uptown Newport Project Noise and Vibration Impact Mitigation Memorandum,* Wilson Ihrig and Associates, June, 2012

5.10.1 Environmental Setting

Noise Descriptors

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness.”

The following are brief definitions of terminology used in this chapter:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}).** The mean of the noise level, energy-averaged over the measurement period.
- **Day-Night Level (L_{dn}).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to sound levels from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the levels from 7:00 PM to 10:00 PM, and 10 dB added to the sound levels from 10:00 PM to 7:00 AM.

Characteristics of Sound

When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate the human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The

normal range of human hearing extends from approximately 0 dBA (the threshold of detection) to 140 dBA (the threshold of pain).

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 5.10-1 presents the subjective effect of changes in sound pressure levels.

Table 5.10-1
Change in Apparent Loudness

± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 1988.

Sound is generated from a source and the decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as spreading loss or distance attenuation.

When sound is measured for distinct time intervals, the statistical distribution of the overall sound level during that period can be obtained. For example, L_{50} is the noise level that is exceeded 50 percent of the time: half the time the noise exceeds this level and half the time it is less than this level. This is also the level that is exceeded 30 minutes in an hour. Similarly, the L_{02}, L_{08}, and L_{25} values are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. The energy-equivalent sound level (L_{eq}) is the most common parameter associated with community noise measurements. The L_{eq} metric is a single-number noise descriptor of the energy-average sound level over a given period of time. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values are the minimum and maximum root-mean-square (RMS) noise levels obtained over the stated measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and nighttime hours, state law requires that, for planning purposes and to account for this increased receptiveness of noise, an artificial decibel increment is to be added to quiet-time noise levels to calculate the 24-hour CNEL noise metric.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA would result in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread, through generally worse in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level (SPL) number means. To help relate noise level values to common experience, Table 5.10-2 shows typical noise levels from noise sources.

Table 5.10-2
Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
Jet Flyover at 1,000 feet		
	100	
Gas Lawn Mower at three feet		
	90	
Diesel Truck at 50 feet, at 50 mph		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2009.

Regulatory Framework

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

California State Regulations

Noise standards have been incorporated as part of the California Building Code and California Noise Insulation Standards (Title 24 and 25, California Code of Regulations) and are the noise standards required for new construction in California.

Title 21, Subchapter 6 of the California Code of Regulations (Airport Noise Standards) establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Title 21 applies to airports that have been designated as “noise problem airports,” which includes John Wayne Airport. Noise-sensitive land uses in locations where the aircraft exterior noise level exceeds 65 dBA CNEL are generally incompatible, unless (1) an aviation easement for aircraft noise has been acquired by the airport proprietor or (2) the residence is a high-rise apartment or condominium that has an interior CNEL of 45 dBA or less in all habitable rooms despite aircraft noise and an air circulation or air conditioning system, as appropriate.

Assembly Bill (AB) 2776 requires any person who intends to sell or lease residential properties within an airport influence area to disclose that fact to the person buying the property.

City of Newport Beach Noise Standards

Noise Compatibility

The City of Newport Beach General Plan Noise Element discusses the effects of noise exposure on the population and sets goals designed to protect residents and businesses from excessive and persistent noise intrusions. The General Plan Noise Element contains noise thresholds for developments located adjacent to mobile or transportation noise sources and thresholds for stationary noise sources. The City applies the state's Community Noise and Land Use Compatibility standards, summarized in Table N2 of the Noise Element (presented here as Figure 5.10-1), to assess the compatibility of new development with ambient noise.

Table N2, Land Use Noise Compatibility Matrix, of the Noise Element is reproduced in Figure 5.10-1 and identifies clearly compatible, normally compatible, normally incompatible, and clearly incompatible noise levels for various land uses. A normally compatible designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use is made and needed noise insulation features are incorporated in the design. A clearly compatible designation indicates that standard construction can occur with no special noise reduction requirements.

In no case would it be desirable for any land use to have noise exceeding the highest "normally compatible" noise level shown in Figure 5.10-1. For the purpose of residential uses, the highest exterior noise level is 65 dBA CNEL. It should be noted that California requires that interior noise levels in multifamily residential uses not exceed 45 L_{dn}; this is commonly used as an interior standard for all residential uses, but is not required under the California Administrative Code, Title 24, Part 2.

In addition to the noise/land use compatibility guidelines in the General Plan Noise Element, the City of Newport Beach has adopted Community Noise Control policies and standards as part of its Municipal Code in order to limit unnecessary, excessive, and annoying noise in the City. These noise standards are discussed below and displayed in Table 5.10-3.

Table 5.10-3
City of Newport Beach Exterior Noise Standards (L_{eq})

Noise Zone	Time Interval	Maximum Daytime Noise Levels (dBA)	
		L_{eq}	L_{max}
Zone I – Single-, two-, or multiple-family residential	7 AM to 10 PM	55	75
	10 PM to 7 AM	50	70
Zone II – Commercial	7 AM to 10 PM	65	85
	10 PM to 7 AM	60	80
Zone III – Residential portions of mixed use properties	7 AM to 10 PM	60	80
	10 PM to 7 AM	50	70
Zone IV – Industrial or manufacturing	7 AM to 10 PM	70	90
	10 PM to 7 AM	70	90
Institutional	7 AM to 10 PM	55	75
	10 PM to 7 AM	50	70

Source: Section 10.26.025, Exterior Noise Standards, of the City of Newport Beach Municipal Code and Table N3, Noise Standards, of the City of Newport Beach General Plan Noise Element.
Notes:
These noise standards do not apply to heating ventilation and air conditioning (HVAC) systems or construction pursuant to Section 10.26.035 of the Municipal Code.
In the event the ambient noise level exceeds the noise standard, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.
The Noise Zone III standard shall apply to that portion of residential property falling within 100 feet of a commercial property, if the intruding noise originates from that commercial property.
If the measurement location is on boundary between two different noise zones, the lower noise level standard applicable to the noise zone shall apply.

The following discussion provides a summary of the City of Newport Beach Noise Element goals and policies as they apply to regulatory guidance and significance criteria for the proposed project:

Goal N1, Noise Compatibility, Minimized land use conflicts between various noise sources and other human activities.

- **Policy N 1.1, Noise Compatibility of New Development:** Require that all proposed projects are compatible with the noise environment through use of Table N2 (presented here as Figure 5.10-1), and enforce the interior and exterior noise standards shown in Table N3 (see Table 5.10-3).

- **Policy N 1.2, Noise Exposure Verification for New Development:** Applicants for proposed projects that require environmental review and are, located in areas projected to be exposed to a CNEL of 60 dBA and higher, as shown on Figure N4, Figure N5, and Figure N6 of the Noise Element may conduct a field survey, noise measurements or other modeling in a manner acceptable to the City to provide evidence that the depicted noise contours do not adequately account for local noise exposure circumstances due to such factors as, topography, variation in traffic speeds, and other applicable conditions. These findings shall be used to determine the level of exterior or interior, noise attenuation needed to attain an acceptable noise exposure level and the feasibility of such mitigation when other planning considerations are taken into account.

- **Policy N 1.4, New Developments in Urban Areas:** Require that applicants of residential portions of mixed-use projects and high density residential developments in urban areas (such as the Airport Area and Newport Center) demonstrate that the design of the structure will adequately isolate noise between adjacent uses and units (common floor/ceilings) in accordance with the California Building Code.

- **Policy N 1.5, Infill Projects:** Allow a higher exterior noise level standard for infill projects in existing residential areas adjacent to major arterials if it can be shown that there are no feasible mechanisms to meet the exterior noise levels. The interior standard of 45 dBA CNEL shall be enforced for any new residential project.

- **Policy N 1.6, Mixed Use Developments:** Encourage new mixed-use developments to site loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noise sources away from the residential portion of the development.

- **Policy N 1.7, Commercial/Entertainment Uses:** Limit hours and/or requires attenuation of commercial/entertainment operations adjacent to residential and other noise sensitive uses in order to minimize excessive noise to these receptors.

- **Policy N 1.8, Significant Noise Impacts:** Require the employment of noise mitigation measures for existing sensitive uses when a significant noise impact is identified for new development impacting existing sensitive uses, as presented in Table 5.10-4.

Table 5.10-4
City of Newport Beach Incremental Noise Impact Criteria for Noise-Sensitive Uses (dBA CNEL)

Existing Noise Exposure	*Allowable Combined Noise Exposure*	*Allowable Noise Exposure Increment*
55	58	3
60	62	2
65	66	1
70	71	1
75	75	0

Source: City of Newport Beach General Plan and General Plan EIR. Adopted November 2006.

Goal N2, Minimized motor vehicle traffic and boat noise impacts on sensitive noise receptors.

- **Policy N 2.1, New Development**: Require that proposed noise-sensitive uses in areas of 60 dBA and greater, as determined the analyses stipulated by Policy N1.1, demonstrate that they meet interior and exterior noise levels.

- **Policy N 2.2, Design of Sensitive Land Uses**: Require the use of walls, berms, and interior noise insulation, double paned windows, or other noise mitigation measures, as appropriate, in the design of new residential or other new noise sensitive land uses that are adjacent to major roads. Application of the Noise Standards in Table N3 (Table 5.10-3) shall govern this requirement.

- **Policy N 2.3, Limiting Truck Deliveries**: Limit the hours of truck deliveries to commercial uses abutting residential uses and other noise sensitive land uses to minimize excessive noise unless there is no feasible alternative. Any exemption shall require compliance with nighttime (10:00 P.M. to 7:00 A.M.) noise standards.

Goal N3, Protection of Newport Beach residents from the adverse noise impacts of commercial air carrier operations at John Wayne Airport as provided in the City Council Airport Policy.

Land Use Noise Compatibility Matrix (General Plan Table N2)

Land Use Noise Compatibility Matrix

Land Use Categories		Community Noise Equivalent Level (CNEL)						
Categories	Uses	<55	55–60	60–65	65–70	70–75	75–80	>80
Residential	Single Family, Two Family, Multiple Family	A	A	B	C	C	D	D
Residential	Mixed Use	A	A	A	C	C	C	D
Residential	Mobile Home	A	A	B	C	C	D	D
Commercial Regional, District	Hotel, Motel, Transient Lodging	A	A	B	B	C	C	D
Commercial Regional, Village District, Special	Commercial Retail, Bank, Restaurant, Movie Theatre	A	A	A	A	B	B	C
Commercial Industrial Institutional	Office Building, Research and Development, Professional Offices, City Office Building	A	A	A	B	B	C	D
Commercial Recreational **Institutional** Civic Center	Amphitheatre, Concert Hall Auditorium, Meeting Hall	B	B	C	C	D	D	D
Commercial Recreation	Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club	A	A	A	B	B	D	D
Commercial General, Special **Industrial, Institutional**	Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities	A	A	A	A	B	B	B
Institutional	Hospital, Church, Library, Schools' Classroom	A	A	B	C	C	D	D
Open Space	Parks	A	A	A	B	C	D	D
Open Space	Golf Course, Cemeteries, Nature Centers Wildlife Reserves, Wildlife Habitat	A	A	A	A	B	C	C
Agriculture	Agriculture	A	A	A	A	A	A	A

SOURCE: Newport Beach, 2006

Zone A: Clearly Compatible—Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B: Normally Compatible**—New construction or development should be undertaken only after detailed analysis of the noise reduction requirements and are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C: Normally Incompatible—New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

Zone D: Clearly Incompatible—New construction or development should generally not be undertaken.

Source: Newport Beach, 2006

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- **Policy N3.2, Residential Development:** Require that residential development in the Airport Area be located outside of the 65 dBA CNEL noise contour no larger than shown in the 1985 JWA Master Plan and require residential developers to notify prospective purchasers or tenants of aircraft overflight and noise.

Goal N4, Minimization of Nontransportation-Related Noise, Minimized nontransportation-related noise impacts on sensitive noise receptors.

- **Policy N 4.1, Stationary Noise Sources**: Enforce interior and exterior noise standards outlined in Table N3 (Table 4.10-3), and in the City's Municipal Code to ensure that sensitive noise receptors are not exposed to excessive noise levels from stationary noise sources, such as heating, ventilation, and air conditioning equipment.

- **Policy N 4.6, Maintenance or Construction Activities**: Require the enforcement of the Noise Ordinance noise limits and limits hours of maintenance or construction activity in or adjacent to residential areas, including noise that results from in-home hobby or work related activities.

Goal N5, Minimized excessive construction-related noise.

- **Policy N 5.1, Limiting Hours of Activity**: Enforce the limits on hours of construction activity.

Stationary (Nontransportation) Noise

The City applies the Noise Ordinance standards (Newport Beach Municipal Code Section 10.26.025, Exterior Noise Standards) to nontransportation, stationary noise sources. These standards are summarized in Table 5.10-3, and are included as the exterior noise standards in Table N3, Noise Standards, of the General Plan Noise Element. These standards are not applicable to mobile noise sources (such as heavy trucks) that are traveling on public roadways. Control of the mobile noise sources on public roads is preempted by federal and state laws. The City's Noise Ordinance is designed to protect people from objectionable nontransportation noise sources such as music, machinery, pumps, and air conditioners. These standards do not gauge the compatibility of developments in the noise environment, but provide restrictions on the amount and duration of noise generated at a property, as measured at the property line of the noise receptor.

Equipment sound ratings of new heating ventilation and air condition (HVAC) equipment installed in the City of Newport Beach are reviewed during plan check and tested in the field after installation. According to Section 10.26.045 of the City of Newport Beach Municipal Code, new permits for HVAC equipment in or adjacent to residential areas shall be issued only where the sound rating of the proposed equipment does not exceed 55 dBA, and it is installed with a timing device that will deactivate the equipment during the hours of 10 PM to 7 AM.

Sound-Amplifying Equipment

The City of Newport Beach requires that any sound-amplifying equipment used in the City apply for and obtain a permit from the Finance Director (City of Newport Beach Municipal Code Chapter 10.32, Sound-Amplifying Equipment). According to the City's Municipal Code, the volume of sound shall be controlled so that it will not be audible for a distance in excess of 100 feet from the sound-amplifying device, and so that the volume is not unreasonably loud, raucous, jarring, disturbing, or a nuisance to persons within the range of allowed audibility. Furthermore, use of sound-amplifying equipment is prohibited outdoors between the hours of 8 PM and 8 AM.

Construction Noise

The City realizes that the control of construction noise is difficult and therefore provides exemption for this type of noise. According to the City of Newport Beach Municipal Code Section 10.26.035, Exemptions, noise sources associated with construction, repair, remodeling, demolition, or grading of any real property are exempt from the noise level limits shown in Table 5.10-3, above. Such activities shall instead be subject to the provisions of the City of Newport Beach Municipal Code Section 10.28.040, Construction Activity – Noise Regulations. According to this chapter, construction is permitted on weekdays between the hours of 7:00 AM and 6:30 PM and Saturdays between the hours of 8:00 AM and 6:00 PM. Construction is not permitted on Sundays or any federal holiday. Exceptions to these construction hours can be made when the maintenance, repair, or improvement cannot feasibly be conducted during normal business hours, as outlined in Section 10.28.040 of the City's Municipal Code.

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities such as railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During project construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure. These types of vibration are best measured and described in terms of velocity and acceleration.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response.

The units for PPV and RMS velocity are normally inches per second (in/sec). Often, vibration is presented and discussed in dB units in order to compress the range of numbers required to describe the vibration. In this study, all PPV and RMS velocity levels are in in/sec and all vibration levels are in dB relative to one microinch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Even the more persistent Rayleigh waves decrease relatively quickly as they move away from the source of the vibration. Man-made vibration problems are, therefore, usually confined to short distances (500 to 600 feet or less) from the source (FTA, 2006).

Construction operations generally include a wide range of activities that can generate groundborne vibration. In general, blasting and demolition of structures generate the highest vibrations. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions. Trains generate substantial quantities of vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

Vibration Standards

The City of Newport Beach does not have specific limits or thresholds for vibration. The Federal Transit Administration (FTA) provides criteria for acceptable levels of groundborne vibration for various types of special buildings that are sensitive to vibration.

Vibration Annoyance

Table 5.10-5 shows the FTA's vibration criteria to evaluate vibration-related annoyance due to resonances of the structural components of a building. These criteria are based on extensive research that suggests humans are sensitive to vibration velocities in the range of 8 to 80 Hertz (Hz).

Table 5.10-5
Groundborne Vibration Criteria: Human Annoyance

Land Use Category	Max L_v (VdB)[1]	Description
Workshop	90	Distinctly felt vibration. Appropriate to workshops and nonsensitive areas
Office	84	Felt vibration. Appropriate to offices and nonsensitive areas.
Residential – Daytime	78	Barely felt vibration. Adequate for computer equipment.
Residential – Nighttime	72	Vibration not felt, but groundborne noise may be audible inside quiet rooms.

Source: FTA 2006.
[1] L_v is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

The FTA also sets a threshold of 65 VdB for vibration-sensitive research and manufacturing equipment. According to the FTA, this criterion is based on levels that area generally acceptable for the operation of microscopes and equipment that is used in the manufacturing of computer chips. This threshold is applicable to the TowerJazz semiconductor facility during the construction of the project's Phase 1.

Vibration-Related Architectural Damage

Structures amplify groundborne vibration, and wood-frame buildings such as typical residential structures are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards, shown in Table 5.10-6.

Table 5.10-6
Groundborne Vibration Criteria: Architectural Damage

Building Category	PPV (in/sec)	L_v (VdB)[1]
I. Reinforced concrete, steel, or timber (no plaster)	0.5	102
II. Engineered concrete and masonry (no plaster)	0.3	98
III. Non-engineered timber and masonry buildings	0.2	94
IV. Buildings extremely susceptible to vibration damage	0.12	90

Source: FTA 2006.
[1] L_v is the velocity level in decibels, as measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

Proposed Project and Nearby Sensitive Receptors

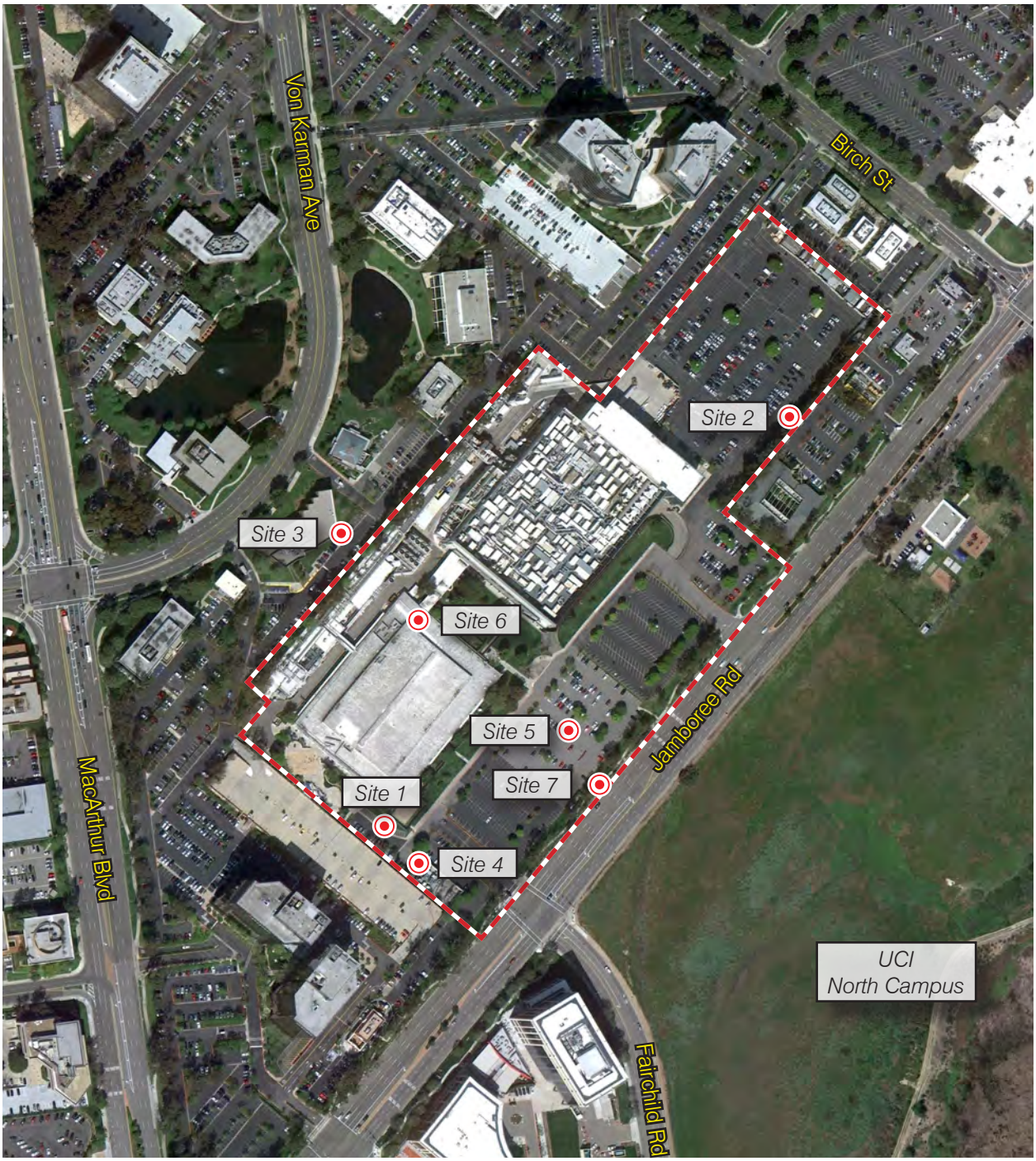
Certain land uses are particularly sensitive to noise and vibration. These uses include residences, schools, hospital facilities, religious facilities, and open space/recreation areas where quiet environments are necessary for the enjoyment, public health, and safety of the community. Commercial and industrial uses are not considered noise- and vibration-sensitive uses.

The proposed project would include multifamily residential units, neighborhood-serving retail uses, and neighborhood parks and ancillary amenities to serve residents and visitors. The project site is surrounded to the northeast, northwest, and southwest by commercial and office uses. To the southeast, across Jamboree Road, is undeveloped open space in the North Campus planning area of the University of California, Irvine (see Figure 3-3, *Aerial Photograph*). The nearest existing noise- and vibration-sensitive areas are the Child Care Development Center at UCI, approximately 260 feet to the east, and the Watermarke residential development, approximately 1,300 feet north of the site.

Existing Noise Environment

The dominant source of noise within the vicinity of the Uptown Newport site is traffic on Jamboree Road and general aviation aircraft overflights from the John Wayne Airport. The operation of equipment at the TowerJazz semiconductor facility also contributes to the ambient noise environment, especially at the western portions of the site. To characterize the existing noise environment, both short- and long-term noise measurements were taken within and near the project site. Figure 5.10-2 shows the noise monitoring locations.

Noise Monitoring Locations



Project Site

Noise Monitoring Locations

0 400
Scale (Feet)

Source: Google Earth Pro 2011

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Short-Term Noise Monitoring

Short-term noise monitoring was conducted on Tuesday, March 20, and Thursday, March 22, 2012, to measure the ambient noise environment at various locations within and near the project site. The monitoring periods were in duration of 10 to 20 minutes each at a total of five monitoring sites. Table 5.10-7 presents the minimum (L_{min}), average (L_{eq}), and maximum (L_{max}) noise levels that were monitored.

Table 5.10-7
Short-Term Noise Measurements

Monitoring Site	L_{min}	L_{eq}	L_{max}
Monitoring Site 1[1]	51.7	58.2	65.0
Monitoring Site 2[1]	55.6	59.1	64.7
Monitoring Site 3[1]	57.2	59.7	65.3
Monitoring Site 4[2]	53.5	59.0	75.1
Monitoring Site 5[2]	52.4	60.4	71.7

Notes: Noise monitoring conducted for 10–20 minutes at each site with a Larson Davis 820 sound level meter.
[1] Conducted on March 22, 2012.
[2] Conducted on March 20, 2012.

Monitoring Site 1. The sound level meter (SLM) was placed approximately 90 feet west/southwest from the gated entrance to the courtyard/recreation area on the southwest boundary of the project site. The primary noise source for this area was the hum from the nearby mechanical equipment near the gate and aviation overflights from helicopters, commercial airliners, and smaller single-engine airplanes. There were 11 overflights during the monitoring period. Secondary noise consisted of traffic from Jamboree Road and birds chirping in nearby trees.

Monitoring Site 2. The SLM was placed in the northeastern parking lot of the project site, approximately 280 feet from the centerline of Jamboree Road. The primary noise sources were the stationary source noise from the TowerJazz facility and aviation overflights (e.g., helicopters, smaller single-engine airplanes, and commercial airliners). There were eight overflights during the monitoring period. Secondary noise included traffic noise from Jamboree Road, which was only perceptible at certain times.

Monitoring Site 3. The SLM was placed in the parking lot of the "Manly and Stewart" office building at 4220 Von Karman Avenue. It was placed approximately east of the building and 65 feet from the nearest project site boundary. The primary noise source was the stationary source noise emanating from the TowerJazz facility. The other noise source included overflights from helicopters, single-engine airplanes, and commercial airliners. Traffic noise from Von Karman Avenue was not readily perceptible.

Monitoring Site 4. The SLM was placed approximately 10 feet from the existing SCE substation in the southern corner of the project, about 280 feet from the centerline of Jamboree Road. The dominant source of noise during the measurement was traffic on Jamboree Road, and a constant background "hum" from the operation of the transformers. The transformers from the substation generate the "hum" due to the alternating flux in the core that causes vibration.

Monitoring Site 5. The SLM was placed in the center portion of the main parking lot of the project site, approximately 215 feet from the centerline of Jamboree Road. The dominant source of noise was traffic on Jamboree Road and aircraft overflights.

Long-Term Noise Monitoring

Long-term noise monitoring was also conducted at two separate locations (TowerJazz rooftop and Jamboree Road) at the project site, as shown in Table 5.10-8. Monitoring at the TowerJazz rooftop site was conducted for a 48-hour period from Tuesday, March 20, to Thursday, March 22, 2012. Monitoring at the Jamboree Road site was conducted for a 24-hour period from Tuesday, March 22, to Wednesday, March 23, 2012. These locations were selected to capture the ambient noise levels at the site from the operation of the TowerJazz facility and from traffic noise on Jamboree Road. The results of the noise monitoring are presented in Table 5.10-8.

Table 5.10-8
Long-Term Noise Measurements

Noise Monitoring Location	*Noise Level (dBA CNEL)*
Monitoring Site 6 (TowerJazz Rooftop)[1]	73.8
Monitoring Site 7 (Jamboree Road)[2]	69.2

Notes:
[1] Conducted from March 20 to 22, 2012. Highest level on day 2 was reported; day 1=73.6 dBA CNEL.
[2] Conducted from March 22, 2012 to March 23, 2012.

TowerJazz Rooftop Monitoring Site. The SLM was placed on the roof top near the northern corner of the one-story Half Dome building, approximately 100 feet southwest of main cooling towers for TowerJazz facility. These cooling towers were the primary noise source for the area and were in use during the entire monitoring period. The other source of noise included overflights from aviation aircrafts. Traffic noise from Jamboree Road was not readily perceptible.

Jamboree Road Monitoring Site. The SLM was placed approximately 95 feet from the centerline of Jamboree Road to the north of a nearby transformer. The major noise source at this location was traffic on Jamboree Road. Background noise sources include the operation of the TowerJazz facility and aircraft overflights.

On-Road Vehicles

To assess the potential for mobile-source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the project area. Average daily traffic (ADT) volumes were based on the existing daily traffic volumes provided by Kimley-Horn and Associates (KHA 2012). Noise level contours were calculated for all roadway segments evaluated in the traffic study with noise-sensitive land uses exist along the roadway. The results of this modeling indicate that average noise levels along arterial segments currently range from approximately 56 dBA to 73 dBA CNEL, as calculated at a distance of 100 feet from the centerline of the road. Noise levels for existing conditions along analyzed roadways are presented in Table 5.10-9.

Table 5.10-9
Existing Conditions Traffic Noise Levels

Roadway	Segment	Daily Traffic Volumes	Noise Level at 100 Feet (dBA CNEL)	Distance to Noise Contour (feet) 70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
Main Street	Jamboree to Harvard	19,620	68.2	75	163	350
Michelson Drive	East of Jamboree	19,920	68.0	73	158	340
Michelson Drive	East of Harvard	16,370	67.1	64	138	298
Campus Drive	Jamboree to Carlson	14,970	67.8	71	154	331
Jamboree Road	Michelson to Dupont	45,560	72.9	156	336	724
Jamboree Road	Dupont to Campus	42,710	73.0	159	342	738
Jamboree Road	South of Bayview	34,990	72.2	139	300	646
Carlson Avenue	Michelson to Campus	7,450	63.7	38	82	176
Harvard Avenue	Michelson to University	17,310	67.4	67	144	310
Mesa Drive	West of Irvine Avenue	5,660	62.5	32	68	147
Irvine Avenue	South of Mesa Drive	25,100	69.0	85	184	397
Irvine Avenue	North of Mesa Drive	19,340	67.8	72	155	333
Bayview Place	South of Bristol	3,510	59.3	19	41	89
Bayview Way	West of Jamboree	1,870	56.5	13	27	59
University Drive	East of Jamboree	9,580	64.8	45	97	209
University Drive	California to Mesa	28,830	69.6	94	202	435
University Drive	Mesa to Campus	29,600	69.7	95	205	443
University Drive	East of Campus	29,300	69.9	99	212	457

Source: FHWA Highway Traffic Noise Prediction Model based on traffic volumes provided by Kimley-Horn and Associates, 2012. Calculations included in Appendix J

Aircraft Noise

John Wayne Airport (JWA) is approximately 3,000 feet northwest of the project site. Owned and operated by Orange County, JWA serves both general aviation and scheduled commercial passenger airline and cargo operations. JWA experienced a total of 349,936 aircraft operations (arrivals and departures) in 2005 and of those, 246,920 were general aviation operations, 87,130 were air carrier operations, 15,729, were air taxi (commuter) operations, and 157 were military operations. (Newport Beach Noise Element 2006).

The California Public Resources Code, Section 21096, requires that when preparing an Environmental Impact Report for any project located within an airport influence area as defined by an Airport Land Use Compatibility Plan (ALUC), the lead agency shall utilize the California Airport Land Use Planning Handbook as a technical resource with respect to airport noise and safety compatibility issues. The basis for compatibility zone delineation for airports is the CNEL contours created with the Federal Aviation Administration (FAA) Integrated Noise Model for private and public airports. Noise from aircrafts at the John Wayne Airport is produced from takeoffs, flyovers/overflights, approaches, and landings. Each of these events results in noise exposure to noise-sensitive receptors within close proximity to the airport. Based on the most recent, publicly available, annual noise contour map (2010) prepared by John Wayne Airport, the

project site is in an area exposed to noise levels due to airport operations between 55 and 60 dBA CNEL (see airport noise contours in Figure 5.10-3). Noise-sensitive land uses in locations where the aircraft exterior noise level does not exceed 65 dBA CNEL are compatible as long as interior habitable rooms remain below 45 dBA CNEL.

Stationary Source Noise

Noise from office, commercial, and light industrial uses in the vicinity of the project site are primarily from the operation of heating, ventilation, air conditioning (HVAC) systems, truck deliveries, and machinery utilized in production at the TowerJazz facility. In addition, the existing SCE substation generates noise from electrical equipment such as transformers and noise from corona effect. During the site visit, the dominant source of noise in the vicinity of the project site was vehicular traffic on Jamboree Road.

5.10.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would result in:

N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Based on local noise criteria established in the City of Newport Beach General Plan and Municipal Code, the following would be considered significant:

Exterior Noise impacting the Uptown Newport project would exceed 65 dBA CNEL to outdoor living areas, according to maximum level considered normally compatible for residential uses as shown in Table N2, Land Use Noise Compatibility Matrix, of the General Plan Noise Element (see Figure 5.10-1).

Based on Policy N 1.8 of the Newport Beach General Plan Noise Element, project-related traffic increases the CNEL at any noise-sensitive receptor by an audible amount of: (1) 3 dBA or more when the existing CNEL is 55 dBA or less, (2) 2 dBA or more when the CNEL is between 55 and 60 dBA, (3) 1 dBA or more when the CNEL is between 60 and 75, or (4) any amount when the CNEL exceeds 75 dBA in the vicinity of any noise-sensitive receptors (see Table 5.10-4).

Noise generated by buildout of the Uptown Newport project would result in stationary (non-transportation) noise that exceeds the standards of Table N3 of the Noise Element, and the City's Municipal Code (see Table 5.10-3) on noise-sensitive receptors.

N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Based on the vibration criteria as established by the FTA, the following would be considered significant:

John Wayne Airport Existing Noise Level Contours

Integrated Concept Development Plan

Project Site

Noise Contour Lines

0 1,500
Scale (Feet)

Source: Newport Beach 2006

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During Phase 1 and Phase 2 of construction, construction equipment would produce levels of vibration that exceed the FTA's criterion for architectural damage of 0.3 PPV (in/sec) for buildings in the vicinity of the project site and Phase 1 buildings.

During Phase 1 and Phase 2 of construction, construction equipment would produce levels of vibration that exceed the FTA's criterion for human annoyance for infrequent events (84 VdB) at offsite offices in the vicinity of the project site.

- During Phase 2 of construction, construction equipment would produce levels of vibration that exceed the FTA's criterion for human annoyance for infrequent events (78 VdB) at the project's residential buildings constructed in Phase 1.

The following would be considered a significant impact to the TowerJazz Semiconductor manufacturing facility (defined as substantial vibration to sensitive equipment per WIA, 2012):

- During Phase 1 of construction, construction equipment would produce levels of vibration that exceed 1,000 micro-inches per second at the TowerJazz semiconductor manufacturing facility (defined as a substantial vibration to sensitive equipment, per WIA 2012).

N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

Based on local noise criteria as established in the City of Newport Beach General Plan and Municipal Code the following would be considered significant:

Based on Policy N 1.8 of the Newport Beach General Plan, project-related traffic increases the CNEL at any noise-sensitive receptor by an audible amount of: (1) 3 dBA or more when the existing CNEL is 55 dBA or less, (2) 2 dBA or more when the CNEL is between 55 and 60 dBA, (3) 1 dBA or more when the CNEL is between 60 and 75, or (4) any amount when the CNEL exceeds 75 dBA in the vicinity of any noise-sensitive receptors (see Table 5.10-4)

Noise generated by buildout of the Uptown Newport project would result in stationary (nontransportation) noise that exceeds the standards of the City's Municipal Code (see Table 5.10-4) on noise-sensitive receptors.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

N-5 For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

Based on noise criteria as established by the Caltrans Aeronautics Program, the following would be considered significant:

If the project is within the Noise Impacted Area of John Wayne Airport and thus exposed to noise levels that exceed 65 dBA CNEL.

N-6 For a project within the vicinity of a private airstrip, expose people residing or working the project area to excessive noise levels.

The Initial Study, included as Appendix A, substantiates that impacts associated with Threshold N-6 would be less than significant. This impact will not be addressed in the following analysis.

5.10.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.10-1: THE INCREASE IN TRAFFIC FROM OPERATION OF THE PROPOSED PROJECT WOULD RESULT IN BARELY PERCEPTIBLE NOISE INCREASES LESS THAN 0.2 DBA CNEL TO AREA NOISE LEVELS. [THRESHOLDS N-1 AND N-3]

Impact Analysis: Long-term operation of the project would generate noise from project-related vehicular trips along roadways. According to the traffic analysis prepared for the project (Kimley-Horn and Associates, 2012), the proposed project would generate a net increase of 8,286 ADT when compared to existing conditions. The following analysis describes the anticipated noise levels from traffic generated by the Uptown Newport project. Traffic noise modeling was compiled for the following scenarios according to the traffic study prepared for this project:

- **Existing:** Existing conditions without the proposed project.
- **Existing with Project Buildout:** Existing volumes plus the new traffic generated by Phase 2, which corresponds to buildout of the proposed project.
- **Year 2018 Cumulative Conditions without Project:** Existing volumes plus ambient growth plus traffic from pending and approved—but not yet constructed—developments in the area, without the proposed project.
- **Year 2018 Cumulative Conditions with Project:** Volumes and transportation system from the 2018 Cumulative Conditions described above, plus the new traffic generated by Phase 1 of the proposed project.
- **Year 2021 Cumulative Conditions without Project:** Existing volumes plus ambient growth plus traffic from pending and approved—but not yet constructed—developments in the area, without the proposed project.
- **Year 2021 Cumulative Conditions with Project:** Volumes and transportation system from the 2018 Cumulative Conditions described above, plus the new traffic generated by Phase 2 (buildout) of the proposed project.

The traffic noise levels for this project were estimated using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic flows, vehicle speeds, car/truck mix, length of exposed roadway, and road width. The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of proposed project site are included in Appendix J. Tables 5.10-10 through 5.10-12 compare the noise levels at 100 feet from the centerline of each roadway segment without and with the project for existing, 2018, and 2021 conditions.

Existing Conditions Plus Project

Table 5.10-10 shows the traffic noise increase that would result from full buildout of the project (Phase 1 and Phase 2) in comparison to existing traffic conditions. This is the "existing plus project scenario" required by CEQA. Traffic noise increases due to the project's buildout range from 0 to 0.2 dBA. No roadway segments would exceed the thresholds for transportation noise impacts presented previously in Table 5.10-4; therefore, this increase would be less than significant.

Table 5.10-10
Project-Related Traffic Noise Increases, Existing Conditions

Roadway	Segment	CNEL at 100 feet (dBA)		Increase from Existing (dBA)
		Existing Conditions	With Project[1]	
Main Street	Jamboree to Harvard	68.2	68.2	0.0
Michelson Drive	East of Jamboree	68.0	68.0	0.0
Michelson Drive	East of Harvard	67.1	67.1	0.0
Campus Drive	Jamboree to Carlson	67.8	67.8	0.0
Jamboree Road	Michelson to Dupont	72.9	73.1	0.2
Jamboree Road	Dupont to Campus	73.0	73.2	0.2
Jamboree Road	South of Bayview	72.2	72.2	0.0
Carlson Avenue	Michelson to Campus	63.7	63.7	0.0
Harvard Avenue	Michelson to University	67.4	67.4	0.0
Mesa Drive	West of Irvine Avenue	62.5	62.5	0.0
Irvine Avenue	South of Mesa Drive	69.0	69.0	0.0
Irvine Avenue	North of Mesa Drive	67.8	67.9	0.1
Bayview Place	South of Bristol	59.3	59.3	0.0
Bayview Way	West of Jamboree	56.5	56.5	0.0
University	East of Jamboree	64.8	64.8	0.0
University	California to Mesa	69.6	69.6	0.0
University	Mesa to Campus	69.7	69.7	0.0
University	East of Campus	69.9	69.9	0.0

Source: FHWA Highway Traffic Noise Prediction Model based on traffic volumes provided by Kimley-Horn and Associates, 2012. Calculations included in Appendix J.
[1] Corresponds to project buildout (Phase 1 plus Phase 2).

Phase 1

The traffic-related noise increase due to development of Phase 1 of the project in comparison to noise levels without the project are shown in Table 5.10-11. As shown in this table, traffic noise increases due to Phase 1 development would range from 0 to 0.1 dBA.

Table 5.10-11
Project-Related Traffic Noise, Phase1

Roadway	Segment	CNEL at 100 feet (dBA)		Increase due to Project (dBA)
		Without Project 2018	With Phase 1 Project	
Main Street	Jamboree to Harvard	70.5	70.5	0.0
Michelson Drive	East of Jamboree	70.4	70.4	0.0
Michelson Drive	East of Harvard	68.3	68.3	0.0
Campus Drive	Jamboree to Carlson	69.5	69.6	0.1
Jamboree Road	Michelson to Dupont	73.8	73.8	0.0
Jamboree Road	Dupont to Campus	73.8	73.9	0.1
Jamboree Road	South of Bayview	73.1	73.2	0.1
Carlson Avenue	Michelson to Campus	66.3	66.3	0.0
Harvard Avenue	Michelson to University	67.8	67.8	0.0
Mesa Drive	West of Irvine Avenue	62.6	62.6	0.0
Irvine Avenue	South of Mesa Drive	69.7	69.7	0.0
Irvine Avenue	North of Mesa Drive	68.6	68.7	0.1
Bayview Place	South of Bristol	59.5	59.5	0.0
Bayview Way	West of Jamboree	57.1	57.1	0.0
University	East of Jamboree	65.5	65.5	0.0
University	California to Mesa	70.4	70.4	0.0
University	Mesa to Campus	70.5	70.5	0.0
University	East of Campus	70.3	70.4	0.1

Source: FHWA Highway Traffic Noise Prediction Model based on traffic volumes provided by Kimley-Horn and Associates, 2012. Calculations included in Appendix J.

Noise increases of up to 1dBA are not perceptible to the average human ear. No roadway segments would exceed the thresholds for transportation noise impacts presented previously in Table 5.10-4; therefore, implementation of Phase 1 the proposed project would not cause a substantial permanent increase in ambient noise levels in the vicinity of noise-sensitive receptors. Thus, project-related traffic noise impacts would be less than significant.

Phase 2

Table 5.10-12 shows the project's traffic-generated noise impacts over completion of Phase 2 (project buildout) for 2021 conditions. As shown in this table, traffic noise increases due to Phase 2 development range from –0.1 to 0.2 dBA.

Table 5.10-12
Project-Related Traffic Noise, Phase 2

Roadway	Segment	CNEL at 50 feet (dBA) Without Project (2021) Project	CNEL at 50 feet (dBA) With Phase 2 Project	Increase Due to Project (dBA)
Main Street	Jamboree to Harvard	70.7	70.7	0.0
Michelson Drive	East of Jamboree	70.6	70.5	-0.1
Michelson Drive	East of Harvard	68.5	68.5	0.0
Campus Drive	Jamboree to Carlson	69.7	69.7	0.0
Jamboree Road	Michelson to Dupont	73.9	74.1	0.2
Jamboree Road	Dupont to Campus	74.0	74.2	0.2
Jamboree Road	South of Bayview	73.2	73.3	0.1
Carlson Avenue	Michelson to Campus	66.5	66.5	0.0
Harvard Avenue	Michelson to University	68.0	68.0	0.0
Mesa Drive	West of Irvine Avenue	62.7	62.7	0.0
Irvine Avenue	South of Mesa Drive	69.8	69.8	0.0
Irvine Avenue	North of Mesa Drive	68.7	68.8	0.1
Bayview Place	South of Bristol	59.5	59.5	0.0
Bayview Way	West of Jamboree	57.2	57.2	0.0
University	East of Jamboree	65.6	65.6	0.0
University	California to Mesa	70.6	70.6	0.0
University	Mesa to Campus	70.7	70.7	0.0
University	East of Campus	70.5	70.5	0.0

Source: FHWA Highway Traffic Noise Prediction Model based on traffic volumes provided by Kimley-Horn and Associates, 2012. Calculations included in Appendix J.

As shown in Table 5.10-12, Phase 2 of the project would increase the noise levels along roadways by less than 0.2 dBA. Noise increases of up to 1dBA are not perceptible to the average human ear. No roadway segments would exceed the thresholds for transportation noise impacts presented previously in Table 5.10-4; therefore, implementation of Phase 2 the proposed project would not cause a substantial permanent increase in ambient noise levels in the vicinity of noise-sensitive receptors. Thus, project-related traffic noise impacts would be less than significant.

IMPACT 5.10-2: ***THE PROPOSED PROJECT WOULD INTRODUCE NEW STATIONARY NOISE SOURCES THAT WOULD RESULT IN SMALL NOISE LEVEL INCREASES IN THE VICINITY OF NOISE-SENSITIVE LAND USES. [THRESHOLDS N-1 AND N-3]***

Impact Analysis:

Phase 1

The proposed project would include multifamily residential units, neighborhood-serving retail uses such as specialty retail and restaurant, and recreational areas to serve residents and visitors. Operation of the project would include stationary sources such as outdoor activities at the proposed recreational areas, truck deliveries, and the operation of HVAC units.

Since the land uses adjacent to the project site are commercial and office, the project is required to abide by the City of Newport Beach maximum noise limits for Zone II, which requires noise levels from stationary equipment not to exceed a daytime maximum of 65 dBA L_{eq} for a period of 15 minutes during an hour (or 85 dBA L_{max}) and a nighttime maximum of 60 dBA L_{eq} for a period of 15 minutes in an hour (or 80 dBA L_{max}). In addition, Phase 1 would also have to comply with the City of Newport Beach maximum noise limits for Zone IV for the TowerJazz Semiconductor industrial facility, which requires noise levels from stationary equipment not to exceed a maximum of 70 dBA L_{eq} for a period of 15 minutes during an hour (or 90 dBA L_{max}) at any time of the day.

For the future proposed mixed-uses, the project is required to abide by the City of Newport Beach maximum noise limits for Zone III (residential portions of mixed-use properties), which requires that noise levels from stationary equipment to not exceed a daytime maximum of 60 dBA L_{eq} for a period of 15 minutes during an hour (or 80 dBA L_{max}) and a nighttime maximum of 50 dBA L_{eq} for a period of 15 minutes in an hour (or 70 dBA L_{max}).

Truck Deliveries

The retail uses would be neighborhood commercial such as restaurants and specialty retail, mostly to serve the future project's residents. The total commercial component would be 11,500 square feet and located in the southeastern corner of the site adjacent to Jamboree Road. The primary noise associated with truck deliveries is the arrival and departure of trucks. Normal deliveries are mostly by two-axle medium trucks and typically occur during daytime hours. Permitted retail uses would include, but not be limited to, small retail uses such as bakeries, clothing/boutique shops, jewelry, and convenience stores. Business, medical, dental and professional offices would be permitted uses as well as personal service uses such as dry cleaners, hair salons, optometry, and postal services. No loading docks are proposed due to the small size of commercial retailers that would be developed under Phase 1. It is anticipated that truck deliveries would be sporadic and limited to small two-axle trucks. While there would be temporary noise increases during truck maneuvering and engine idling, these impacts would be sporadic and short term to nearby uses, specifically to the residential towers. Traffic noise on Jamboree Road would generally overshadow noise from truck deliveries during the daytime, and these activities would not be annoying or cause disruptions at any existing nearby office and commercial uses in the vicinity of the project site. Truck maneuvers and engine idling from truck deliveries during the nighttime could cause annoyance and sleep disturbance to the project residents. This would be a significant impact.

Restaurant Outdoor Patios/Seating

There would be limited outdoor patios/seating available at the restaurants. Noise associated with these uses would include patrons' voices. Due to distance and the project site layout, there would be no impacts to offsite office, retail uses, and the existing TowerJazz facility. Any future proposed establishment within the project site that would include outdoor patio/seating areas would be subject to the standards outlined in the proposed project's Planned Community Development Plan and Section 20.48.090, Eating and Drinking Establishments, of the City's Municipal Code. With adherence to these standards, noise from restaurant outdoor patios/seating areas would be less than significant.

Recreational Areas and Special Events

Private open space and recreational amenities developed as part of the proposed project may include private courtyards, roof deck recreation areas, seating areas, barbecue facilities, swimming pools, exercise facilities, tennis courts, basketball courts, clubhouse rooms, and other amenities. The recreational areas would be ideally located in the center of the site, surrounded by the project's residential areas. The

recreational areas would be privately owned and maintained and available to all project residents, but would also be open to the public. Specific locations and improvement plans for open space and recreational amenities will be reviewed and approved as a part of the City's Site Development Review process. Typical noise from the use of recreational areas includes people's voices, children's activities, portable music equipment, and the use of lawnmowers and blowers for landscaping.

The project may also host a variety of special events and temporary uses throughout the year, including farmer's markets, parades, trade shows, car shows, pageants, community concerts, outdoor displays, and recreation/entertainment events. These events and temporary uses may be subject to Special Event permits and all applicable conditions of approval as set forth by the City. In addition, all activities would be required to comply with the Noise Ordinance standards listed in Table 5.10-3, and the use of the recreational areas would be restricted to the daytime hours from 7 AM to 10 PM. Compliance with the regulations included in the City's Municipal Code would ensure that noise from the use of the project's recreational areas and special events would generally not be offensive and annoying at the proposed residential areas and offsite office and retail areas. These impacts would be less than significant.

HVAC Units

Noise from the operation of HVAC units is regulated by Section 10.26.045 of the Municipal Code. The nearest offsite residential areas are located approximately 1,200 feet away, and the UCI day care center is approximately 260 feet away across Jamboree Road. Due to distance, and because noise from Jamboree Road would overshadow noise from HVAC units from the project site, noise from the operation of HVAC units to nearby noise-sensitive receptors would be negligible.

According to Section 10.26.045, Heating, Venting and Air Conditioning—Special Provisions, of the City of Newport Beach Municipal Code, noise from the operation of HVAC at the nearest residential areas proposed by the project would be reviewed during plan check and tested in the field after installation. New permits for HVAC equipment in residential areas shall be issued only where the sound rating of the proposed equipment does not exceed 55 dBA. Compliance with the City of Newport Beach Municipal Code would ensure that noise from HVAC units would be less than significant at the proposed residential areas.

Parking Lot Activities

The majority of parking areas would be internal to the buildings, mostly subterranean. Typical noise generated within a parking lot include noise from ventilation equipment (cooling towers), car idling, alarms, beeps, doors slamming, tire squeal, and conversation. Maximum noise levels from these activities range from 55 to 70 dBA L_{max} at 50 feet from the source. Because of shielding from the buildings, and because most parking lots would be below ground, noise from parking would be limited. Occasional noise from incidental activation of car alarms could be disturbing at the nearest residences. Noise from tire squeal and the operation of ventilation equipment could be frequent and would have the potential to cause potential noise impacts to the project's residential areas.

Phase 2

The analysis for new stationary sources that would be introduced to the project site in Phase 1 also applies to Phase 2. In Phase 2, the existing TowerJazz facility would be demolished, and this relatively major stationary source of noise (24 hours/day) would be eliminated. This would result in a net reduction in stationary-source noise to the existing office uses adjacent in comparison existing conditions.

IMPACT 5.10-3: PROPOSED ONSITE NOISE-SENSITIVE USES WOULD BE EXPOSED TO EXTERIOR NOISE LEVELS FROM VEHICULAR TRAFFIC AND FROM OPERATION OF THE TOWERJAZZ FACILITY EXCEEDING THE 65 DBA CNEL STANDARD FOR RESIDENTIAL AND PARK USES. [THRESHOLDS N-1 AND N-3]

Impact Analysis: The proposed project's residential and outdoor recreational areas would be noise-sensitive uses and therefore are subject to applicable noise standards. Noise would be a significant impact if the project constructs a noise-sensitive land use in an area that is incompatible due to excessive noise. The City of Newport Beach's noise standard for exterior living areas, including patios, balconies, and parks, is 65 dBA CNEL.

The ambient noise levels in the vicinity of the project site are dominated by traffic on Jamboree Road, aircraft noise from John Wayne Airport, and noise from the operation of the TowerJazz facility. The future ambient noise level is a combination of noise from traffic, aircraft overflights, and stationary noise from the existing TowerJazz facility and the SCE substation. The proposed project would construct residential buildings approximately 100 feet from the centerline of Jamboree Road, approximately 250 feet from Birch Street, approximately 300 feet from Von Karman Avenue, and approximately 400 feet from MacArthur Boulevard. In addition, background traffic noise from aircraft overflights and stationary source noise would affect the project site. To evaluate the future overall ambient noise levels at the interim year 2018 conditions (completion of Phase 1), and the 2021 long-range noise levels (completion of Phase 2), traffic noise was combined with aircraft noise from John Wayne Airport, and combined with noise from the operation of the TowerJazz facility (for Phase 1 only).

Phase 1

The operation of the TowerJazz facility is expected to continue as an interim use after development of Phase 1. This analysis addresses the potential impacts of this interim Phase 1 condition with 680 residential units to be constructed adjacent to the manufacturing facility. Similarly, the existing SCE substation at the northwest corner of Fairchild Road and Jamboree Road would remain after Phase 1 development and be eliminated during Phase 2. Table 5.10-13 shows the overall ambient noise level at locations shown in Figure 5.10-4, *Combined Ambient Noise Levels, Phase 1.* These represent the noise levels that would occur at completion of Phase 1 (2018) at the façade of buildings closest to the major arterials surrounding the project site. The highest noise levels would occur along the sides of buildings adjacent to Jamboree Road (from traffic noise) and the TowerJazz facility (from industrial noise). Residential buildings constructed along the southeastern project site boundary facing Jamboree Road would be exposed to the highest transportation-related noise levels.

Table 5.10-13
Phase 1 (2018) Combined Noise Levels (dBA CNEL)

Project Boundary	Roadway Segment	Distance to Road	Traffic Noise	Aircraft Noise	Stationary Noise	Total Noise
1. Northeast	Birch Street	800	50.5	60.0	0	70.6
	Jamboree Road	100	70.2			
2. Southeast	Jamboree Road	100	73.2	60.0	0	73.4
3. Southwest	MacArthur Boulevard	400	61.6	60.0	60.9[1]	65.7
4. Northwest	Von Karman Avenue	400	56.0	60.0	73.8[2]	74.0

Note: Noise levels calculated at project site boundaries, assumed to be at buildings' minimum setback location.
[1] From the SCE Substation, according to noise measurement 1 converted to CNEL.
[2] From the operation of the TowerJazz Semiconductor facility, according to noise measurement 6.

The exterior noise levels would range from 65.7 to 74.0 dBA CNEL, the City's Noise Element establishes exterior noise standard of 65 dBA CNEL for residential outdoor living areas. The proposed project's outdoor living areas could include common exterior use areas such as the proposed park and amenities such as pool areas, barbecue, and playgrounds. In addition, the project is anticipated to include private patios and balconies.

The conceptual plans, shown in Figure 3.6, *Site Plan and Phasing Plan*, show that the proposed park/common exterior use areas would be surrounded by the project buildings, which would buffer these uses from ambient noise. Based on the conceptual plans, the buildings surrounding the outdoor areas (even if only three stories high) would provide a noise reduction in excess of 15 dBA for the outdoor use areas, reducing the traffic and stationary-source noise levels at these areas to below 60 dBA CNEL. Aircraft noise at the common exterior use areas would be within 55 to 60 dBA CNEL due to aircraft overflights from John Wayne Airport. In summary, the development of the proposed park/common exterior areas would be below 65 dBA CNEL and would comply with the applicable noise standards. No mitigation would be required for the proposed park/common areas.

Patios and balconies constructed for Phase 1 buildings that are oriented toward the major arterials (Jamboree Road, Birch Street, MacArthur Boulevard, and Von Karman Avenue) or face the TowerJazz facility would potentially be exposed to exterior noise levels exceeding the 65 dBA CNEL criteria for exterior noise levels at outdoor living areas (see Table 5.10-13). Without mitigation there is the potential for a significant impact for the exterior outdoor living areas constructed during Phase 1.

Phase 2

The TowerJazz facility and the SCE substation would be eliminated during Phase 2. Table 5.10-14 shows the overall ambient noise levels in Figure 5.10-5, *Combined Ambient Noise Levels, Phase 2,* at year 2021, which corresponds to the completion of project Phase 2.

Table 5.10-14
Phase 2 (2021) Combined Noise Level (dBA CNEL)

Project Boundary	Roadway Segment	Distance to Road	Traffic Noise	Aircraft Noise	Stationary Noise	Total Noise
1. Northeast	Birch Street	250	58.1	60.0	0	67.2
	Jamboree Road	300	65.6			
2. Southeast	Jamboree Road	100	73.2	60.0	0	73.4
3. Southwest	MacArthur Boulevard	400	61.6	60.0	0	63.9
4. Northwest	Von Karman Avenue	300	57.8	60.0	0	62.0

Note: Noise levels calculated at project site boundaries assumed to be at buildings' minimum setback location.

As shown in Table 5.10-14 above, buildings facing Jamboree Road would experience the highest noise levels. The exterior noise levels would range from 62.0 to 73.4 dBA CNEL and would exceed the 65 dBA CNEL exterior noise criteria for residential uses.

Similar to Phase 1, the Phase 2 conceptual plan park/common exterior use areas would be surrounded by the project buildings, which would buffer these uses from ambient noise. The development of the proposed park/common exterior areas, and Phase 2 patios and balconies that orient toward Jamboree Road, Birch Street, MacArthur Boulevard, and Von Karman Avenue would have the potential to be exposed to exterior noise levels that exceed the 65 dBA CNEL criteria for exterior noise levels for outdoor living areas (see Table 5.10-14). Without mitigation there is the potential for a significant impact for the exterior outdoor living areas constructed during Phase 2.

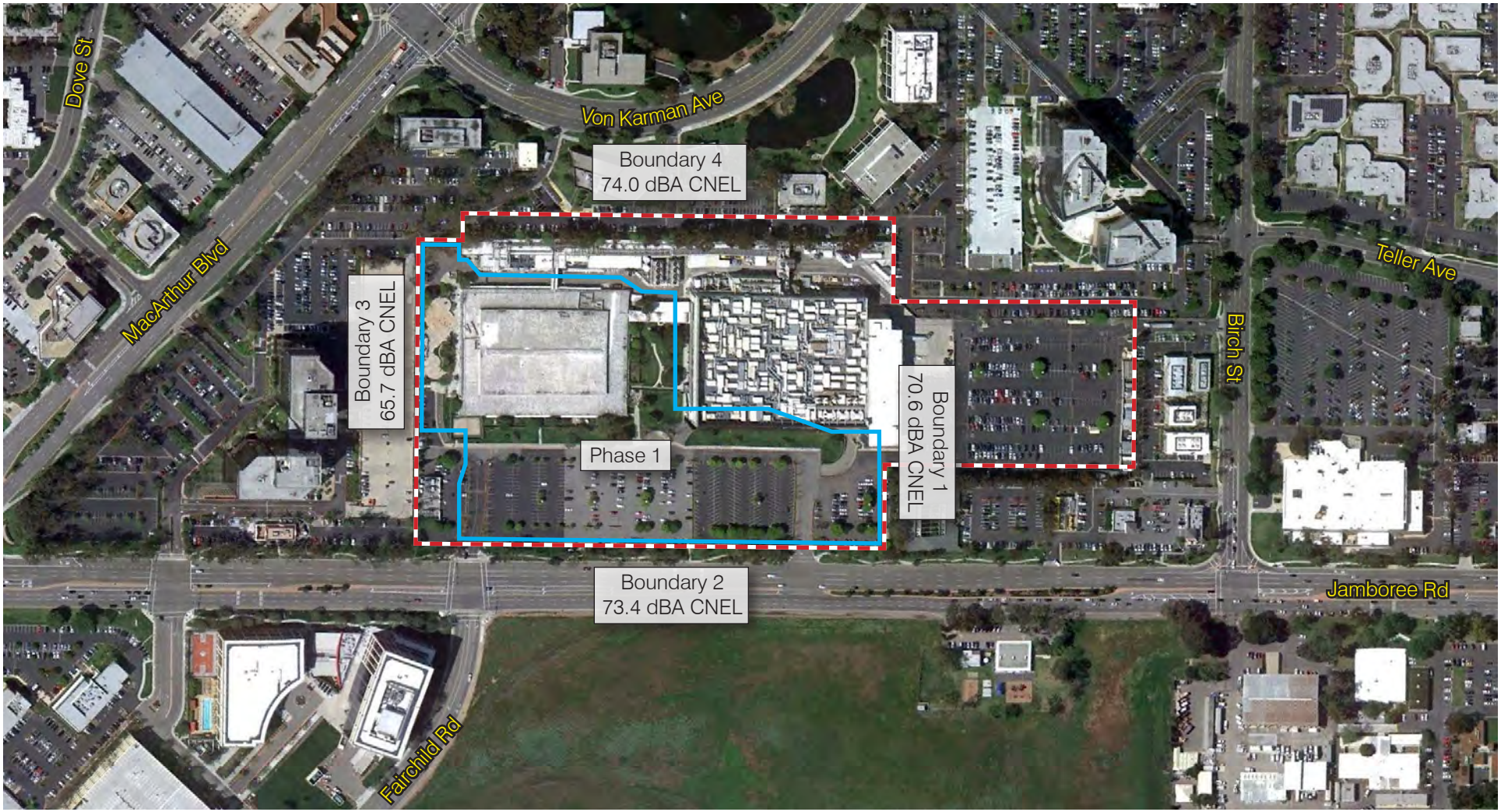
IMPACT 5.10-4: PROPOSED NOISE-SENSITIVE USES WOULD BE EXPOSED TO INTERIOR NOISE LEVELS EXCEEDING THE 45 DBA CNEL STANDARD. [THRESHOLDS N-1 AND N-3]

Impact Analysis:

Phase 1

The City of Newport Beach requires that new construction achieve an interior noise environment of 45 dBA CNEL. As discussed previously, the ambient noise levels in the vicinity of the project site are dominated by traffic on Jamboree Road, aircraft noise from John Wayne Airport, and noise from the operation of the TowerJazz facility. Interior noise is the difference between the noise level at the façade of the building and the noise reduction provided by the building. As shown on Table 5.10-13, the exterior noise levels at building facades during Phase 1 would range from 65.7 to 74.0 dBA CNEL; consequently, an exterior-to-interior noise reduction ranging from 20.7 to 29.0 dBA would be required to meet the 45 dBA CNEL interior noise standard. Standard windows and doors in a warm-weather climate typically provide an exterior-to-interior noise reduction of 12 dBA with windows open and a minimum of 25 dBA reduction with windows closed. Without mitigation, there is the potential for a significant impact for the residential interior areas constructed during Phase 1.

Combined Ambient Noise Levels, Phase 1



Project Site

Phasing Boundary

0 400
Scale (Feet)

Source: Shopoff Management, Inc. 2011

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Combined Ambient Noise Levels, Phase 2

Project Site

0 400
Scale (Feet)

Source: Shopoff Management, Inc. 2011

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Phase 2

As shown on Table 5.10-14, the exterior noise levels at building facades during Phase 2 would range from 62.0 to 73.4 dBA CNEL; consequently, an exterior-to-interior noise reduction ranging from 17.0 to 28.4 dBA would be required to meet the interior noise standard. Standard windows and doors in a warm-weather climate typically provide an exterior-to-interior noise reduction of 12 dBA with windows open and a minimum of 25 dBA reduction with windows closed. Without mitigation there is the potential for a significant impact for the residential areas constructed during Phase 2.

IMPACT 5.10-5: ***CONSTRUCTION OF THE UPTOWN NEWPORT PROJECT WOULD GENERATE VIBRATION LEVELS THAT EXCEED THE FTA CRITERION FOR HUMAN ANNOYANCE AT NEARBY RESIDENTIAL STRUCTURES AND AFFECT THE OPERATION OF VIBRATION-SENSITIVE EQUIPMENT AT THE TOWERJAZZ FACILITY. [THRESHOLD N-2]***

Impact Analysis: Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and the construction equipment. Construction equipment used during project development would produce vibration from vehicle travel as well as grading and building activities. Construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The office and retail uses adjacent to the site, as well as the TowerJazz facility, could be affected by vibration generated by construction equipment at the project site. Vibration is typically sensed at nearby structures when objects inside generate noise, such as rattling windows or picture frames. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Ground vibrations from construction activities rarely reach levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to the construction site.

The majority of heavy construction equipment would be used during the demolition and grading operations. The highest levels of vibration would be experienced when a heavy piece of construction equipment is operating or passes close to vibration-sensitive structures. Table 5.10-15 shows the potential vibration levels that can be generated by heavy construction equipment at receptors 25 feet away.

Table 5.10-15
Construction Equipment Vibration Levels

Equipment	*Approximate RMS[1] Velocity at 25 Feet (VdB)*	*Approximate PPV Velocity at 25 Feet (in/sec)*
Vibratory Roller	94	0.210
Large Bulldozer	87	0.089
Jackhammer	79	0.035
Small Bulldozer	58	0.003
Loaded Trucks	86	0.076
FTA Criteria – Sensitive Equipment	65	—
FTA Criteria – Human Annoyance (Daytime)	78	—
FTA Criteria – Architectural Damage	—	0.300

Source: FTA 2006.
[1] RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch/second and a crest factor of 4.

Phase 1

Vibration-Induced Annoyance

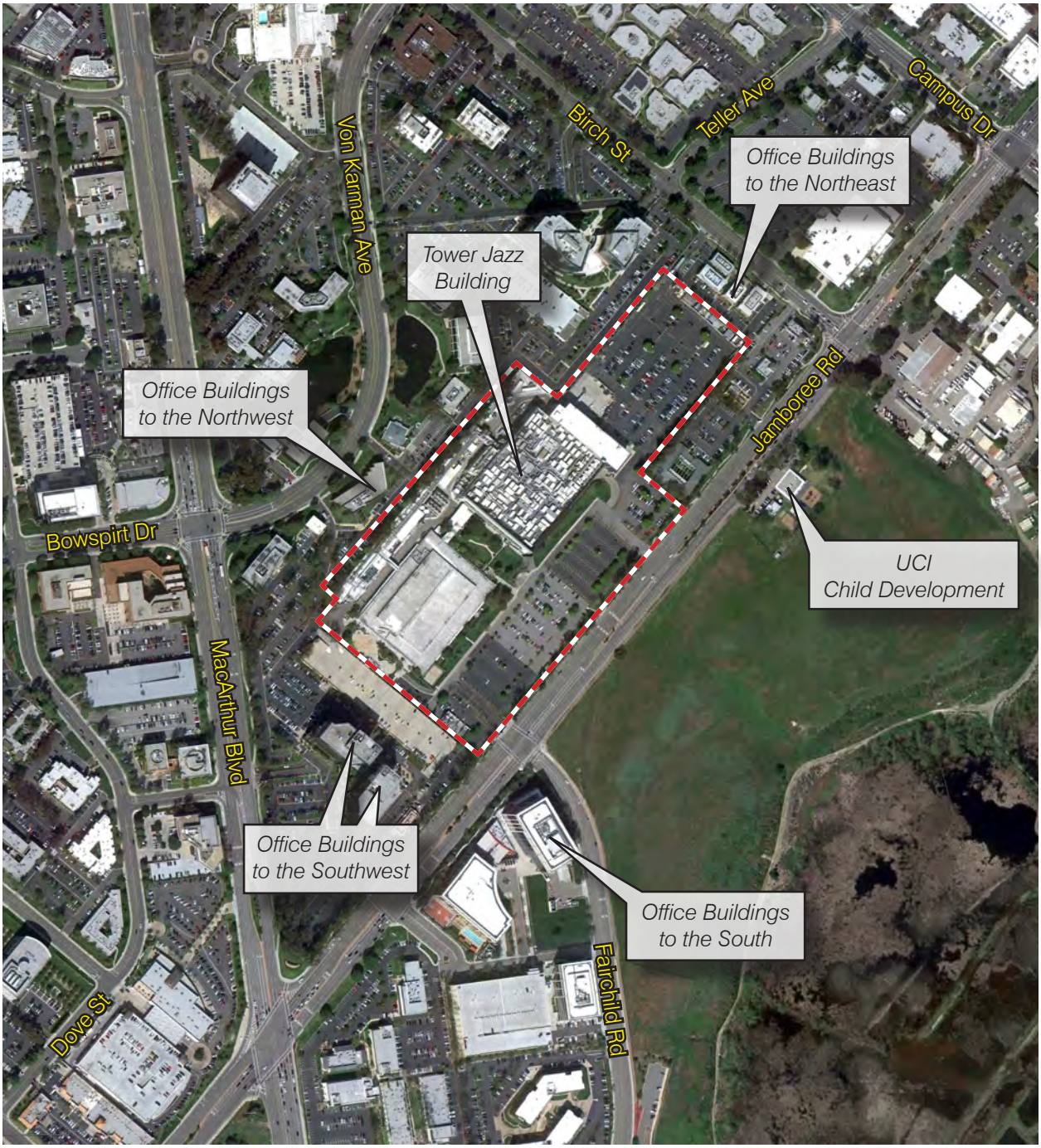
Table 5.10-15 lists vibration levels for different types of construction equipment at 25 feet away. During Phase 1 construction, the nearest sensitive receptors that could be affected by vibration are from 25 to 100 feet from the boundary of the project site. Table 5.10-16 shows the maximum levels of vibration produced by Phase 1 construction equipment at the nearest receptors. The nearest offsite receptors are depicted in Figure 5.10-6, *Nearest Offsite Noise- and Vibration-Sensitive Receptors*. Table 5.10-16 also compares the anticipated maximum vibration level with the applicable threshold based on the FTA's significance threshold for vibration annoyance of 78 VdB for residential uses and 84 VdB for office uses, and a threshold of 60VdB for sensitive research and manufacturing equipment, provided by Wilson Ihrig and Associates. The values shown correspond to the maximum vibration levels when construction equipment is operating at the boundary of Phase 1, nearest to the affected receptor.

Table 5.10-16
Vibration Levels for Construction Equipment during Phase 1 (VdB)

Equipment	*Office Buildings to the Southwest*	*Office Buildings to the Northwest*	*Office Buildings to the South*	*UCI Child Development*	*Office Buildings to the Northeast*	*TowerJazz Facility*
Vibratory Roller	77	76	76	73	64	**88**
Large bulldozer	70	69	69	66	57	**81**
Small bulldozer	41	40	40	37	28	52
Jackhammer	62	61	61	58	49	**73**
Loaded trucks	69	68	68	65	56	**80**
Threshold	84	84	84	84	84	60
Exceed Thresholds?	**No**	**No**	**No**	**No**	No	**Yes**

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006. The Threshold for TowerJazz was derived from the Technical Memorandum provided by Wilson Ihrig and Associates, 2012.
Notes: Receptor locations are depicted in Figure 5.10-6.
RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.
Bold indicates values exceeding applicable thresholds.

Nearest Offsite Noise- and Vibration-Sensitive Receptors



Site Boundary

0 600
Scale (Feet)

Source: Google Earth 2011

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Vibration during construction would have the potential to affect TowerJazz facility operations. Because some TowerJazz manufacturing equipment has low tolerance to vibration, the operation of construction equipment during Phase 1 construction would potentially interfere with the operation of sensitive equipment. Recommended thresholds for vibration monitoring have been developed based on past vibration monitoring (during the seismic retrofit of the TowerJazz facility) and the vibration characteristics of construction equipment. For vibration-sensitive equipment, the vibration threshold would be 1,000 microinches per second, which corresponds to 60 VdB. As shown on Table 5.10-16 above, the operation of construction equipment would have the potential to adversely affect the operation of vibration-sensitive equipment at the TowerJazz facility, and this would be a significant impact.

Vibration-Induced Architectural Damage

Project-related construction vibration was evaluated for its potential to cause structural damage based on FTA's architectural damage criteria. The FTA threshold of 0.3 inch per second PPV is the point at which there is a risk of architectural damage to engineered concrete and masonry buildings, such as the existing office and commercial buildings surrounding the project site and residential buildings newly constructed in Phase 1. The nearest buildings would be farther than 25 feet from the construction site boundaries. As shown on Table 5.10-15, heavy construction equipment would not result in vibration that exceeds the 0.3 in/sec PPV criteria for vibration-induced structural damage at nearby sensitive structures. Therefore, the operation of heavy construction equipment vibration-induced architectural damage would be less than significant.

Phase 2

Table 5.10-17 shows the maximum levels of vibration that would be produced by construction equipment during Phase 2 construction at the nearest receptors. The operation of construction equipment during Phase 2 would exceed thresholds at the adjacent office buildings to the northeast (facing Birch Street) and the Phase 1 buildings adjacent to Phase 2 construction. Although these levels would have the potential to cause annoyance at the occupants of these buildings, vibration dissipates rapidly with distance. As vibration equipment moves around the site, annoyance caused by vibration generated by construction equipment would be sporadic and short term. Therefore, these impacts would be less than significant during Phase 2 construction.

Table 5.10-17
Vibration Levels for Construction Equipment during Phase 2

Equipment	*Office Buildings to the Southwest*	*Office Buildings to the Northwest*	*Office Buildings to the South*	*UCI Child Development*	*Office Buildings to the Northeast*	*Phase 1 Buildings*
Vibratory Roller	75	82	65	70	**86**	**94**
Large bulldozer	68	75	58	63	79	**87**
Small bulldozer	39	46	29	34	50	58
Jackhammer	60	67	50	55	71	**79**
Loaded trucks	67	74	57	62	78	**86**
Threshold	84	84	84	84	84	78
Exceed Thresholds?	No	No	No	No	**Yes**	**Yes**

Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, Transit Noise and Vibration Impact Assessment, 2006.
Notes: Receptor locations are depicted in Figure 5.10-6.
RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.
Bold indicates values exceeding applicable thresholds.

Vibration-Induced Architectural Damage

Project-related construction vibration was evaluated for its potential to cause structural damage based on FTA's architectural damage criteria. The FTA threshold of 0.3 inch per second PPV is the point at which there is a risk of architectural damage to engineered concrete and masonry buildings, such as the buildings surrounding the project site and future buildings constructed in Phase 1. The nearest buildings would be farther than 25 feet from the construction site boundaries. As shown on Table 5.10-15, heavy construction equipment would not result in vibration levels that exceed the 0.3 in/sec PPV criteria for vibration-induced structural damage at nearby sensitive structures. Therefore, vibration-induced architectural damage from the operation of heavy construction equipment would be less than significant.

IMPACT 5.10-6: CONSTRUCTION ACTIVITIES AT UPTOWN NEWPORT WOULD SUBSTANTIALLY ELEVATE THE DAYTIME NOISE ENVIRONMENT IN THE VICINITY OF NEARBY USES. [THRESHOLD N-3]

Impact Analysis: A project would normally have a significant effect on the environment if it would result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels. Two types of short-term noise impacts could occur during construction: (1) mobile-source noise from transport of workers, material deliveries, and debris and soil haul and (2) stationary-source noise from use of construction equipment. Existing uses surrounding the project site and future uses proposed by the project would be exposed to construction noise.

Phase 1 of the project is projected to begin in 2014 and be completed by 2018. Phase 2 could begin as early spring 2017 with buildout through 2021. This Draft EIR, therefore, addresses the potential noise impacts during Phase 1 construction to nearby office/retail developments, and the TowerJazz facility, and during Phase 2 construction to nearby retail and office uses and to the occupants of Phase 1 buildings.

Phase 1 Construction

Mobile-Source Noise

The transport of workers and equipment to the construction site and truck haul associated with demolition debris and soil haul would incrementally increase noise levels along roadways in the vicinity of the project site. Construction-related traffic would be limited to the haul routes, which would be accessed from Jamboree Road. Major regional access to the site is provided by MacArthur Boulevard and Jamboree Road. Phase 1 would start with demolition of the existing Half Dome building and its parking lot. As discussed in Section 5.2, *Air Quality*, demolition would take place over an approximately three-month period and require approximately 46 truck trips for removal of materials. Grading activities could involve up to 90,000 cubic yards of soil export to accommodate up to two stories of subterranean parking, resulting in up to 288 truck trips per day. Building construction would occur over an approximately four-year period and would overlap with some site improvements (e.g., paving/concrete pour, utilities). Paving and concrete activities over an approximately 20-day period would require up to 445 truck deliveries per day for materials. The existing average daily traffic volume on Jamboree Road and MacArthur Boulevard in the project area ranges from approximately 30,000 to 48,000. Although there would be a relatively high, single-event noise exposure potential with passing trucks, the expected number of workers and haul trucks is minimal compared to the existing daily traffic volumes on these designated haul roads. Also, construction traffic would be spread throughout the workday. Typically, a doubling of vehicle trips would increase noise levels by 3 dB, which is the increment that could cause a perceived increase in noise adjacent to truck haul routes. It is anticipated that construction-related trips generated by the project would not double the volumes of traffic currently on the local roadways. Therefore, noise impacts from construction-related trips during Phase 1 would be less than significant.

Onsite Construction Equipment Noise

The other type of short-term noise impact is related to demolition, grading, and building construction. Construction equipment is either stationary or mobile. Stationary equipment operates in one location for one or more days; mobile equipment moves around a site and varies in power settings and loads. To determine the energy-average L_{eq} sound level from the equipment's operation under varying power settings, the equipment's noise rating at a reference distance while operating at full power is adjusted by considering the duty cycle of the activity. Table 5.10-18 lists maximum construction equipment noise levels from a reference distance of 50 feet away and the industry standard duty cycles for typical development activities.

Table 5.10-18
Construction Equipment Noise Levels

Equipment	Noise Level (dBA) at 50 ft	Typical Duty Cycle
Auger Drill Rig	85	20%
Backhoe	80	40%
Blasting	94	1%
Chain Saw	85	20%
Clam Shovel	93	20%
Compactor (ground)	80	20%
Compressor (air)	80	40%
Concrete Mixer Truck	85	40%
Concrete Pump	82	20%
Concrete Saw	90	20%
Crane (mobile or stationary)	85	20%
Dozer	85	40%
Dump Truck	84	40%
Excavator	85	40%
Front End Loader	80	40%
Generator (25 KVA or less)	70	50%
Generator (more than 25 KVA)	82	50%
Grader	85	40%
Hydra Break Ram	90	10%
In situ Soil Sampling Rig	84	20%
Jackhammer	85	20%
Mounted Impact Hammer (hoe ram)	90	20%
Paver	85	50%
Impact Pile Driver	95	20%
Pneumatic Tools	85	50%
Pumps	77	50%
Rock Drill	85	20%
Scraper	85	40%

Table 5.10-18
Construction Equipment Noise Levels

Equipment	Noise Level (dBA) at 50 ft	Typical Duty Cycle
Tractor	84	40%
Vacuum Excavator (vac-truck)	85	40%
Vibratory Concrete Mixer	80	20%

Source: Thalheimer 2000.
KVA = kilovolt amps

Each stage of construction has a different equipment mix, depending on the work to be accomplished. The noise produced at each stage is determined by combining the L_{eq} contributions from each piece of equipment used at a given time. Construction activities associated with the proposed project would not require blasting, and pile driving would not be allowed during project construction. In the construction of residential and mixed-use projects, demolition and grading typically generate the highest noise levels because they require the largest equipment. Noise attenuation due to distance, the number and type of equipment, and the load and power requirements to accomplish tasks at each construction phase, construction activities would result in different noise levels at a given sensitive receptor. Heavy equipment, such as a dozer or a loader, can have maximum, short-duration noise levels in excess of 80 dBA at 50 feet. Since noise from construction equipment is intermittent and diminishes at a rate of 6 dB per doubling distance, the average noise levels at noise-sensitive receptors would be much lower, because mobile construction equipment would move around the site with different loads and power requirements.

Short-term noise can be associated with site preparation, grading, and building construction of the proposed land uses. Two types of short-term noise impacts could occur during construction: First, the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads; the second type of short-term noise impacts is during demolition, site preparation, grading, and/or physical construction. Construction is performed in distinct steps, each with its own mix of equipment and, consequently, its own noise characteristics. However, despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase.

The average and maximum noise levels for each stage of construction for Phase 1 was estimated with the Roadway Construction Noise Model using the list of construction equipment provided by the applicant. Noise levels were estimated for the different stages of construction at the closest offsite uses. These values are generally conservative because they do not take into account attenuation provided by the existing TowerJazz building and structures erected during this phase. Grading and demolition require the largest equipment and demand the most power loads; these stages typically result in the highest noise levels. During later construction stages—trenching for utilities, building construction and paving—noise levels are typically less, and the physical structures provide some attenuation.

Maximum noise levels for each stage were calculated as if the loudest piece of construction equipment was operating adjacent to the Phase 1 property line. Table 5.10-19 shows that the maximum noise levels from each construction stage at the nearest affected receptors would range from 65 to 90 dBA L_{max}. The maximum levels from construction equipment would range from 6 to 30 dBA above existing noise levels at the nearest noise sensitive receptors, Noise increases over 5 dBA are generally considered readily perceptible. Assuming a typical interior noise reduction due to exterior noise of 25 dBA, the maximum noise levels at the office areas facing the construction site would range from 40 dBA at the UCI child development center to 65 dBA L_{max} at the TowerJazz facility In summary, the maximum noise levels at the office areas facing the

construction site would be audible above the existing noise levels. These levels represent the maximum levels that could occur during Phase 1 construction when the loudest piece of equipment is operating at maximum power at the location nearest to each receptor.

Table 5.10-19
Maximum Noise Levels at Project Construction Sites during Phase 1 Construction (dBA L_{max})

Construction Phase	Affected Receptors					
	Office Buildings to the Southwest	Office Building to the Northwest	Office Buildings to the South	UCI Child Development	Office Buildings to the Northeast	TowerJazz Semiconductor Building
Demolition	78	77	78	75	65	90
Grading	71	69	70	67	57	82
Utilities	70	68	69	66	56	81
Paving	66	65	65	62	53	77
Building Construction	70	68	69	66	56	81
Existing Ambient Noise Levels[1] (dBA Leq)	58	60	67	67	59	60
Maximum Projected dBA over Ambient Level	20	17	11	8	6	30

Notes: Receptor locations are depicted in Figure 5.10-6. Calculations included in Appendix J. Calculations based on the Roadway Construction Noise Model with the construction information provided by the applicant.
[1] Existing ambient noise levels are based on monitored noise levels in the study area in Table 5.10-7 and on the monitoring location 7 in Table 5.10-8.

The average noise levels for each stage of construction during Phase 1 shown on Table 5.10-20 assume all equipment operating simultaneously during each construction stage at the center of Phase 1. The average noise levels from each construction stage to the nearest affected receptors would range from 46 to 71 dBA L_{eq}. Demolition and grading of the project would involve the heaviest pieces of construction equipment and would last approximately four months. Consequently, these activities would result in the loudest noise levels at the receptors in the project vicinity. Due to proximity to the Phase 1 construction site, the highest noise levels would generally occur at the TowerJazz facility areas facing the construction site. The average noise levels from construction equipment would cause temporary increases of up to 11 dBA above existing noise levels at the nearest noise-sensitive receptors.

Table 5.10-20
Average Noise Levels at Project Construction Sites during Phase 1 Construction ($dBA\ L_{eq}$)

Construction Stage	Affected Receptors					
	Office Buildings to the Southwest	Office Building to the Northwest	Office Buildings to the South	UCI Child Development	Office Buildings to the Northeast	TowerJazz Semiconductor Building
Demolition (66 days)	60	61	61	57	54	71
Grading (39 days)	55	56	56	52	49	66
Utilities (83 days)	54	55	55	51	48	65
Paving (18 days)	52	53	52	48	46	62
Building Construction (992 days)	54	55	55	51	48	55
Existing Ambient Noise Levels[1] (dBA Leq)	58	60	67	67	59	60
Highest Projected Average dBA over Ambient Level (dBA)	2	1	less than existing	less than existing	less than existing	11

Notes: Receptor locations are depicted in Figure 5.10-6. Calculations included in Appendix J. Calculations based on the Roadway Construction Noise Model with the construction information provided by the applicant.

[1] Existing ambient noise levels are based on monitored noise levels in the study area in Table 5.10-7 and on the monitoring location 7 in Table 5.10-8.

Phase 2 Construction

Mobile-Source Noise

Construction of Phase 2 would start with demolition of the TowerJazz facility, SCE substation, and TowerJazz parking lot. Demolition would take approximately four months and require approximately 58 truck trips for removal of materials. Paving and concrete activities over an approximately 20-day period would require up to 445 truck deliveries per day for materials. There would be a relatively high single-event noise exposure potential with passing trucks, but the expected number of workers and haul trucks is minimal compared to the existing daily traffic volumes on these designated haul roads. Noise impacts from construction-related trips during this phase would be less than significant.

Onsite Construction Equipment Noise

Noise levels during Phase 2 construction were estimated for the different stages of construction at the closest offsite uses. These values are generally conservative because they do not take into account attenuation provided by the Phase 1 buildings and structures erected during this phase. As in Phase 1, grading and demolition require the largest equipment, demand the most power loads, and typically result in

the highest noise levels. Maximum noise levels for each stage were calculated as if the loudest piece of construction equipment was operating adjacent to the property line. Table 5.10-21 shows that the maximum noise levels from each construction stage at the nearest affected receptors would range from 67 to 96 dBA L_{max}. These levels would be up to 36 dBA higher than existing noise levels. Noise increases over 5 dBA are generally considered readily perceptible. Assuming a typical interior noise reduction due to exterior noise of 25 dBA, the maximum noise levels at the office areas facing the construction site would range from 47 dBA at the UCI child development center to 71 dBA L_{max} at the nearest Phase 1 building. In summary, the maximum noise levels at the office areas facing the construction site would be audible above the existing noise levels. These levels represent the maximum levels that could occur during Phase 2 construction when the loudest piece of equipment is operating at maximum power at the location nearest each receptor.

Table 5.10-21
Maximum Noise Levels at Project Construction Sites During Phase 2 Construction (dBA L_{max})

	Affected Receptors					
Construction Phase	**Office Buildings to the Southwest**	**Office Building to the Northwest**	**Office Buildings to the South**	**UCI Child Development**	**Office Buildings to the Northeast**	**Nearest Phase 1 buildings**
Demolition	77	84	67	72	87	96
Grading	69	76	59	64	79	88
Utilities	68	75	58	63	78	87
Paving	64	71	54	59	75	83
Building Construction	68	75	58	63	78	87
Existing Ambient Noise Levels[1] (dBA Leq)	58	60	67	67	59	60
Maximum Projected dBA over Ambient Level	19	24	equal to existing	less than existing	28	36

Notes: Receptor locations are depicted in Figure 5.10-6. Calculations included in Appendix J. Calculations based on the Roadway Construction Noise Model with the construction information provided by the applicant.
[1] Existing ambient noise levels are based on monitored noise levels in the study area in Table 5.10-7 and on the monitoring location 7 in Table 5.10-8.

The average noise levels for each stage of construction during Phase 2, shown on Table 5.10-22, assume all equipment during each construction stage operates simultaneously at the center of Phase 2. The average noise levels from each construction stage to the nearest affected receptors would range from 48 to 70 dBA L_{eq}. Demolition and grading of the project would involve the heaviest pieces of construction equipment and last approximately four months. Consequently, these activities would result in the loudest noise levels at the receptors in the project vicinity. Due to proximity to the Phase 2 construction site, the higher noise levels would occur at the Phase 1 buildings adjacent to the construction site. At the nearest existing noise-sensitive receptors, the average noise levels from construction equipment would cause temporary increases of up to 7 dBA above existing noise levels.

Table 5.10-22
Average Noise Levels at Project Construction Sites During Phase 2 Construction (dBA Leq)

Construction Phase	Affected Receptors					
	Office Buildings to the Southwest	Office Building to the Northwest	Office Buildings to the South	UCI Child Development	Office Buildings to the Northeast	Nearest Phase 1 buildings
Demolition (88 days)	54	67	54	59	61	70
Grading (47 days)	49	62	49	54	56	65
Utilities (85 days)	48	61	48	53	55	64
Paving (18 days)	46	59	45	50	53	61
Building Construction (992 days)	48	61	48	53	55	64
Existing Ambient Noise Levels[1] (dBA Leq)	58	60	67	67	59	N/A
Highest Projected Average dBA over Ambient Level (dBA)	less than existing	7	less than existing	less than existing	2	N/A

Notes: Receptor locations are depicted in Figure 5.10-6. Calculations included in Appendix J. Calculations based on the Roadway Construction Noise Model with the construction information provided by the applicant.

[1] Existing ambient noise levels are based on monitored noise levels in the study area in Table 5.10-7 and on the monitoring location 7 in Table 5.10-8.

Summary of Construction Activities

Project-related construction activities would be limited to daytime hours and would comply with the construction hours specified in Section 10.28.040, Construction Activity – Noise Regulations, of the City's Municipal Code. The maximum noise levels and increases over existing conditions would be temporary and sporadic. As construction equipment moves around the site, the levels are reduced at a rate of 6 dBA per doubling distance from the source. The adjacent office and retail uses that would be mostly impacted during Phase 1 construction are not designated noise-sensitive uses, but construction activity would potentially cause annoyance and interfere with office activities in areas facing the Phase 1 construction area. Noise disturbances may occur for prolonged periods of time. In addition, construction of Phase 2 would result in high noise levels at the residential uses built during project Phase 1. Due to the length of construction activities and the level of noise from the combination of construction activities, project-related construction noise at the nearby office and retail receivers and future Phase 1 uses would be significant.

IMPACT 5.10-7: THE UPTOWN NEWPORT PROJECT SITE IS LOCATED OUTSIDE THE 65 DBA CNEL NOISE CONTOUR OF JOHN WAYNE AIRPORT AND WOULD NOT RESULT IN SUBSTANTIAL AIRCRAFT NOISE EXPOSURE TO FUTURE OCCUPANTS AND WORKERS. [THRESHOLDS N-5]

Impact Analysis: John Wayne Airport is approximately 0.6 mile west of the project site. The site is in the airport environs land use plan (AELUP) for the airport, but is located outside the primary departure corridors and flight paths. Noise from takeoffs and occasionally landings contribute to the ambient noise environment at the project site.

The AELUP identifies land uses that are "normally acceptable" and "conditionally acceptable" in each noise impact zone delineated by the respective CNEL noise contour derived from studies of aircraft flight operations into and out of JWA. AELUP defines the noise exposure to be "moderate noise impact" in the 60 dBA CNEL noise contour, Noise Impact Zone 2. The noise contours for operations at John Wayne Airport were obtained from the AELUP. The contours in Figure 5.10-7 depict the 65 and 60 dB CNEL noise contours, reflecting expected future flight levels and a reasonable mix of aircraft types. Figure 5.10-7 shows that the southern and easternmost parts of the site are between the 55 dB and 60 dB CNEL contours for John Wayne Airport. With respect to noise and land use compatibility guidelines for residential land uses, portions of the site are in Noise Impact Zone 2. The AELUP notes that residents occupying residential units in Noise Impact Zone 2 may experience "inconvenience, annoyance, or discomfort arising from noise of aircraft at the airport." As outlined in the AELUP, the residential use interior sound attenuation in this noise impact zone is required to achieve a CNEL value not exceeding an interior level of 45 dBA.

Future project-related residential units that would fall within Noise Impact Zone 2 would be required to adhere to the 45 dBA CNEL interior noise standard outlined in the AELUP for JWA. As the project site is located outside the 65 dBA CNEL noise contours, an exterior-to-interior noise reduction of 20 dBA would be required to meet the 45 dBA CNEL criteria. Standard windows and doors typically achieve a minimum of 25 dBA reduction with windows closed. Because the proposed residential units would be provided with air conditioning units, allowing for a windows closed condition, and because typical construction would provide sufficient exterior-to-interior noise reduction to adhere to the 45 dBA CNEL interior noise standard due to aircraft noise, the proposed land uses would be compatible with noise exposure from aircraft noise and would be less than significant.

In addition, the City's General Plan Noise Element requires that residential development in the airport area be located outside of the 65 dBA CNEL noise contour and requires residential developers to notify prospective purchasers or tenants of aircraft overflight and noise. This is consistent with AB 2776, which requires any person who intends to sell or lease residential properties within an airport influence area to disclose that fact to the person buying the property. Compliance with these regulations shall be implemented during project design review.

5.10.4 Cumulative Impacts

Mobile Source Noise

Traffic noise increases on local roadways in the vicinity of the project site were shown previously in Tables 5.10-9 to 5.10-11. The difference in traffic noise between the existing environment and 2021 conditions represents cumulative noise impacts, whereas the difference between the 2021 Without Project and With Project conditions represents the project's contribution to cumulative noise increases. Project-related cumulative noise impacts may occur if the project's contribution to cumulative noise increases results in a substantial noise increase in comparison to existing conditions (3 dBA or more when the existing CNEL is 60 dBA or less, 2 dBA or more when the CNEL is between 60 and 65 dBA, 1 dBA or more when the CNEL is

between 65 and 75, or any amount when the CNEL exceeds 75 dBA in the vicinity of any noise-sensitive receptors). Thus, where individual project-related impacts are identified, the project would also contribute to cumulative traffic noise increases on local roadways. However, as shown in Table 5.9-11, the project would result in a maximum traffic noise increase of 0.2 dBA CNEL along study area roadways. At these locations, the future noise environment at the residences would be less than 75 dBA CNEL. Consequently, project-related traffic noise increases would not be cumulatively considerable and no significant cumulative noise impacts would occur.

Stationary Source Noise

Unlike transportation noise sources, whose effects can extend well beyond the limits of the project site, stationary noise generated by the project is limited to impacts to noise-sensitive receptors adjacent to the project site. As no noise-sensitive uses are located adjacent to the project site, and no significant stationary noise impacts from project implementation were identified and the City of Newport Beach restricts stationary noise generated on a property from creating a nuisance to other noise-sensitive receptors, cumulative stationary source noise generation would also be less than significant.

Construction Noise and Vibration

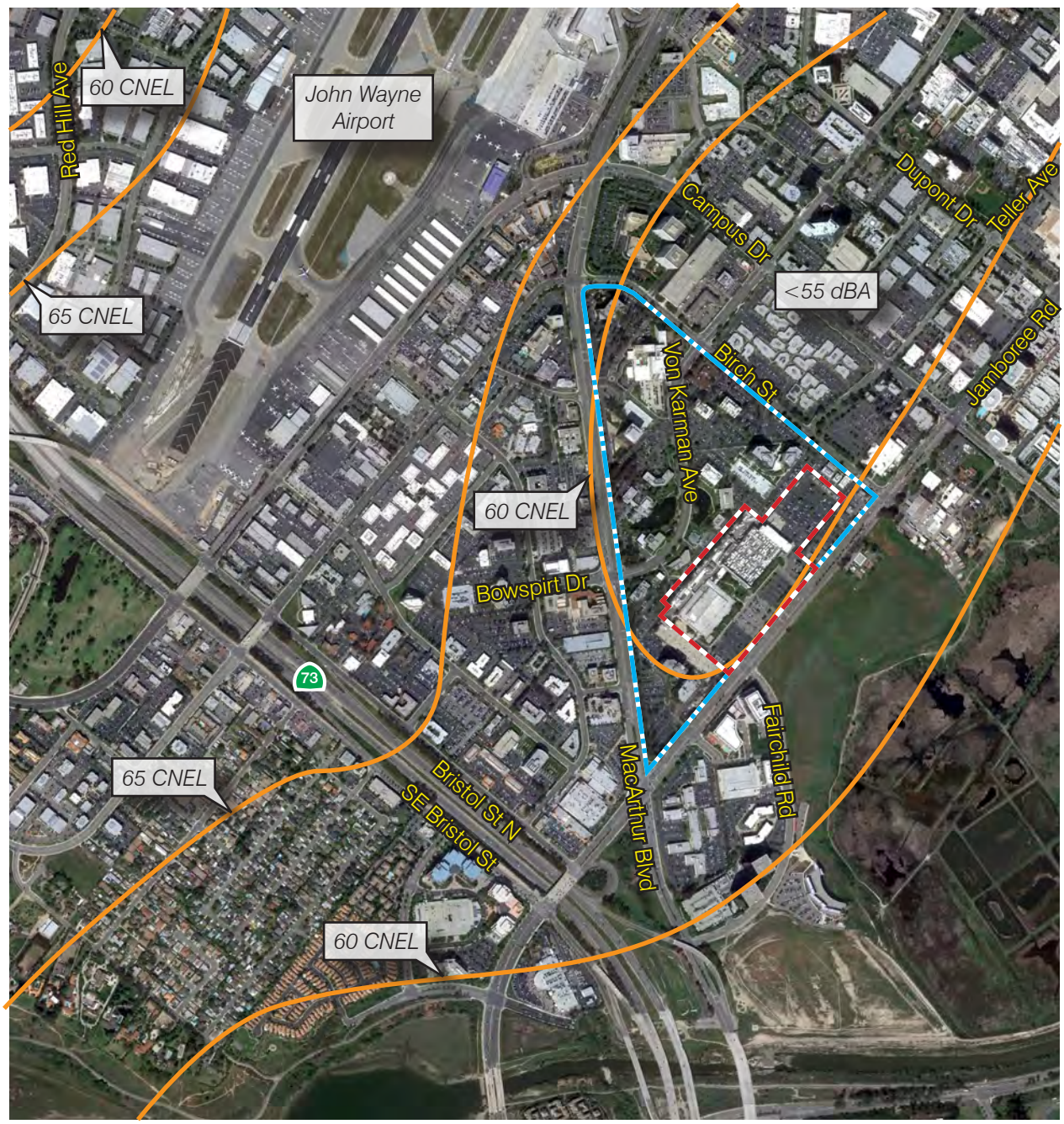
Like stationary source noise, cumulative construction noise and vibration impacts are confined to a localized area. Consequently, cumulative impacts would only occur if other projects are being constructed in the local vicinity of the project at the same time as the project. Although adjacent properties are developed, there is project application for development of the adjacent Koll property (12.7 acres) site in accordance with the Integrated Conceptual Development Plan (see Figure 3-5, *Integrated Conceptual Development Plan*). Depending on the timing of this project, it is possible that some construction activities may occur simultaneously with development activities for Uptown Newport. Since such activities may combine with project-site activities, this cumulative impact is potentially significant.

5.10.5 Existing Regulations and Standard Conditions

Existing Regulations

- Section 10.26.025, City of Newport Beach Municipal Code: Exterior Noise Standards.
- Section 10.26.045, City of Newport Beach Municipal Code: Equipment sound ratings of new heating ventilation and air condition (HVAC) equipment.
- City of Newport Beach Municipal Code Chapter 10.32, Sound-Amplifying Equipment
- Section 10.28.040, City of Newport Beach Municipal Code: Construction Noise: Construction Activity – Noise Regulations.
- State of California Interior and Exterior Noise Standards are incorporated into the California Building Code (Title 24 and Title 25, California Code of Regulations) and are the noise standards required for new construction in California.
- Community noise standards adopted by the City of Newport Beach in the General Plan Noise Element.
- Assembly Bill 2776, which requires any person who intends to sell or lease residential properties within an airport influence area to disclose that fact to the person buying the property.

John Wayne Airport Future Noise Level Contours



Integrated Concept Development Plan

Project Site

Noise Contour Lines

0 1,500
Scale (Feet)

Source: Newport Beach 2006

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City of Newport Beach Standard Conditions of Approval

The following City-adopted standard operating conditions of approval would apply to the proposed project:

- The project must comply with the exterior noise standards for residential uses of the Noise Ordinance. The exterior noise level standard is 65 dBA between the hours of 7:00 AM and 10:00 PM and 60 dBA between the hours of 10:00 PM and 7:00 AM. An acoustic study shall be performed by a qualified professional that demonstrates compliance with these standards of the Noise Ordinance. This acoustic study shall be performed and submitted to the Community Development Department as part of the Site Development Review permit application for each residential structure. If the exterior noise levels exceed applicable standards, additional mitigation shall be required, which may include the installation of additional sound attenuation devices as recommended by the acoustic study and subject to the approval of the Community Development Director.

- The operator of the proposed commercial uses shall be responsible for the control of noise generated by the subject facility including, but not limited to, noise generated by patrons, food service operations, and mechanical equipment. All noise generated by the proposed use shall comply with the provisions of Chapter 10.26 and other applicable noise control requirements of the Newport Beach Municipal Code. The maximum noise shall be limited to no more than noise limits specified in Table 5.10-3 for the specified time periods unless the ambient noise level is higher.

- All mechanical equipment shall be screened from view of adjacent properties and adjacent public streets for each residential structure, as authorized by a Site Development Review permit, and shall be sound-attenuated in accordance with Chapter 10.26 of the Newport Beach Municipal Code, Community Noise Control.

- The City of Newport Beach Municipal Code Chapter 10.32, Sound-Amplifying Equipment requires a permit for use of any sound-amplifying equipment and regulates the volume so sound-amplifying equipment is not a nuisance to persons. The use of sound-amplifying equipment is prohibited outdoors between the hours of 8 PM and 8 AM.

- The City of Newport Beach General Plan Noise Element, thru Policy N 3.2, requires that residential development in the airport area be outside of the 65 dBA CNEL noise contour no larger than shown in the 1985 JWA Master Plan and require residential developers to notify prospective purchasers or tenants of aircraft overflight and noise.

Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.10-1 and 5.10-7.

Without mitigation, the following impacts would be **potentially significant**:

- Impact 5.10-2

  Phase 1 and Phase 2:

  Proposed noise-sensitive uses would be exposed to noise levels from stationary noise generated from subterranean parking garage activity and truck deliveries exceeding thresholds stated in the City's Municipal Code for residential uses.

- Impact 5.10-3

  Phase 1:

  Residential patios and balconies constructed during Phase 1 facing Jamboree Road and the TowerJazz facility would be exposed to noise levels above 65 dBA CNEL.

  Phase 2:

  Residential Patios and balconies constructed during Phase 2 facing Jamboree Road would be exposed to noise levels above 65 dBA CNEL.

- Impact 5.10-4

  Phase 1 and Phase 2:

  Standard residential windows and doors would not provide the required exterior-to-interior noise reduction to meet the interior noise level of 45 dBA CNEL.

- Impact 5.10-5

  Phase 1:

  The operation of construction equipment during Phase 1 construction would exceed thresholds for vibration annoyance and architectural damage at the TowerJazz facility, having the potential to adversely interfere with the operation of vibration-sensitive equipment at the TowerJazz facility.

  Phase 2:

  The operation of construction equipment during Phase 2 construction would exceed thresholds for vibration annoyance and architectural damage at the adjacent office buildings and the residential buildings constructed during Phase 1 that would be located near the boundaries of the Phase 2 construction.

- Impact 5.10-6

  Phase 1 and Phase 2:

  During construction of Phase 1, construction activity would have the potential to cause annoyance and interfere with activities at the office buildings and the TowerJazz facility facing the construction area. In addition, construction of Phase 2 would result in high noise levels at the residential uses built during project Phase 1 and on existing office buildings adjacent to the project site.

5.10.6 Mitigation Measures

Impact 5.10-2

Phase 1 and Phase 2:

10-1 The parking lot surface of all parking garages shall be textured to eliminate tire squeal noise. Ventilation equipment for the parking garages shall be designed to meet the City's

noise limits for Zone III, not exceed a daytime maximum of 60 dBA L_{eq} (or 80 dBA L_{max}) and a nighttime maximum of 50 dBA L_{eq} (or 70 dBA L_{max}). This can be accomplished by selecting quieter equipment or by enclosing ventilation equipment.

10-2 Truck deliveries shall be restricted to the daytime hours between 7 AM and 10 PM.

Impact 5.10-3

Phase 1:

10-3 Prior to issuance of building permits for Phase 1, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department for review and approval. The study shall demonstrate that all residential units would meet the 65 dBA CNEL exterior noise standard for all patios, balconies, and common outdoor living areas (playgrounds, parks, and swimming pools). The necessary noise reduction may be achieved by implementing noise control measures at the TowerJazz facility and at the receiver locations, as described in detail in the Technical Memorandum provided by Wilson Ihrig and Associates (Appendix J). The technical memorandum includes noise control measures that would be implemented at the rooftop mechanical equipment and at the cooling towers of the TowerJazz facility, summarized below:

- Rooftop Mechanical Equipment Noise Control
  - Exhaust Fan Noise Control: The exhaust fan noise can be most effectively controlled by constructing noise barriers around three sides of each of the exhaust stacks, such that the barriers would be located between the stacks and the future Phase 1 development. In addition to a barrier, sound levels can be reduced by modifying the exhaust stack and fan.
  - Other Equipment: Other specific pieces of rooftop equipment can be treated with barriers lined with acoustical absorption. Ducts and pipes that radiate significant noise can be treated by adding mass to the duct walls, or lined with acoustical absorption or lead-loaded vinyl.
  - Screen: The performance of the existing sheet metal parapet wall/screen can be enhanced by treating the upper eight feet of the screen with acoustical absorption.
- Cooling Towers Noise Control
  - Relocation: Moving the cooling towers away from the Phase 1 development would be an effective approach to noise control.
  - Replacement: Replacement of the existing cooling towers can be considered, as new towers would have new coils with improved air flow and efficiency.
  - Additional Cooling Towers: Additional cooling towers would reduce the cooling demand on individual units, allowing the fans to operate at lower speed.
  - Fan Noise: The cooling tower fans appear to be the primary noise source. The fan noise emanates from the top of the cooling towers and from the coils. Waterfall noise, though not readily apparent, also transmits through the coils to the exterior.

The following provisions may be applied to the existing cooling towers to reduce cooling tower noise: coil replacement, variable frequency drives, tip seals, aerodynamic fan blades, treatment of the discharge stack, acoustical louvers, and sound barriers.

The measures described above, or some combination thereof, would reduce the exterior noise levels at units facing the TowerJazz facility to 65 dBA CNEL. The property owner/developer shall implement these noise control measures at the TowerJazz facility and demonstrate with noise level measurements that noise from the operation of mechanical equipment at the TowerJazz facility would not exceed 65 dBA CNEL at the property boundary or at the nearest receptors.

In addition, the final grading and building plans shall incorporate the required noise barriers at common exterior areas and patios (glass/Plexiglas patio enclosures, wall, berm, or combination wall/berm) and at balconies (glass or Plexiglas balconies enclosure). Patio enclosures for units facing the TowerJazz facility would need acoustical absorption to absorb sound in the balcony. The property owner/developer shall install these barriers and enclosures.

Phase 2:

10-4 Prior to issuance of building permits for Phase 2, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department to demonstrate that all residential units would meet the 65 dBA CNEL exterior noise standard for all patios, balconies, and common outdoor living areas. The necessary noise reduction may be achieved by implementing noise control measures at the receiver locations. The final grading and building plans shall incorporate the require noise barriers (patio enclosure, wall, berm, or combination wall/berm), and the property owner/developer shall install these barriers and enclosures.

Impact 5.10-4

Phase 1:

10-5 Prior to issuance of building permits for each residential structure located within Phase 1, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department to demonstrate that all residential units would meet the 45 dBA CNEL interior noise standards for habitable rooms (i.e., bedrooms, living rooms, dens, kitchens) due to exterior noise from traffic, aircraft overflights, and stationary noise from the TowerJazz facility. The report shall evaluate the effects of the precise building placement and design materials used for construction. It shall describe and quantify the noise sources impacting the buildings, the amount of outdoor-to-indoor noise reduction provided by the structure, and any upgrades required to meet the interior noise standard. This standard must be achieved with the windows closed in conjunction with a fresh air mechanical ventilation or air conditioning system, and it may require upgraded construction methods and materials. According to the preliminary assessment provided by Wilson Ihrig and Associates, the required noise reduction at units facing the TowerJazz facility would be achieved with acoustically rated doors and windows with a Sound Transmission Class (STC) no greater than 35. The

measures described in the report shall be incorporated into the architectural plans for the buildings and implemented with building construction.

Phase 2:

10-6 Prior to issuance of building permits for each residential structure located within Phase 2, a detailed acoustical study based on architectural plans shall be prepared by a qualified acoustical consultant and submitted to the Community Development Department to demonstrate that all residential units would meet the 45 dBA CNEL interior noise standards for habitable rooms (i.e., bedrooms, living rooms, dens, kitchens) with exterior noise from traffic and aircraft overflights. The report shall evaluate the effects of the precise building placement and design materials used for construction. It shall describe and quantify the noise sources impacting the buildings, the amount of outdoor-to-indoor noise reduction provided by the structure, and any upgrades required to meet the interior noise standard. This standard must be achieved with the windows closed in conjunction with a fresh air mechanical ventilation or air conditioning system, and it may require upgraded construction methods and materials. The measures described in the report shall be incorporated into the architectural plans for the buildings and implemented with building construction.

Impact 5.10-5

Phase 1:

10-7 During Phase 1 construction, the construction contractor shall implement a vibration control program to reduce vibration levels at the TowerJazz facility. The Technical Memorandum prepared by Wilson Ihrig and Associates includes several measures to control vibration at the TowerJazz facility, outlined below:

- Heavy Construction Equipment:
  - Within 200 feet of the TowerJazz facility, wheel loaders and dozers shall be employed rather than the track-laying heavy equipment. Contractor training and notification should be conducted to minimize dozer blades and buckets being dropped on the ground for wheeled equipment operated within 200 feet of the TowerJazz facility.
  - Static rollers should be employed where compacting is required. To avoid excessive vibration during operation of sensitive equipment, vibratory rollers should not be used unless TowerJazz is consulted and ground vibration produced by such rollers is found to be acceptable to TowerJazz operations.
  - Hoe rams shall be not be used to break up concrete grade slabs within 100 feet of the TowerJazz facility and office uses adjacent to the project site. Concrete slabs can be sawed and lifted away to another location where they may be broken up by the hoe ram.
- Haul Trucks: Haul trucks shall be routed away, to the extent possible, from the TowerJazz Semiconductor facility.

- Lay-Down Areas: Lay-down areas include material storing areas such as piles, steel shapes, and other heavy items. The lay-down area should be located in portions of the construction site that are at least 200 feet away from the TowerJazz facility.

- Vibration Monitoring: Vibration monitoring shall be conducted in the TowerJazz facility during development and construction of Phase 1. Vibration monitors shall be located in select locations where sensitive equipment is located in consultation with TowerJazz. The most appropriate location for monitoring would be at the building foundations along the exterior sides facing the construction work. Recommended thresholds for vibration monitoring have been developed based on past vibration monitoring at TowerJazz during the seismic retrofit and on the vibratory characteristics of construction equipment that are anticipated to be used during construction of Phase 1. Recommended thresholds for vibration monitoring are:

    - A vibration level of 0.125 in/sec will trigger a warning that will notify the construction operator and TowerJazz;

    - A vibration level of 0.250 in/sec will trigger a warning that will notify the construction operator and TowerJazz of excessive vibration and that the construction activity that is causing the excessive vibration should be stopped.

    - Construction activity may recommence upon satisfactory assessment that the continued construction activity will not substantially affect the use of vibration-sensitive equipment or interfere with operations at the TowerJazz facility. Final protocol for notification to TowerJazz and construction equipment operators will be determined and documented in a vibration monitoring plan prepared prior to construction.

Impact 5.10-6

Phase 1 and Phase 2:

10-9 The construction contractor shall ensure that all construction equipment onsite is properly maintained and tuned to minimize noise emissions.

10-10 The construction contractor shall ensure that construction equipment is fit with properly operating mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped by the manufacturer.

10-11 The construction contractor shall locate all stationary noise sources (e.g., generators, compressors, staging areas) as far from residential and recreational receptor locations as is feasible.

10-12 Material delivery, soil haul trucks, equipment servicing, and construction activities shall be restricted to the hours set forth in the City of Newport Beach Municipal Code, Section 10.28.040.

5.10.7 Level of Significance After Mitigation

Impact 5.10-2

Mitigation Measure 10-1 would reduce noise levels from operation of the parking garage, eliminating tire squeal and controlling noise from the ventilation equipment. Mitigation Measure 10-2 would limit truck deliveries to the least noise-sensitive daytime hours, from 7 AM to 10 PM. With implementation of Mitigation Measures 10-1 and 10-2, this impact would be less than significant.

Impact 5.10-3

Mitigation Measures 10-3 and 10-4 would reduce noise levels from operation of the TowerJazz facility and provide noise reduction at the common and private exterior living areas to meet the 65 dBA CNEL exterior noise standard. With implementation of Mitigation Measures 10-3 and 10-4, this impact would be less than significant.

Impact 5.10-4

Mitigation Measures 10-5 and 10-6 would incorporate noise reduction measures in the building construction for each individual residential structure to provide the necessary exterior-to-interior noise reduction to meet the 45 dBA CNEL interior noise standard. With implementation of Mitigation Measures 10-5 and 10-6, this impact would be less than significant.

Impact 5.10-5

Mitigation Measures 10-7 and 10-8 would incorporate vibration control measures during construction. With implementation of Mitigation Measures 10-7 and 10-8, vibration levels would be occasionally perceptible, but sporadic and limited during the construction period. With Mitigation Measure 10-7, feasible vibration control provisions can be incorporated to reduce Phase 1 construction vibration to acceptable levels at the TowerJazz facility. With implementation of vibration control measures, project construction would not cause vibration levels that would substantially affect the use of vibration-sensitive equipment or interfere with operations at the TowerJazz facility. In summary, with implementation of Mitigation Measures 10-7 and 10-8, vibration impacts would be less than significant.

Impact 5.10-6

Mitigation Measures 10-9 to 10-12 would reduce noise levels from construction activities at the nearby uses during Phase 1 and Phase 2. Because of the height of the buildings adjacent to the project site, sound walls blocking line of sight between construction activities and nearby noise-sensitive receptors would be infeasible. Because many of the residential areas overlook proposed construction activities, sound walls would not be effective at these locations. However, despite the application of mitigation measures, nearby noise-sensitive uses would be temporarily exposed to elevated noise levels during construction activities. Impact 5.10-6 would remain Significant and Unavoidable.

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5.11 POPULATION AND HOUSING

This section of the Draft Environmental Impact Report (DEIR) examines the potential for socioeconomic impacts of the proposed Uptown Newport project on the City of Newport Beach, including changes in population, employment, and demand for housing, with a particular emphasis on jobs/housing relationships in the general vicinity of the proposed project and on affordable housing.

5.11.1 Environmental Setting

Population, Employment, and Housing

The City of Newport Beach has a current population of approximately 84,200, with about 38,400 households, and 82,500 employees (SCAG 2012b). Table 5.11-1 shows the current and projected housing, employment, and population numbers for the City, as determined in the 2012 Adopted Regional Transportation Plan (RTP) prepared by the Southern California Association of Governments (SCAG).

Table 5.11-1
2012 Adopted RTP Population, Housing, and Employment Projections for Newport Beach, 2008–2035

	2008	2020	2035
Population	84,200	88,700	90,300
Housing	38,400	39,500	40,700
Employment	82,500	77,000	77,700
Jobs-to-Housing Ratio	2.15	1.95	1.91

Source: SCAG 2012b.

Between 2008 and 2035, the population of the City of Newport Beach is forecasted to increase from 84,200 to 90,300, an increase of 8,893 or 7.2 percent (SCAG 2012b).

In comparison, the Southern California six-county region, which includes Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial counties, would experience an increase in population growth of 23.5 percent, from 17,894,000 in 2008 to 22,091,000 in 2035 (SCAG 2012b). Orange County would have an increase in population growth of 14.5 percent. Table 5.11-2 offers regional population, employment, and housing projections for comparison.

Table 5.11-2
2012 Adopted RTP Population, Housing, and Employment Projections for Southern California Region and Orange County, 2008–2035

	2008	2020	2035
Southern California Region			
Population	17,894,000	19,663,000	22,091,000
Housing	5,814,000	6,458,000	7,325,000
Employment	7,738,000	8,414,000	9,441,000
Jobs-to-Housing Ratio	1.33	1.30	1.29
Orange County			
Population	2,989,000	3,266,000	3,421,000
Housing	987,000	1,049,000	1,125,000
Employment	1,624,000	1,626,000	1,779,000
Jobs-to-Housing Ratio	1.65	1.55	1.58

Source: SCAG 2012b.

Jobs-to-Housing Ratios

The jobs-to-housing ratio is a general measure of the balance between the number of jobs and number of housing units in a geographic area, without regard to economic constraints or individual preferences. The jobs-to-housing ratio is one indicator of a project's effect on growth and quality of life near a project. Jobs-to-housing goals and ratios are advisory only. No ideal jobs/housing ratio is adopted in state, regional, or city policies. However, SCAG considers an area balanced when the jobs-to-housing balance is 1.36—communities with more than 1.36 jobs per dwelling unit are considered jobs rich and those with fewer than 1.36 are housing rich (SCAG 2004). Additionally, the American Planning Association published a Planning Advisory Service report in 2003 that states a target jobs-to-housing balance is one home for every 1.5 jobs (APA 2003). A job-to-housing imbalance is an indication of potential air quality and traffic problems associated with commuting.

As shown in Table 5.11-1, the City of Newport Beach had a jobs-to-housing ratio of 2.15 in 2008, and it is expected to decrease to 1.91 by 2035. In both projections, the City's jobs-to-housing ratio is considered jobs rich because of the high number of jobs per household unit (see Table 5.11-2).

Project Site

The project site does not currently have any housing or permanent population. Existing land uses include a 126,675-square-foot, single-story building at 4311 Jamboree Road (Half Dome building) and the 311,452-square-foot, two and three-story building at 4321 Jamboree Road (TowerJazz facility). The Half Dome building is currently used for office, light industrial, storage, and cafe services and employs approximately 161 people.[1] The TowerJazz facility is a semiconductor manufacturing facility and employs approximately 3,000 people (TowerJazz 2012). Therefore, approximately 3,161 people currently work on the project site.

Applicable Plans

Integrated Conceptual Development Plan

Pursuant to the General Plan Land Use Element requirement (Policy LU 6.15.11), the Airport Business Area Integrated Conceptual Development Plan (ICDP) was approved by the Newport Beach City Council on September 28, 2010. As described in Chapter 3, *Project Description*, it provides for the redevelopment of the approximately 25-acre Uptown Newport site and 12.7 acres between Birch Street and Von Karman Avenue (Koll property), with new residential development and open space. According to the ICDP, the Uptown Newport project site is planned for up to 632 units to replace existing industrial and office uses—which would be demolished—as well as 290 additive units and potentially up to 322 density bonus units (per City of Newport Beach Zoning Code Section 20.32). Together, the Koll and Uptown Newport properties would use all 550 additive units allocated to the ICDP area by the City's General Plan. Since the applicant is proposing to provide affordable housing units on the project site, they may be eligible for a density bonus per Zoning Code Section 20.32, depending on the percentage of affordable housing units that are provided and their affordability levels. Per the code, a maximum density bonus of 35 percent is allowed when 11 percent of the units are affordable to very low-income households, 20 percent are affordable to low-income households, or 40 percent are affordable to moderate-income households (as for-sale units only).

[1] Based on SCAG's *Employee Density Study Summary Report* (2001), light manufacturing land uses in Orange County have an employee density of one employee per 786 square feet of gross building space. The other prominent onsite land use, low-rise office space, has a slightly higher density of one employee per 352 square feet. Since the existing employment numbers would be subtracted from the proposed project's employment generation, the light manufacturing factor is used to provide a more conservative analysis.

The Uptown Newport project would result in the complete redevelopment of the property from an industrial/office complex to a master-planned residential village. In addition to the 1,244 residential units, the ICDP allows up to 11,500 square feet of ground-level retail and commercial uses and neighborhood park areas. A summary of the residential unit allocation for the ICDP is shown in Table 3-1, in Chapter 3, *Project Description*.

City of Newport Beach 2011 Housing Element

The Housing Element is a General Plan element required by the state and must be reviewed and updated periodically in accordance with state law. The 2008–2014 Housing Element for the City of Newport Beach was adopted in November 2011. It reflects the City's housing stock and need for new housing, including affordable housing. Table 5.11-3 provides the number of housing units in the City between years 2000 and 2007.

Table 5.11-3
Newport Beach Housing Trends, 2000–2007

Year	Total Housing Units	Net Increase from Previous Year
2000	37,567	523
2001	37,779	212
2002	38,009	230
2003	41,590	3,581
2004	41,851	261
2005	42,143	292
2006	42,352	209
2007	42,580	228

Source: Newport Beach 2011.

Table 5.11-4 provides the housing mix in the City of Newport Beach in 2007. The majority (45.1 percent) of housing is single-family detached housing, followed by multi-family housing (23.1 percent), single-family attached housing (16.6 percent), duplex to fourplex housing (12.9 percent), and mobile homes (2.1 percent).

Table 5.11-4
Housing Unit Mix, 2007

Housing Unit Type	Number of Units	Percent of Total
Single-family detached	19,186	45.1%
Single-family attached	7,166	16.6%
Duplex to fourplex	5,520	12.9%
Multi-family (5+ units)	9,845	23.1%
Mobile home	863	2.1%
Total	42,580	100.0%

Source: Newport Beach 2011.

Regional Housing Needs Assessment

One of the roles of the Housing Element is to plan for the state-mandated Regional Housing Needs Assessment (RHNA) allocations in order to address existing and future housing needs, including affordable housing. Regional councils of governments are responsible for establishing housing growth policies. In Orange County, these are contained in the SCAG RHNA. The draft RHNA allocations for the 2014–2021 cycle

were released in February 2012, and the final RHNA allocations are scheduled to be approved and adopted by December 2012 (SCAG 2012a).

Between the 2000–2005 and the 2006–2014 RHNA cycles, the City of Newport Beach had to accommodate a total combined housing need of 1,914 units, including 1,212 very-low-, low-, and moderate-income units (Newport Beach 2011). With the release of the recent 2014–2021 draft RHNA allocations, the City only needs to accommodate a total identified housing need of 5 units, including 3 affordable to very low-, low-, and moderate-income households (SCAG 2012a).

To help the City meet its RNHA goals, the City of Newport Beach requires new residential subdivision projects to provide affordable housing pursuant to the City's Housing Element Program 2.2.1 and the City's Municipal Code, Chapter 19.54 (Inclusionary Housing) and Chapter 20.32 (Density Bonus). Project developers may meet affordable housing requirements through implementation of either Chapter 19.54 or Chapter 20.32. Under Chapter 19.54, developers are required to prepare an Affordable Housing Implementation Plan (AHIP) and provide 15 percent of a project's units as either for-sale units affordable to moderate income households or rental units affordable to very-low or low-income households. Alternative forms of compliance are available, including off-site construction, conversion of market-rate units, land donation, and in-lieu housing fees. As an incentive for providing affordable units onsite, the City also offers density bonuses, up to a maximum of 35 percent, pursuant to Chapter 20.32 and State law.

The Regional Comprehensive Plan and the Regional Transportation Plan

SCAG's Regional Comprehensive Plan provides policies for dealing with anticipated growth including population, housing, and employment expected throughout southern California. The RCP incorporates data in the RTP, which is discussed under "Population, Employment, and Housing" in this section. The RTP has growth projections based on a compilation of county and local projections, as well as regional economic and population growth models. RTP forecasts are then used in the formulation of regional plans dealing with regional air quality, housing, transportation/circulation, and other infrastructure issues.

5.11.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

P-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

P-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

P-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: thresholds P-2 and P-3.

These impacts will not be addressed in the following analysis.

5.11.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.11-1: THE PROPOSED PROJECT WOULD DIRECTLY RESULT IN A PROJECTED POPULATION GROWTH OF 2,724 RESIDENTS IN THE PROJECT AREA. [THRESHOLD P-1]

Impact Analysis: The proposed project would replace the existing industrial land uses on the project site with a total of 1,244 residential units, 11,500 square feet of retail, and 2.05 acres of park space. Upon project buildout, this is projected to result in an increase in housing and a decrease in employment in the City of Newport Beach, as shown on Table 5.11-2.

Phase 1

Phase 1 would include development of the southwestern portion of the property, which includes removal of the existing single-story Half Dome office building and development of 680 residential units, 11,500 square feet of neighborhood commercial use, a 1.03-acre park, and roadways for access and internal circulation. The TowerJazz facility fabrication facility on the site of Phase 2 of the project would continue operating during construction and initial operation of Phase 1.

The first phase of the proposed project would bring approximately 1,489 people and 26 jobs to the project site. Compared to the existing land uses, this results in an increase of approximately 1,489 people and a decrease of approximately 135 jobs (see Table 5.11-5).

Phase 2

Phase 2 would include demolition of the remaining TowerJazz facility and development of approximately 564 residential units, a 1.02-acre park, and internal roadways.

Overall, the project would bring 2,724 people and 26 jobs to the City of Newport Beach, an increase in population but a decrease in employment (–3,135 jobs). As shown in Table 5.11-5, adding housing units to SCAG projections for the City of Newport Beach in 2035 reduces the forecast jobs-to-housing balance in 2035 from 1.91 to 1.78, a favorable impact to a jobs-to-housing balance.

Table 5.11-5
2012 Adopted RTP Population, Housing, and Employment Projections for Newport Beach, 2008–2035 (with project)

			Proposed Project			
	2008	2035	Phase 1	Phase 2	Total	2035 with Project
Population	84,200	90,300	1,489	1,235	2,724[1]	93,024
Housing	38,400	40,700	680	564	1,244	41,944
Employment	82,500	77,700	-135	-3,000	-3,135	74,565
Job Gain			*26*[2]	*0*	*26*[2]	
Job Loss			*-161*	*-3,000*	*-3,161*	
Jobs-to-housing Balance	2.15	1.91	0.02	0.02	0.01	1.78

[1] Assumes 2.19 persons per household as determined in 2010 Census for Newport Beach (Census 2012).
[2] Assumes 450 square feet per employee, per SCAG's Employment Density Study Summary Report (2001).

Although the proposed project would increase the population in the City, it is consistent with the City's General Plan and ICDP and does not exceed the housing units or resultant population growth as anticipated for this site. Additionally, since the project would be constructed on an infill site, it does not induce population growth because it would not create a need to extend the existing infrastructure.

5.11.4 Cumulative Impacts

Cumulative projects are listed for both the City of Newport Beach and the City of Irvine in Table 4-2, in Chapter 4, *Environmental Setting*, of this Draft EIR. These projects include residential, hotel, office, commercial, recreational, and open space/park developments. They are at various stages of development—some projects are complete, some are being constructed, and some have not started construction. Overall, the cumulative project list includes approximately 10,563 residential units, 463,600 square feet of retail space, 4,820,943 square feet of office space, 702 hotel rooms, 557,370 square feet of public/recreational space, and 52.12 acres of parks and open space. Environmental review is required for all of these projects so the potential impacts of each may be assessed. Project-specific mitigation measures for each cumulative project are implemented to reduce any significant impacts.

Population-to-Housing Balance

In regard to population and housing, this project, in combination with the cumulative projects listed on Table 4-1, are projected to increase the population and number of jobs in the City of Newport Beach by 14,351 units and 3,488 jobs when all projects are built out (see Table 5.11-6). This would result in a jobs-to-housing balance of approximately 1.63, which is more favorable than the existing balance of 2.15 and currently projected balance of 1.91 in 2035 because it would be less jobs rich. Cumulative impacts to population and housing would be less than significant.

Table 5.11-6
Projected Cumulative Housing, Employment, and Population Growth

	Housing Units	Non-Residential Square Footage				Employ-ment[3]	Population[3]	Jobs-Housing Ratio
		Commercial	Office	Industrial	Public			
Existing (City)[1]	**38,400**	—	—	—	—	**82,500**	**84,200**	**2.15**
Existing (Project Site)	0	0	0	438,127	0	3,161	0	0
Proposed Project	1,244	11,500	0	0	0	26	2,724	0.02
Cumulative Projects[2]	13,107	510,172	1,872,818	67,698	271,013	6,623	28,704	0.51
Subtotal	**14,351**	**521,672**	**1,872,818**	**-370,429**	**271,013**	**3,488**	**31,428**	**0.24**
Existing + Project + Cumulative Total	**52,751**	—	—	—	—	**85,988**	**115,628**	**1.63**

Sources: SCAG 2012b; SCAG 2001; Census 2012; Newport Beach 2012
[1] See Table 5.11-1 (RTP Projections)
[2] Cumulative project numbers are a summary of the information provided in Tables 4-1 and 4-2 in Chapter 4, *Environmental Setting*, of this Draft EIR.
[3] Employment and population assumptions for the proposed project and the cumulative projects is based on the following:
Population—2.19 persons per household as determined in 2010 Census for Newport Beach (Census 2012), and;
Employment—SCAG's Employment Density Study Summary Report (2001) density factors for commercial, office, industrial, and public land uses.

Affordable Housing

The City's anticipated housing needs for the 2014–2021 RHNA cycle is five units, including one very-low-, one low-, one moderate-, and two above-moderate-income units (SCAG 2012a). The City's 2011 Housing Element, based on the two previous RHNA cycles, identified the ability to accommodate up to 4,612 housing units, including the City's identified need for 1,212 very low-, low-, and moderate income units. The Airport Area was identified as having the greatest potential to accommodate the development of housing for lower-income households (Newport Beach 2011). The proposed project would provide 184 affordable housing units and would bring the City closer to reaching its RHNA goals. The project would not contribute to cumulative impacts on affordable housing.

Population Growth

Upon buildout of the proposed project, in combination with the cumulative projects listed in Tables 4-1 and 4-2, the City's housing is projected to increase by approximately 14,351 units and employment opportunities by approximately 3,488 jobs, creating a more balanced jobs-to-housing ratio for the City. The cumulative projects would provide more housing than jobs for the City, meeting existing and future demands and balancing the jobs-to-housing ratio. Since Uptown Newport is an infill project, the project would not extend infrastructure that would induce population growth, and therefore, would not combine with other related projects to contribute to a cumulative impact with respect to population growth. Cumulative impacts to population growth are less than significant.

5.11.5 Existing Regulations and Standard Conditions of Approval

Regulations

State

- California Government Code, Article 10.6, Housing Elements (Sections 65580–65589.8.)

City of Newport Beach

- City of Newport Beach Municipal Code Title 19, Subdivisions, Chapter 19.54, Inclusionary Housing
- City of Newport Beach Municipal Code Title 20, Planning and Zoning, Chapter 20.32, Density Bonus

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to population and housing that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.11.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval and adoption of the AHIP, the following impacts would be less than significant: 5.11-1.

5.11.7 Mitigation Measures

No significant impacts are identified and no mitigation measures are required.

5.11.8 Level of Significance After Mitigation

The proposed project's impacts to population and housing are less than significant.

5.12 PUBLIC SERVICES

This section of the Draft Environmental Impact Report (DEIR) addresses the potential for development of the Uptown Newport project to impact public services including: fire protection and emergency services, police protection, school services, and library services. The analysis in this section is based in part on the service provider correspondence contained in Appendix K of this DEIR. Park services are addressed in Section 5.13, *Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste, are addressed in Section 5.15, *Utilities and Service Systems*.

5.12.1 Fire Protection and Emergency Medical Services

5.12.1.1 Environmental Setting

The Newport Beach Fire Department (NBFD) is responsible for reducing loss of life and property from fire, medical, and environmental emergencies. In addition to fire suppression, NBFD also provides fire prevention and hazard reduction services. The Fire Prevention Division works in conjunction with the City's Community Development and Public Works departments to ensure that all new construction and remodels are built in compliance with local and state building and fire codes, including the provision of adequate emergency access and onsite fire protection measures.

The NBFD currently employs 148 full-time employees, including 117 fire fighters. The fire department operates five divisions: fire operations, emergency medical services (EMS), fire prevention, training and community education, and fire administration. The department divides its staff into three shifts, with approximately 39 personnel each shift, for an overall total of 117 fire suppression and EMS personnel working at the eight fire stations. Each station has one engine company. Three stations have paramedic ambulances, and two have ladder trucks. Eight paramedics serve per shift (Gamble 2011).

The NBFD's eight fire stations are strategically located throughout the City to provide prompt assistance to area residents. Station No. 7 at 20401 Acacia Street is the closest to the proposed project and would be the first station to respond to an emergency at the project site. This is a state of the art 11,350 square-foot facility and provides fire prevention and protection, hazardous materials removal and disposal, rescue and medics services. The station houses an engine. It was also designed as a training facility and includes a 48-person training room and related improvements.

Station Nos. 3 and 6 would also respond to any first alarm fire. For larger fires, Station Nos. 2, 4, and 8 would be added to the response. Fire station locations are shown on Figure 5.12-1, *Fire and Police Facilities Locations*. Average response times to the project site are 4 minutes and 52 seconds for EMS and 6 minutes 16 seconds for a structure fire.

Table 5.12-1, *Local Fire Stations-Equipment and Staffing,* summarizes the equipment and staffing at the three fire stations nearest to the project site.

Table 5.12-1
Local Fire Stations – Equipment and Staffing

Station	Location	Equipment	Daily Staffing
Station 7	20401 Acacia Street	Fire Engine	3 firefighters
Station 3	868 Santa Barbara Avenue	One Tractor Drawn Aerial Ladder Truck One Engine One Paramedic Van One Battalion Command Vehicle	10 firefighters
Station 6	1348 Irvine Avenue	one fire engine	3 firefighters

NBFD's response time goals, adopted from National Fire Protection Association (NFPA) Standard 1710, are summarized in Table 5.12-2.

Table 5.12-2
NBFD Response Time Goals

	Fire Suppression Incident		Emergency Medical Incident	
	First Arriving Engine Company	Initial Full Alarm Assignment	Basic Life Support	Advanced Life Support
Turnout Time	80 seconds	80 seconds	60 seconds	60 seconds
Travel Time[1]	240 seconds (4 minutes)	480 seconds (8 minutes)	240 seconds (4 minutes)	480 seconds (8 minutes)[2]
Total Response Time	**320 seconds (5 minutes 20 seconds)**	**560 seconds (9 minutes 20 seconds)**	**300 seconds (5 minutes)**	**540 seconds (9 minutes)**

[1] All travel time goals are maximums, i.e., 240 seconds means 240 seconds or less.
[2] Provided a first responder with basic life support capability arrives within 240 seconds.

The NBFD also regulates hazardous materials. The NBFD's goal is to protect the public health and the environment throughout the City from accidental releases and improper handling, storage, transportation, and disposal of hazardous materials through coordinated regulation, management, emergency response, enforcement, and site mitigation oversight. Hazardous materials personnel are responsible for in-house training and education and do not respond to emergencies. In case of a hazardous materials emergency, the Huntington Beach Fire Department or Orange County Fire Authority is called.

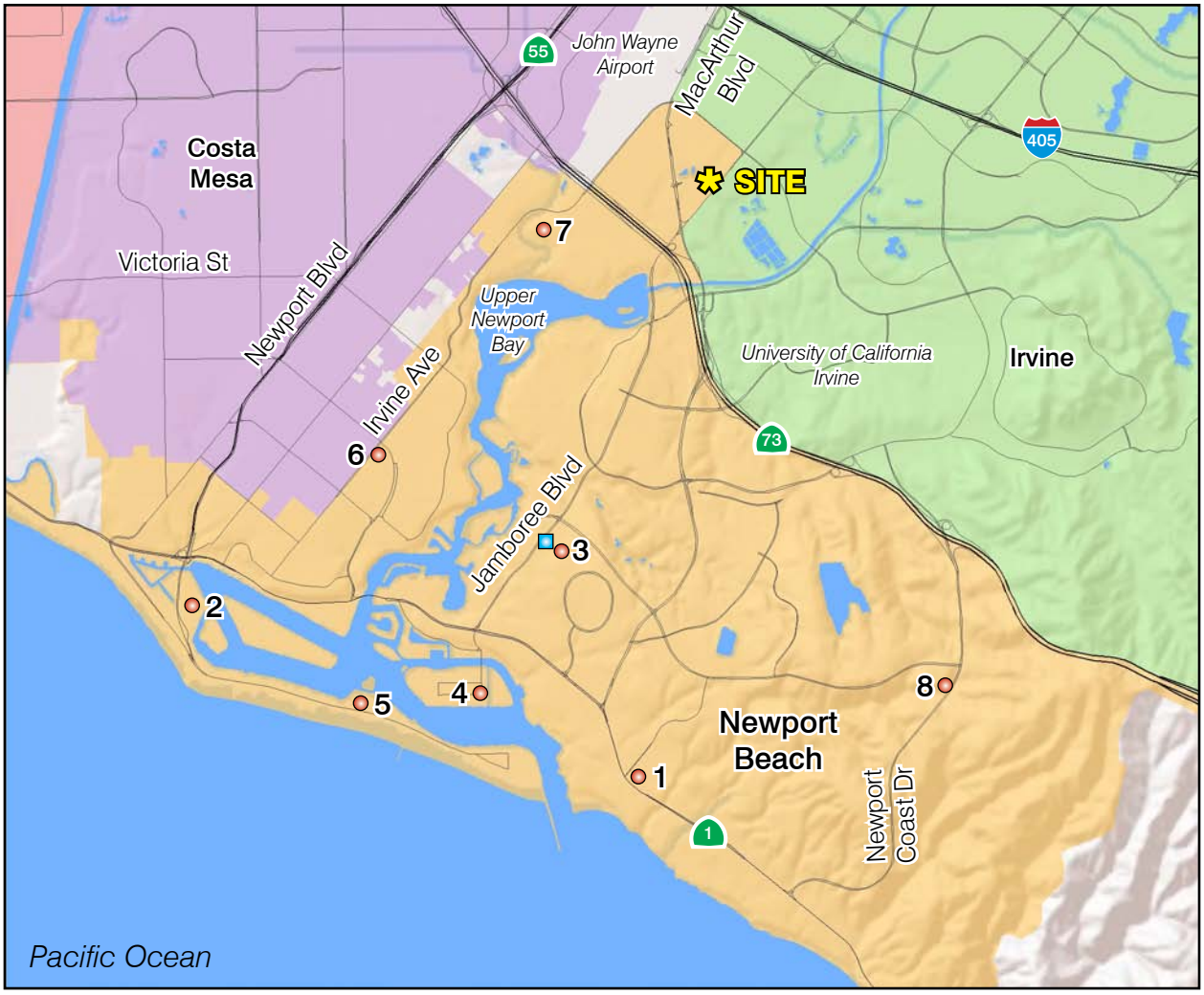
Regulatory Setting

State and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below. Laws and regulations pertaining to hazardous materials are discussed in Section 5.7, *Hazards and Hazardous Materials*.

California Fire Code

The California Fire Code (CFC) is California Code of Regulations Title 24 Part 9. The CFC is adopted once every three years by the California Building Standards Commission; the current (2010) CFC took effect January 1, 2011. As summarized below, the City of Newport Beach has adopted the CFC Code with amendments, as Title 9 of the City Municipal Code.

Fire and Police Facilities Map



Fire Station

Police Station

0 2
Scale (Miles)

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City of Newport Beach Municipal Code

The City of Newport Beach Municipal Code addresses the development impacts to fire services, as follows:

Municipal Code Section 3.12.010 states that: "…the rapid development of land in the City of Newport Beach has created a need for public improvements and facilities consisting of fire stations and fire-fighting equipment, public City libraries and public City parks, which cannot be met by the ordinary revenues of the City…. The most practical and equitable method of collecting the funds necessary to provide such public improvements is to impose an excise tax upon the construction and occupancy of residential, commercial and industrial units or buildings in the City."

Municipal Code Title 9 (Fire Code) The City of Newport Beach has adopted the 2010 California Fire Code, with amendments, as Title 9 of the City Municipal Code. Title 9 contains provisions that deal with a range of issues, including articulating fire flow requirements, the provision of automatic sprinkler systems in public buildings, emergency access, requiring an accurate occupant count in public places, and the provision of emergency power in public assembly places.

Newport Beach Fire Code Section 9.04.080 contains the following amendment to CFC Section 2704:

Hazardous Materials Chapter 2704.1.1 Maximum quantity on site

No person shall use or store any amount of extremely hazardous substances equal to or greater than the disclosable amounts as listed in Appendix A, Part 355, Title 40, of the Code of Federal Regulations in a residential zone or adjacent to property developed with residential uses. This requirement is addressed in Section 5.7, *Hazards and Hazardous Materials,* of this EIR.

5.12.1.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

FP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

5.12.1.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.12-1: THE PROPOSED PROJECT WOULD INTRODUCE NEW STRUCTURES, RESIDENTS, AND WORKERS INTO THE NEWPORT BEACH FIRE DEPARTMENT SERVICE BOUNDARIES, THEREBY ALTERING THE REQUIREMENT FOR FIRE PROTECTION FACILITIES AND PERSONNEL. [THRESHOLD FP-1]

Impact Analysis:

Phase 1

Phase 1 of the proposed Uptown Newport project would develop 680 residential units and 11,500 square feet of retail uses. At completion, Phase 1 is estimated to house 1,489 residents, as shown below in Table 5.12-3. In addition, service and retail uses are estimated to generate one employee per 450 square feet of retail or service space; thus, operation of the proposed 11,500 square feet of neighborhood retail uses in Phase 1 is estimated to generate 26 employees. This may result in increased demand for service from the NBFD.

Table 5.12-3
Residents Generated by Project Phase

Phase	Residential Units	Persons per Household[1]	Residents
1	680	2.19	1,489
2	564	2.19	1,235
Total	**1,244**	**2.19**	**2,724**

[1] Source: US Census Bureau 2012.

Development of Phase 1 would also involve the closure and demolition of the existing Half Dome building onsite at 4311 Jamboree Road. Approximately 161 employees currently work in the Half Dome building; the building is used for office, light industrial, storage, and cafe services. Removal of the Half Dome building and the industrial and commercial uses in the building would cause some reduction of demands for fire protection and emergency medical services. However, the reduction in such demands is expected to be smaller than the increase in demands for services resulting from development of 680 residential units in Phase 1 of the project. Therefore, development of Phase 1 would have some net impact on demands for NBFD services.

Firefighting Resources and Response Times

The fire department's estimated response time for the site is currently 4 minutes and 52 seconds for EMS calls and 6 minutes and 16 seconds for structure fires. The City of Newport Beach has adopted response goals from NFPA 1710, shown in Table 5.12-1. Response times should be 5 minutes or less for basic life support EMS calls and 5 minutes 20 seconds or less for the first-arriving engine for fire suppression calls. The NBFD indicated that no additional fire equipment or personnel would be needed to maintain the necessary level of service to Phase 1 of the project site.

The entire proposed project would be subject to the City of Newport Beach Property Development Tax, which funds municipal facilities required to serve new developments, including fire stations, libraries, and parks.

Emergency Access

As shown in the *Phase 1 Circulation Plan* (see Figure 3-8), the project site would be accessed by two intersections on Jamboree Road: the existing signalized entry opposite Fairchild Road and an unsignalized intersection north of the Fairchild Road intersection. Employee access to the TowerJazz parking area would be from the northernmost Jamboree Road intersection and the existing access

easement from Birch Street. Emergency vehicle access would also be provided via the Koll property to the west. Roadway widths, turning radii, and turn-around dimensions would be designed to accommodate truck movements and fire equipment.

The proposed road, driveway, and emergency access driveway would provide emergency access to all proposed buildings onsite, conforming to CFC Section 503, as incorporated into the City's Municipal Code Section 9.04.050, and in accordance with NBFD Guidelines C.01, including the following:

- Fire apparatus road shall extend to within 150 feet of all the facility and all portions of the exterior walls of the first story of the building.
- Minimum width of a fire access roadway shall be 20 feet, no vehicle parking allowed.
- The width shall be increased to 26 feet within 30 feet of a hydrant, no vehicle parking allowed.
- Parking on one side is permitted on 28-foot wide street.
- Parking on two sides permitted on 36-foot wide street.
- No parking is permitted on streets narrower than 28 feet in width.
- Access roads shall have an unobstructed vertical clearance of not less than 1 foot 6 inches.

Fire Flow

Fire hydrant spacing for a project is based on required fire flow, which in turn is based on maximum building size and construction type. Two scenarios for maximum building size are being considered for the project: a Type I high-rise of 300,000 square feet; or a Type V high-rise of 75,000 square feet in which the building is constructed on a concrete podium parking structure. The required fire flow is for the larger building size, and is 6,000 gallons per minute (gpm). The City would allow a reduction of 50 percent in required fire flow because all buildings in the project would be equipped with automatic sprinklers; thus, the required fire flow for the project would be 3,000 gpm. Fire hydrant spacing of 400 feet is needed to achieve that fire flow (CFC, 2010).

Phase 2

Phase 2 of the project would develop 564 residential units for a project total of 1,244 units; Phase 2 is forecast to house 1,235 persons at buildout. Before Phase 2 of the project could be built, the existing TowerJazz facility would be closed and demolished. The TowerJazz facility is a semiconductor manufacturing facility of 311,452 square feet building area and employs approximately 3,000 people. Potential hazardous conditions associated with this industrial use and related hazardous material use and storage would be eliminated upon development of Phase 2 (see also Section 5.7, *Hazards and Hazardous Materials*).

Firefighting Resources and Response Times

Development of Phase 2 of the project would not adversely affect NBFD response times to the project site. Development would not result in the need to build new or expanded fire stations, or obtain additional staff or equipment (Gamble 2011).

Emergency Access

As shown in Figure 3-9, *Phase 2 Circulation Plan,* at project buildout, the internal roadway system would include a connection to Birch Street via the existing access easement to Von Karman Avenue. The two intersections at Jamboree Road would be maintained, as well as the emergency vehicle access via the Koll property. The proposed road and driveway would provide emergency access to all proposed buildings onsite, and conform to the CFC Section 503 requirements and NPFD Guideline C.01 as described under Phase 1.

Fire Flow

Fire flow requirements for Phase 2 are the same as detailed above for Phase 1.

5.12.1.4 Cumulative Impacts

The NBFD service area, that is, the City of Newport Beach, is the area over which cumulative impacts are considered. Substantial additional development is anticipated in the City. Growth estimates for the City from the Southern California Association of Governments (SCAG) are shown below in Table 5.12-4. Between 2008 and 2035, the City's population is forecast to increase about 7 percent, and the number of households in the City is forecast to increase six percent.

Table 5.12-4
Growth Estimates for City of Newport Beach

	2008	*2035*	*Increase, 2008–2035*	*Percent Increase, 2010–2035*
Population	84,200	90,300	6,100	7.2%
Households	38,400	40,700	2,300	6.0%
Employment	82,500	77,700	-4800	-5.8%

Source: SCAG 2012b.

Additional development in the City would generate increased demand for fire suppression, EMS, and other NBFD services, including fire prevention and community education. The NBFD does not use population projects to determine projected needs. The Department's service goals are based on accepted service levels such as the response times previous detailed. As part of the operating budget, the NBFD has an equipment replacement program which guarantees replacement of all its apparatus needs, such as vehicles.

The NBFD staffing levels have historically been driven not by population as much as by location. The General Plan EIR noted that an increase in density by both infill and conversion of low rise properties to mid and high rise would necessitate the addition of a ladder truck company to the Santa Ana Height fire station. This station, Station No. 7, has been completed and includes the ladder company.

As with the proposed project, other developments in the City would be required to pay City tax to finance public facilities including fire stations and firefighting equipment.

5.12.1.5 Existing Regulations and Standard Conditions of Approval

Regulations

- National Fire Protection Association 1710: Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments
- California Building Code (California Code of Regulations, Title 24, Part 2)
- California Fire Code (CFC; California Code of Regulations, Title 24, Part 9). Several City conditions of approval for the proposed project – listed above in Section 5.12.1 – are based on CFC requirements.
- City of Newport Beach Municipal Code: Title 9, Fire Code

City of Newport Beach Standard Conditions of Approval

The following City-adopted standard operating conditions of approval would apply to the proposed project:

- Standards of conditions would be prepared for the proposed project at subsequent approval phases, starting with the subsequent tentative tract map and the review and approval of Site Development Review for the construction of any building structure, prior to the issuance of a grading or building permit.
- The applicant is required to obtain all applicable permits from the City Building and Fire Departments. The construction plans must comply with the most recent, City-adopted version of the California Building Code. The construction plans must meet all applicable State Disabilities Access requirements. Approval from the Orange County Health Department is required prior to the issuance of a building permit.

5.12.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: 5.12-1.

5.12.1.7 Mitigation Measures

No mitigation measures are necessary

5.12.1.8 Level of Significance After Mitigation

No significant unavoidable adverse impacts relating to fire protection and services remain.

5.12.2 Police Protection

5.12.2.1 Environmental Setting

The Newport Beach Police Department (NBPD) provides police service to the proposed project site, including crime prevention and investigation, community awareness programs, and traffic control. Police headquarters are at 870 Santa Barbara Drive (see Figure 5.12-1).

According to the EIR prepared for the City's General Plan and the service questionnaire returned by NBPD, the NBPD employs 280 personnel, including a chief, 3 captains, 7 lieutenants, 22 sergeants, 137 sworn officers, 85 civilian personnel, and 53 seasonal and part-time personnel. NBPD has four divisions—patrol/traffic, support services, detectives, and chief of police (Hartford 2012).

With a population of 85,186 residents (US Census 2012), the ratio of officers to residents is currently 1.61 officers per 1,000 residents. On average, 2,000 emergency calls are received each month, with an average answer time of five seconds. Approximately 60,000 calls are dispatched every year, and the average police response time to emergency calls is just under four minutes (Newport Beach 2006; Hartford 2012).

5.12.2.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

PP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

5.12.2.3 Environmental Impacts

IMPACT 5.12-2: THE PROPOSED PROJECT WOULD INTRODUCE NEW STRUCTURES, RESIDENTS, AND WORKERS INTO THE NEWPORT BEACH POLICE DEPARTMENT SERVICE BOUNDARIES, THEREBY INCREASING THE REQUIREMENT FOR POLICE PROTECTION FACILITIES AND PERSONNEL. [THRESHOLD PP-1]

Impact Analysis:

Phase 1

Phase 1 of the proposed Uptown Newport project would develop 680 residential units and 11,500 square feet of retail uses. At completion, Phase 1 is estimated to house 1,489 residents, as shown in Table 5.12-2. In addition, service and retail uses are estimated to generate one employee per 450 square feet of retail or service space. Thus, operation of the proposed 11,500 square feet of neighborhood retail uses in Phase 1 is estimated to generate 26 employees. About 161 employees currently work in the existing Half Dome building at 4311 Jamboree. The Half Dome building would be closed and demolished before development of Phase 1 of the proposed project; thus, the project would cause a net decrease in employment onsite of 135 jobs.

The average response to emergency calls in the City is under four minutes. The City currently has a ratio of 1.61 officers to 1,000 residents. Although there is no current law enforcement staffing standards, the General Plan EIR notes that the ratio of 1.7 officer per 1,000 residents allows the NBPD to meet the needs of the City's permanent and transient population. The existing land uses on the project site are currently served by the NBPD, and the replacement of the existing land uses by residential land uses would not adversely affect the current deployment of police services (Hartford 2012). NBPD has suggested the following onsite improvements that have been incorporated as conditions of approval for this proposed project.

- Emergency vehicle access and parking shall be provided in front of the main entrance of each building.
- All public areas shall have postings that identify them as being enforced by the Newport Beach Police Department to discourage animal and alcohol violations (per City of Newport Beach Municipal Code Sections 7.16, Animals at Large, and 20.48.030, Alcohol Sales).
- Emergency personnel shall be given access to secured tenant-occupied buildings during times of emergency.

Phase 2

Phase 2 of the proposed project includes the development of the remaining 564 residential units, resulting in a total of 1,244 units and a population of 2,724. Development of Phase 2 of the project would involve closure and demolition of the existing TowerJazz semiconductor manufacturing facility of 311,452 square feet building area and employs approximately 3,000 people. Removal of the TowerJazz facility would eliminate the need for police services for this industrial use which operates 24 hours/day 7 days per week. The addition of 1,235 residents onsite by development of Phase 2 would create a need for an estimated additional two police officers based on the existing ratio of 1.61 officers to 1,000 residents; however, this estimate does not account for reduction in demand for police services due to removal of the TowerJazz facility.

5.12.2.4 Cumulative Impacts

As shown in Table 5.12-3, the City's population is forecast to increase nearly 7.2 percent, and the number of households in the City is forecast to increase 6 percent between 2008 and 2035. This increases the demand for police protection services within the NBPD service area. Future projects, however, would be subject to project-specific environmental review.

5.12.2.5 Existing Regulations and Standard Conditions of Approval

Regulations

There are no regulations that apply to police services in the City of Newport Beach.

City of Newport Beach Standard Conditions of Approval

City of Newport Beach conditions of approval for the proposed project respecting police services are listed above under Impact 5.12.2.

5.12.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: 5.12-2.

5.12.2.7 Mitigation Measures

Upon the implementation of regulations and standard conditions of approval, no significant impacts to police services have been identified. Therefore, mitigation measures are not required.

5.12.2.8 Level of Significance After Mitigation

No mitigation measures were identified. Impacts to police services are less than significant.

5.12.3 School Services

This section provides an assessment of the existing school services and how the proposed project would affect these services. It is based, in part, on the following technical study included as Appendix L to this DEIR:

- *School Impacts and Mitigation Report*, Jeanette C. Justus Associates, January 2012.

5.12.3.1 Environmental Setting

The project site is within the boundaries of the Santa Ana Unified School District (SAUSD) and close to the boundaries and schools of the Newport Mesa Unified School District (NMUSD) (see Figure 5.12-2, *School Attendance Area Boundaries*).

Santa Ana Unified School District

SAUSD covers nearly 24 square miles and currently has 55,497 students in grades K–12 (2011–2012 academic year), with a total capacity of 55,844 students. Table 5.12-5 indicates that SAUSD is near capacity for all grade levels and is over capacity for K–6 grade levels.

Table 5.12-5
Santa Ana Unified School District Overall Capacity (2011–2012)

School Grade Levels	Total Capacity	Enrollment	Available Capacity
Elementary (K–6)	29,360	31,876	–2,516
Intermediate (7–8)	8,663	8,353	310
High (9–12)	17,844	15,268	2,576
District Total	**55,844**	**55,497**	**347**

Source: Jeannette C Justus Associates 2012

The SAUSD schools serving the project area are listed in Table 5.12-6 and shown in Figure 5.12-2. As indicated in Table 5.12-6, James Monroe Elementary and Century High Schools are close to capacity and McFadden Intermediate School is over capacity by 455 students.

School Attendance Area Boundaries

Santa Ana Unified School District

James Monroe Elementary Attendance Boundary

McFadden Intermediate Attendance Boundary

Century High School Attendance Boundary

Newport-Mesa Unified School District

Eastbluff Elementary School Attendance Boundary

Corona Del Mar High School Attendance Boundary

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Scale (Miles)

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Table 5.12-6
Santa Ana Unified School District Schools near Project Site (2011–2012)

School Name	Distance to Project Site (miles)	Current Permanent Capacity	Enrollment	Available Capacity
James Monroe Elementary School	5.0	500	472	28
McFadden Intermediate	5.7	960	1,415	–455
Century High School	6.1	2,030	1,999	31

Source: Jeannette C. Justus Associates 2012

Newport Mesa Unified School District

NMUSD has a current enrollment of 21,803 students (2011–2012 academic year), with a total capacity of 23,839 students. Table 5.12-7 provides the districtwide capacities and enrollments for the 2010–2011 academic year. Overall, NMUSD has available capacity in both elementary and secondary grade levels.

Table 5.12-7
Newport Mesa Unified School District Overall Capacity (2011–2012)

School Grade Levels	Total Capacity	Enrollment	Available Capacity
Elementary (K–6)	12,478	11,528	950
Secondary (7–12)	11,361	10,275	1,086
District Total	**23,839**	**21,803**	**2,036**

Source: Jeannette c. Justus Associates 2012

The two schools in NMUSD nearest to the project site are Eastbluff Elementary School, with no available capacity, and Corona Del Mar High School, with an available capacity of 388. The current enrollment and net capacities of these schools are given in Table 5.12-8.

Table 5.12-8
Newport Mesa Unified School District Schools near Project Site (2011–2012)

School Name	Distance to Project Site (miles)	Net School Capacity	Enrollment	Available Capacity
Eastbluff Elementary	1.9	361	372	-11
Corona Del Mar High	2.0	2,828	2,440	388

Source: Jeannette C. Justus Associates 2012

Regulatory Setting

State regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

State

SAUSD and NMUSD are under the state government's jurisdiction, subject to California Education Code regulations, and under the governance of the State Board of Education. School capital facility funds come from state funding, state bonds, local general obligation bonds, developer fees, surplus property sale proceeds, and School Facility Improvement and Community Facilities Districts (CFDs). Limited or no funding is available for school facilities from the federal government.

Assembly Bill 2926 and Senate Bill 50

To assist in providing school facilities to serve students generated by new development projects, the State passed Assembly Bill (AB) 2926 in 1986. This bill allows school districts to collect impact fees from developers of new residential and commercial/industrial building space. Development impact fees are also referenced in the 1987 Leroy Greene Lease-Purchase Act, which requires school districts to contribute a matching share of costs for construction, modernization, and reconstruction projects.

Senate Bill (SB) 50, which passed in 1998, provides a comprehensive school facilities financing and reform program, and enables a statewide bond issue to be placed on the ballot. The provisions of SB 50 allow the state to offer funding to school districts to acquire school sites, construct new school facilities, and modernize existing school facilities. SB 50 also establishes a process for determining the amount of fees developers may be charged to mitigate the impact of development on school facilities resulting from increased enrollment. Under this legislation, a school district could charge fees above the statutory cap only under specified conditions, and then only up to the amount of funds that the district would be eligible to receive from the state. According to Section 65996 of the California Government Code, development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation."

SB 50 establishes three levels of developer fees that may be imposed upon new development by the governing board of a school district depending upon certain conditions within a district.

- **Level 1:** Level 1 fees are the base statutory fees. These amounts are the maximum that can be legally imposed upon new construction projects by a school district unless the district qualifies for a higher level of funding.

  Pursuant to Section 65995 of the California Government Code, as of January 2008, the statutory maximum Level 1 school fees that may be levied by a school district on new development is a maximum of $2.97 per assessable square foot of residential construction and a maximum of $0.47 per square foot of enclosed and covered space for commercial/industrial development. These rates are established by the State Allocation Board, and may be increased to adjust for inflation based upon a statewide cost index for Class B construction. To implement Level 1 fees, the governing board of a school district must adopt a nexus study linking development impacts and the need for construction of new facilities. Although not standard, such studies are frequently referred to as Developer Fee Justification Study.

  NMUSD currently implements a Level 1 fee of $1.84 per square foot of new residential development. Starting on August 24, 2012, SAUSD began implementing a Level 1 fee of $3.20 per square foot of new residential development and $0.51 per square foot of commercial development.

- **Level 2:** Level 2 fees allow the school district to impose developer fees above the statutory level, up to 50 percent of new school construction costs. To implement Level 2 fees, the governing board of the school district must adopt a School Facilities Needs Analysis (SFNA) and meet other prerequisites in accordance with Section 65995.6 of the California Government Code.

The purpose of an SFNA is to determine the need for new school facilities attributable to growth from new residential development (California Government Code § 65995.6). An SFNA documents that the district has met prerequisite eligibility tests and calculates the fee per square foot of new development. If the school district is eligible for state new construction funding, the state will match the Level 2 fees if funds are available. According to the Office of Public School Construction, although they are currently not being released for funding school facilities, state funds for new school construction are available from existing bond measures.

- **Level 3**: Level 3 fees apply if the state runs out of bond funds, allowing the school district to impose 100 percent of the cost of the school facility or mitigation minus any local dedicated school monies. SB 1016 suspended the ability of school districts to levy Level III fees, effective June 25, 2012.

Local

Santa Ana Unified School District

In accordance with SB 50, the construction of new schools requires a school district to match state funds. The local match is typically provided by such funds as developer fees, local general obligation bonds, and/or Mello-Roos CFD (special taxes that can be levied on property owners of newly constructed homes within a CFD). SAUSD participates in the state funding program actively and also received School Facility Program funding under the modernization, overcrowding relief, and critically overcrowded grant categories since 2003. At the time of writing, SAUSD has no eligibility for funding in the state new construction program at the K–8 level. It should be noted that state funding eligibility varies with projected enrollment growth compared to the number of existing seats in the district.

In 2008, residents within the boundaries of the SAUSD passed local Measure G authorizing the sale of $200 million in general obligation bonds. Measure G funds are used by SAUSD to repair and construct classrooms and facilities. It is the second successful general obligation bond in SAUSD. Measure C was passed by the SAUSD voters in November 1999 and authorized the sale of $145 million in general obligation bonds. Measure C funds were used by the SAUSD for modernization and new construction projects district-wide.

Newport Mesa Unified School District

NMUSD pursues the opportunity for facilities funding whenever it is eligible in the state funding program. In June 2010, NMUSD was awarded $1,431,274 for modernization and new construction at Costa Mesa High School. However, due to the current state budget crisis, funding for the Costa Mesa High School projects has not been released. At the time of writing, NMUSD has no eligibility for funding in the state new construction program at the K–6 level.

In November 2005, residents within the boundaries of the NMUSD passed local Measure F authorizing the sale of $282 million in general obligation bonds. Measure F is the second successful general obligation bond in the district. Measure A was passed by the NMUSD voters in June 2000 and authorized the sale of $110 million in general obligation bonds. Measure A funds are used by the district to modernize every school campus throughout the district and to expand school capacity district-wide.

5.12.3.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

SS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for school services.

5.12.3.3 Environmental Impacts

IMPACT 5.12-3: THE PROPOSED PROJECT WOULD GENERATE 341 NEW STUDENTS WHO WOULD IMPACT THE SCHOOL ENROLLMENT CAPACITIES OF MONROE ELEMENTARY, MCFADDEN INTERMEDIATE, AND CENTURY HIGH SCHOOLS IN THE SANTA ANA UNIFIED SCHOOL DISTRICT. [THRESHOLD SS-1]

Impact Analysis:

Student Generation Rates

SAUSD has not experienced a significant amount of new development in the last five years. The available published student generation rate as provided in the 2011 SAUSD School Facilities Needs Analysis (SFNA) is based on the student generation rate (SGR) from Irvine Unified School District's 2011 SFNA. This option of using SGR from a neighboring district is allowed by California Government Code Section 65995. Unlike SAUSD, IUSD experienced a significant amount of growth in the category of attached housing throughout the City of Irvine. The density of the typical attached housing constructed in the City of Irvine and the IUSD is significantly lower than the density of the proposed project. The vast majority of attached housing in IUSD is under 20 dwelling units per acre. For the purposes of analyzing school impacts, Jeanette C. Justus Associates obtained from IUSD the number of students residing in projects with high density (45–55 dwelling units per acre) and in similar locations. The specialized student generation rates for the proposed project are described below.

Based on the data collected from IUSD, Jeanette C. Justus Associates developed the student generation rate for the proposed project. The sample of 2,422 dwelling units included existing residential projects in the John Wayne Airport Area and the Irvine Spectrum area that are similar to those anticipated for the proposed project. The projects in the sample were considered similar due to the high density and amenities geared toward young professionals rather than families with children. It was found that 166 K–12 students residing in the sample areas attend IUSD schools. The resulting rates are provided in Table 5.12-9.

Table 5.12-9
Student Generation Rates for Proposed Project

School Level	*Rate Per Dwelling Unit*
Elementary School (K–6)	0.040
Middle School (7–8)	0.012
High School (9–12)	0.017
Total (K–12)	0.069

Project Student Generation

At project buildout, the proposed project may develop up to 1,244 residential units, 11,500 square feet of retail space, and 2.05 acres of park space. Based on the student generation rates in Table 5.12-9, the proposed project is anticipated to yield approximately 87 K–12 students—50 elementary, 12 middle, and 22 high school students (see Table 5.12-10).

Table 5.12-10
Estimated Student Population

	Proposed Residential Units	Student Generation			
		Grades K–6	Grades 7–8	Grades 9–12	Total
Generation Rate		*0.040*	*0.012*	*0.017*	*0.069*
Development Phase 1	680	27	8	12	47
Development Phase 2	564	23	7	10	40
Totals	**1,244**	**50**	**15**	**22**	**87**

Source: Jeannette C. Justus and Associates 2012

Phase 1

As shown in Table 5.12-10, Phase 1 of the proposed project would generate 47 students in grades K–12 that would need to be accommodated either at existing or new schools. The need for additional facility space would be different for each type of school.

Elementary School

For Phase 1, the proposed project would generate 27 elementary students (see Table 5.12-10). The project site is within the school boundaries of James Monroe Elementary School. Based on current enrollment figures and available capacity (see Table 5.12-6), the elementary school would be able to accommodate the additional 27 students.

Middle School

As shown in Table 5.12-10, the proposed project would generate 8 middle school students under Phase 1. Students from the project would attend McFadden Intermediate School, which currently has no capacity to accommodate new students (see Table 5.12-6). One additional classroom could be provided at McFadden Intermediate School. Payment of mandated school fees as required by Government Code Section 65995 serves to fully mitigate project impacts on schools.

High School

For Phase 1, the proposed project would generate 12 high school students (see Table 5.12-10). Students from the proposed project would attend Century High School, which currently has 31 available seats and is able to serve the proposed project (see Table 5.12-6).

Phase 2

As shown in Table 5.12-10, Phase 2 of the project would generate approximately 40 students: 23 elementary, 7 middle school, and 10 high school students.

Elementary School

At buildout, the proposed project would generate 50 elementary students (including 27 Phase 1 students), as shown in Table 5.12-10. James Monroe Elementary school would not have capacity to accommodate these additional students (see Table 5.12-6). One or two additional classroom facilities would be required and could be provided at James Monroe Elementary School to accommodate students associated with the proposed project. Payment of mandated school fees as required by Government Code Section 65995 serves to fully mitigate project impacts on schools.

Middle School

Phase 2 of the proposed project would generate an additional 7 middle school students, resulting in a total of 15 at full buildout (see Table 5.12-10). As with Phase 1, an additional classroom would be needed at McFadden Intermediate School, which is currently over capacity by 455 students (see Table 5.12-6). The classroom proposed for the Phase 1 students would be used to serve the total student population of 15 generated by the proposed project. Payment of mandated school fees as required by Government Code Section 65995 serves to fully mitigate project impacts on schools.

High School

During Phase 2, the proposed project would generate an additional 10 high school students, resulting in a buildout population of 22 (see Table 5.12-10). Students from the proposed project would attend Century High School, which currently has 31 available seats and is able to serve the proposed project (see Table 5.12-6).

School Financing and Alternative Options

Financing of Expanded Facilities through SB 50

Based on data about available capacity, the SAUSD would not require funds to construct additional capacity to serve the project-generated students at the high school level. At the elementary school level, based on the current enrollment data, one or two additional portable or permanent classrooms may be required to accommodate project students. At the middle school level, one additional classroom would be required.

However, SAUSD recently instituted a Level 1 fee program, which became effective on August 24, 2012.,The proposed project would be subject to payment of the applicable Level 1 developer fees. Payment of the adopted developer fees by the applicant would fully and completely mitigate all school impacts, in accordance with Section 65995(h) of the California Government Code. Additionally, new development on the project site would be subject to taxes from both general obligation bond measures approved by the SAUSD. The project would also be required to comply with Conditions 1 and 2, as outlined in Section 5.12.3.5, *Existing Regulations and Standard Conditions of Approval*. Condition 1 requires the payment of state-mandated school fees. Condition 2 identifies that the proposed project would be subject to Measure G and Measure C general obligation taxes as applied to other properties within the SAUSD.

Alternative School Facility Options

Neighborhood School in John Wayne Airport Area

Along with other John Wayne Airport Area developers, SAUSD has informed the project applicant that they are considering the possibility of alternate facility and finance programs and potentially a mitigation agreement that is mutually agreeable for all affected parties. The SAUSD seeks to construct a neighborhood school in the John Wayne Airport Area. If a new school were constructed, then developer fees would contribute to the construction of the school. At the time of this writing, it is unknown whether a school site could be secured and a mitigation and financing agreement with all area developers be reached.

Expansion of NMUSD Boundaries

The project applicant may choose to propose to modify the school district boundaries so that the entire project site would be within the boundaries of the neighboring NMUSD. This would ensure that project-generated students attend school facilities nearest to their homes and busing or other transportation costs and impacts are minimized. In the absence of a neighborhood school within SAUSD, such territory transfer would enable project students to maximize their quality of life by being better able to take advantage of school-related activities such as after-school programs and athletic clubs. Living near the families of their children's classmates would allow project residents with children to build stronger communal ties. The transfer of school district boundaries would be subject to concurrence of the Orange County Committee on School District Organization and the State Board of Education. The impacts and reorganization would differ between elementary and middle school students.

Elementary School

At buildout, the proposed project would generate approximately 50 elementary school students (see Table 5.12-10). The proposed project site is near Eastbluff Elementary School (see Table 5.12-8). Based on current enrollment figures, up to four additional classroom facilities would be required and could be provided to accommodate students associated with the proposed project. The project applicant would mitigate school impacts by payment of statutory school fees to fully mitigate project impacts on schools. Additionally, the proposed project would be subject to Measure F and Measure A general obligation taxes as applied to other properties within the NMUSD.

Secondary School

At buildout, the proposed project would generate 37 secondary school students (grades 7–12), as shown in Table 5.12-10. Students from the project would attend Corona Del Mar High School, which currently has 317 available seats (see Table 5.12-7) and would be able to serve the proposed project.

5.12.3.4 Cumulative Impacts

Cumulative impacts to school services would occur when the proposed project, in combination with other recent, current, and proposed residential projects in the area, causes a substantial increase in the student population. The cumulative projects in the project area are listed on Table 4-3, in Chapter 4, *Environmental Setting*, of this Draft EIR. Student generation for cumulative projects is estimated below in Table 5.12-11. No cumulative projects including residential uses, which would therefore generate students, were identified within SAUSD boundaries. Eight cumulative projects were identified within NMUSD boundaries; five of those projects contain residential uses and would thus generate students. Student generation within the NMUSD is calculated from estimated student generation for the proposed

project in a service letter response by Ara Zareczny, NMUSD facilities analyst, dated February 13, 2012. NMUSD student generation rates per residential unit are 0.045 for elementary schools (K-6), 0.016 for middle schools (7-8), and 0.019 for high schools (9-12). As shown below in Table 5.12-11, cumulative projects would generate about 537 students in the Newport-Mesa Unified School District. As listed above in Table 5.12-7, overall remaining capacity in NMUSD schools as of the 2011-2012 school year was 950 for elementary schools (K-6) and 1,086 at secondary schools (7-12), for a total of 2,036 seats. The majority of the related projects would not generate students within the Eastbluff Elementary School boundary for which remaining capacity is limited. As of 2012, there was adequate remaining capacity within NMUSD schools to accommodate students generated by cumulative projects in addition to the project-related student generation projects. Each project would be required to pay school impact fees pursuant to SB 50; payment of such fees is considered full mitigation for impacts to public school facilities. The increase in school service demand due to the proposed Uptown Newport project would not combine with future demand to result in cumulatively considerable impacts.

Table 5.12-11
Student Generation by Cumulative Projects

No.	Project Name Project Location	Proposed Residential Land Use(s)	Student Generation, students per DU				Schools: Elementary/ Middle/ High
			Elementary (K-6): 0.045	Middle (7-8): 0.016	High (9-12): 0.019	Total: 0.080	
City of Newport Beach / Newport-Mesa Unified School District							
1	Newport Beach County Club 1600 & 1602 E. Coast Highway[1]	5 Residential DUs	0.2	0.1	0.1	0.4	Lincoln ES/ Corona Del Mar HS/ Corona Del Mar HS
2	Mariner's Medical Arts 1901 W. Westcliff Drive	None	0.0	0.0	0.0	0.0	Not applicable
3	Banning Ranch 4520 W. Coast Highway	1,375 Residential DUs	61.9	22.0	26.1	110.0	Newport Heights ES/ Ensign MS/ Newport Harbor HS
4	Sunset Ridge Park 4850 W. Coast Highway	None	0.0	0.0	0.0	0.0	Not applicable
5	Marina Park 1700 Balboa Boulevard	None	0.0	0.0	0.0	0.0	Not applicable
6	Koll Center 4343 Von Karman Avenue	260 Residential DUs	11.7	4.2	4.9	20.8	Eastbluff ES/ Corona Del Mar HS/ Corona Del Mar HS
7	AERIE 201 Carnation Avenue[1]	6-Unit Condominium with Subterranean Parking	0.3	0.1	0.1	0.5	Harbor View ES/ Corona Del Mar HS/ Corona Del Mar HS
8	Newport Coast Planned Community Newport Coast Drive	3,180 Single-family DUs 1,298Condominiums/ Townhomes 582 Multifamily DUs	227.7	81.0	96.1	404.8	Newport Coast ES Corona Del Mar HS/ Corona Del Mar HS

Table 5.12-11
Student Generation by Cumulative Projects

No.	Project Name Project Location	Proposed Residential Land Use(s)	Student Generation, students per DU				Schools: Elementary/ Middle/ High
			Elementary (K-6): 0.045	Middle (7-8): 0.016	High (9-12): 0.019	Total: 0.080	
Subtotal, Newport-Mesa Unified School District			**301.8**	**107.3**	**127.4**	**536.5**	
City of Irvine / Santa Ana Unified School District							
9	Element Hotel 17662 Armstrong Avenue	None	0.0	0.0	0.0	0.0	Not applicable
Total			**301.8**	**107.3**	**127.4**	**536.5**	

Source: City of Newport Beach, City of Irvine.
Notes: DUs = dwelling units; SF = square feet
[1] Project does not have a net increase in traffic.

5.12.3.5 Existing Regulations and Standard Conditions of Approval

Regulations

State

- Senate Bill 50

Santa Ana Unified School District Conditions

- **Condition 1:** Pursuant to Section 65995 of the California Government Code, the applicant shall pay developer fees to the Santa Ana Unified School District at the time building permits are issued; payment of the adopted fees would provide full and complete mitigation of school impacts.

- **Condition 2:** New development within the project site shall be subject to the same General Obligation bond tax rate already applied to other properties within the Santa Ana Unified School District for Measure G (approved in 2008) and Measure C (approved in 1999) based upon assessed value of the residential and commercial uses.

Newport Mesa Unified School District Conditions (applies only if district is expanded)

- **Condition 1:** Pursuant to Section 65995 of the California Government Code, the Applicant shall pay developer fees to the Newport Mesa Unified School District at the time building permits are issued; payment of the adopted fees would provide full and complete mitigation of school impacts.

- **Condition 2:** New development within the project site shall be subject to the same general obligation bond tax rate as already applied to other properties within the Newport Mesa Unified School District for Measure F (approved in 2005) and Measure A (approved in 2000) based upon assessed value of the residential and commercial uses.

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to schools that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.12.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.12-3.

5.12.3.7 Mitigation Measures

No potentially significant impacts to school services have been identified and no mitigation measures are required.

5.12.3.8 Level of Significance After Mitigation

No significant unavoidable adverse impacts relating to school services would occur.

5.12.4 Library Services

5.12.4.1 Environmental Setting

The Newport Beach Public Library (NBPL) provides library services to the proposed project site with four branches and a concierge service building where patrons can drop off and pick up books on hold and search the library catalog. Services at branches include Wifi, printing, interlibrary loans, home-bound service, computer training classes, and book clubs for children, teens, and adults. Branch locations are provided in Table 5.12-12.

Table 5.12-12
Newport Beach Public Libraries

Branch	*Address*
Central Library	1000 Avocado Ave. Newport Beach, CA 92660
Mariners Branch	1300 Irvine Ave. Newport Beach, CA 92660
Balboa Branch	100 East Balboa Blvd. Balboa, CA 92661
Corona Del Mar Branch	420 Marigold Ave. Corona Del Mar, CA 92625
Newport Coast Community Center (concierge service)	6401 San Joaquin Hills Rd. Newport Coast, CA 92657

The Central Library and Mariners Branch are closest to the project site and are most likely to serve future residents of Uptown Newport. The Mariner's Branch is currently at maximum capacity. A 2,000-square-foot expansion of the Central Library is under construction as part of the Civic Center Project; the Central Library will have facilities adequate for its service area upon completion of the expansion (Kelly 2011).

Regulatory Setting

Local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

City of Newport Beach Municipal Code

The City of Newport Beach Municipal Code addresses library facilities and services, as follows:

Municipal Code Title 3 (Revenue and Finance), Chapter 3.12 (Property Development Tax), Section 3.12.010 (Policy) 3.12.010 states that: "…the rapid development of land in the City of Newport Beach has created a need for public improvements and facilities consisting of fire stations and fire-fighting equipment, public City libraries and public City parks, which cannot be met by the ordinary revenues of the City. The need for such improvements results directly from the increase in density in the City by the development of land that has heretofore been vacant and by construction of additional residential, commercial and industrial units on land heretofore developed. The most practical and equitable method of collecting the funds necessary to provide such public improvements is to impose an excise tax upon the construction and occupancy of residential, commercial and industrial units or buildings in the City."

5.12.4.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

LS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for library services.

5.12.4.3 Environmental Impacts

IMPACT 5.12-4: AT BUILDOUT THE PROPOSED PROJECT WOULD POTENTIALLY HOUSE 2,724 RESIDENTS WHO WOULD CONSTITUTE A POPULATION INCREASE IN THE SERVICE AREA OF THE NEWPORT BEACH MARINERS BRANCH AND CENTRAL LIBRARIES. THIS POPULATION INCREASE WOULD CREATE AN INCREASED DEMAND FOR SERVICE FROM THE NEWPORT BEACH PUBLIC LIBRARY SYSTEM. [THRESHOLD LS-1]

Impact Analysis: Buildout of the proposed project would result in the development of 1,244 residential units that would potentially house about 2,724 residents, based on an average of 2.19 persons per household in the City of Newport Beach (USCB 2012)—1,489 residents in Phase1 and 1,235 residents in Phase 2 (see Table 5.12-2 above). This population increase would occur within the service area of the Newport Beach Public Library system. The two closest locations to the proposed project site are the Mariners Branch and Central Library; these locations would be the most likely to serve residents generated by the project. In responding to inquiry regarding impacts to library facilities and services,

Newport Beach Public Library staff indicated that while the Mariners Branch is currently at maximum capacity, an expansion of the Central Library is under construction and it will have sufficient space and book volumes to serve the existing population in its service area upon completion of the expansion. Staff also indicated that the proposed Uptown Newport project would create a need for an additional 2,000 square feet of library facility space at the Mariners Branch. Adding a kiosk style, self-contained library station for checkouts and returns in the Uptown Newport area was also recommended to reduce impacts to library facilities.

The proposed Uptown Newport Project would be subject to the City of Newport Beach property development tax to fund facilities and equipment for City libraries, pursuant to City Municipal Code Chapter 3.12.

5.12.4.4 Cumulative Impacts

Cumulative impacts to library services would occur when the proposed project, in combination with other recent, current, and proposed residential projects in the area, cause a substantial increase in the demand for library services, creating a need to construct new facilities resulting in substantial environmental impacts. The cumulative projects in the project area are listed on Table 4-3, in Chapter 4, *Environmental Setting*, of this Draft EIR. Cumulative projects including the proposed project would add 7,109 residential units in the City of Newport Beach. At the average household size of 2.19 persons in the City, cumulative projects are estimated to add about 15,569 persons to the City. The NBPL estimated that the 2,724 future residents of the proposed project would create a demand for an additional 2,000 square feet of library space, or about 0.73 square foot per person. Thus, the 15,569 future residents of cumulative projects in Newport Beach are estimated to create demand for about 11,431 square feet of additional library space. Each cumulative project in Newport Beach would pay an excise tax to the City upon the construction and occupancy of new projects, in part to finance construction of new and/or expanded library facilities. Payment of such fees would reduce cumulative impacts to library facilities and services.

5.12.4.5 Existing Regulations and Standard Conditions of Approval

Regulations

City of Newport Beach Municipal Code

- Title 3 (Revenue and Finance), Chapter 3.12 (Property Development Tax), Section 3.12.010 (Policy)

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to library services that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.12.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: 5.12-4.

5.12.4.7 Mitigation Measures

No potentially significant impacts have been identified; therefore, no mitigation measures are required.

5.12.4.8 Level of Significance After Mitigation

Impacts to library services would be less than significant and no mitigation measures are required.

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5.13 RECREATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Uptown Newport project to impact recreational amenities and/or facilities in the City of Newport Beach. The potential for adverse impacts on recreational facilities as well as impacts created due to the construction of additional recreational facilities is evaluated based on current facilities and their usage.

5.13.1 Environmental Setting

Regulatory Background

State and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized below.

State

Quimby Act

The 1975 Quimby Act (California Government Code Section 66477) allows a city or county to require—as a condition of approval of a subdivision—dedication of land for park or recreational purposes, payment of a fee in lieu of dedication, or a combination of both. This legislation established a maximum parkland dedication (or in-lieu fees) standard of 3 acres per 1,000 residents for a new subdivision development unless the amount of existing local and community parkland exceeds that limit, in which case local jurisdictions may adopt a standard of up to 5 acres per 1,000 residents. The Quimby Act does not provide dedication or fees for the City's trail system.

Local

City of Newport Beach Park Dedication Ordinance (Quimby Ordinance)

Consistent with and as permitted by the Quimby Act, the City has adopted a Park Dedication and Fees Ordinance (City of Newport Beach Municipal Code, Chapter 19.52). The ordinance requires that the project applicant for a residential subdivision "provide for the dedication of land, the payment of fees in lieu thereof, or a combination of both for park or recreational purposes in conjunction with the approval of residential development." The City's park dedication requirement is 5 acres per 1,000 persons (City of Newport Beach Municipal Code, Section 19.52.040). In-lieu fees are placed in a fund for the provision or rehabilitation of park and recreational facilities that can serve the subdivision. The Park Dedication and Fees Ordinance also provides for credit to be given, at the discretion of the City Council, for private recreational facilities within a new residential development or for the provision of park and recreational improvements to land dedicated for a public park. The amount of credit granted for private recreational facilities shall not exceed 20% of the required land dedication of in-lieu fee imposed (Municipal Code, Section 19.52.080).

City of Newport Beach General Plan

The City's General Plan includes the following Land Use Policies related to park and recreation open space provision:

- ***R 1.1 New Residential Subdivisions*** *(General Plan page 8-39)*. New Residential Subdivisions Require developers of new residential subdivisions to provide parklands at five acres per 1,000 persons, as stated in the City's Park Dedication Fee Ordinance, or to contribute in-lieu fees for the

development of public recreation facilities meeting demands generated by the development's resident population, as required in the City's Park Dedications Fees Ordinance.

- ***R 1.2 High-Density Residential Developments*** *(General Plan page 8-39)*. Require developers of new high-density residential developments on parcels eight acres or larger, to provide on-site recreational amenities. For these developments, 44 square feet of on-site recreational amenities shall be provided for each dwelling unit in addition to the requirements under the City's Park Dedications and Fees Ordinance. On-site recreational amenities can consist of public urban plazas or squares where there is the capability for recreation and outdoor activity. These recreational amenities can also include swimming pools, exercise facilities, tennis courts, and basketball courts. Where there is insufficient land to provide on-site recreational amenities, the developer shall be required to pay the City of Newport Beach cash in-lieu that would be used to develop or upgrade nearby recreation facilities to offset user demand as defined in the City's Park Dedications and Fees Ordinance. The acreage of on-site open space developed with residential projects may be credited against the parkland dedication requirements where it is, for example, accessible to the public during daylight hours, visible from public rights-of-way, and of sufficient size to accommodate recreational use by the public.

- ***LU 6.15.13 Standards*** *(General Plan page 3-109)*. To provide a focus and identity for the entire neighborhood and to serve the daily recreational and commercial needs of the community within easy walking distance of homes, require dedication and improvement of at least 8 percent of the gross land area (exclusive of existing rights-of-way) of the first phase development in each neighborhood, or ½ acre, whichever is greater, as a neighborhood park. This requirement may be waived by the City where it can be demonstrated that the development parcels are too small to feasibly accommodate the park or inappropriately located to serve the needs of local residents, and when an in-lieu fee is paid to the City for the acquisition and improvement of other properties as parklands to serve the Airport Area. In every case, the neighborhood park shall be at least 8 percent of the total Residential Village Area or one acre in area, whichever is greater, and shall have a minimum dimension of 150 feet. Park acreage shall be exclusive of existing or new rights-of-way, development sites, or setback areas. A neighborhood park shall satisfy some or all of the requirements of the Park Dedication Ordinance, as prescribed by the Recreation Element of the General Plan.

- ***LU 6.15.14 Location*** *(General Plan page 3-110)*. Require that each neighborhood park is clearly public in character and is accessible to all residents of the neighborhood. Each park shall be surrounded by public streets on at least two sides (preferably with on-street parking to serve the park), and shall be linked to residential uses in its respective neighborhood by streets or pedestrian ways.

- ***LU 6.15.16 Standards*** *(General Plan page 3-110)*. Require developers of multi-family residential developments on parcels 8 acres or larger to provide on-site recreational amenities. For these developments, 44 square feet of on-site recreational amenities shall be provided for each dwelling unit in addition to the requirements under the City's Park Dedication Ordinance and in accordance with the Parks and Recreation Element of the General Plan. On-site recreational amenities can consist of public urban plazas or squares where there is the capability for recreation and outdoor activity. These recreational amenities may also include swimming pools, exercise facilities, tennis courts, and basketball courts. Where there is insufficient land to provide on-site recreational amenities, the developer shall be required to pay cash in-lieu that would be used to develop or upgrade nearby recreation facilities to offset user demand as defined in the City's Park Dedication Fee Ordinance. The acreage of on-site open space developed with residential projects may be

credited against the parkland dedication requirements where it is accessible to the public during daylight hours, visible from public rights-of-way, and is of sufficient size to accommodate recreational use by the public. However, the credit for the provision of on-site open space shall not exceed 30 percent of the parkland dedication requirements.

Existing Conditions

Recreation is a major feature of Newport Beach, whose parks and beaches serve residents and visitors year-round. In addition to providing recreation resources, parks and other recreational facilities provide a multitude of benefits to the community, including open space, conservation of natural and significant resources, buffers between land uses, and preservation of scenic views.

The City of Newport Beach has an adopted standard of 5 acres per 1,000 persons for provision of parkland. The 2010 US Census estimates the population of Newport Beach to be 85,186 residents. Using the City's parkland standard, this population requires 425.9 acres of parkland. Presently, there are approximately 286 acres of park and recreation space in the City, which includes traditional park facilities as well as active beach recreation (Newport Beach 2006). Therefore, the City is experiencing a deficit of 139.9 acres of parkland.

The parkland deficit in Newport Beach is not distributed equally throughout all areas of the City; some areas remain park rich, while others are in need of additional facilities. In order to facilitate the distribution of new parklands, the City has been divided into 12 service areas. The needs of each service area and its potential to accommodate new parks are discussed in the Recreation Element of the City's General Plan. Particular issues and needs identified in this element include a general shortage of sport fields in the City as well as the community's desire for a gymnasium and pool facilities.

Parks

The proposed Uptown Newport project is in Service Area 4 (Santa Ana Heights), which is bounded by Campus Drive on the north and west, the Upper Newport Ecological Reserve on the south, and Jamboree Road and the City of Irvine on the east (see Figure 5.13-1, *Service Area 4 Recreation and Open Space Plan*). Recreation amenities within and adjacent to Service Area 4 are shown in Figure 5.13-1 and described in Table 5.13-1.

Table 5.13-1
Service Area 4 Recreational Amenities

Name	Type of Park	Location	Size	Amenities
Within Service Area 4				
Mesa Birch Park	Mini Park[1]	2081 Mesa Drive	0.7 acre	Benches, picnic table, fountains
Bayview Park	Community Park[2]	Mesa Drive and Bay View Avenue	2 acres	Barbecues, basketball court, playground
Adjacent to Service Area 4, outside City of Newport Beach				
Upper Newport Bay Regional Park (Orange County Park)	Open Space,[3] View Park[4]	North side of Upper Newport Bay, south of Mesa Drive	1,000 acres	Walking/running/biking trails, views of bay,
UCI Arboretum	Open Space	Campus Drive and Jamboree Road, Irvine	12.5 acres	The UCI Arboretum is a botanic garden and research facility, which is open to the public.
San Joaquin Freshwater Marsh (Managed by UCI)	Greenbelt,[5] Open Space	Campus Drive Between Jamboree and University, Irvine	220 acres	Access to the public is limited to guided tours. Functions primarily as a wildlife preserve and to support biological research.

Sources: Newport Beach 2006a; Newport Beach 2006b; OC Parks 2008.
[1] Typically less than one acre in size and within a neighborhood, separate from major or collector roads. However, some mini-parks are urban trailheads along major trails or streets.
[2] Community parks serve the entire City and include improvements such as community buildings, parking, facilities for picnicking, active sports, and other facilities that serve a larger population. Community parks may have a particular theme or orientation such as active sports or aquatic facilities.
[3] Open space includes passive and active open space areas. These spaces may or may not be accessible to the general public, but do provide open space relief.
[4] Smaller parks used for passive recreation and designed to take advantage of a significant view. Typically located on coastal bluffs that offer ocean or bay vistas. Generally improved with landscaping, walkways, and benches.
[5] The primary function of a greenbelt is passive open space. However, some areas with recreational facilities are included in this category. Greenbelts include land under both public and private ownership.

In addition to the recreation areas outlined in Table 5.13-1, there are two existing regional bike trails near Service Area 4: one running north–south along the San Diego Creek and another east–west along Campus Drive. According to the City's General Plan, Service Area 4 has considerable recreation opportunities due to the presence of multiple parks, including Upper Newport Bay Regional Park. With the exception of a shortfall in active playfields, Service Area 4 is considered to have a surplus of parkland.

5.13.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

R-1 Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

R-2 Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: R-2. This impact will not be addressed in the following analysis.

Service Area 4 Recreation and Open Space Plan

Source: City of Newport Beach General Plan 2006

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5.13.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.13-1: ***AT PROJECT BUILDOUT THE PROPOSED PROJECT WOULD INTRODUCE AN ESTIMATED 2,724 RESIDENTS TO SERVICE AREA 4 (SANTA ANA HEIGHTS/AIRPORT COMMERCIAL). BASED ON THE CITY'S PARKLAND DEDICATION REQUIREMENTS, THE PROJECT WOULD REQUIRE 13.62 ACRES OF PARK SPACE. [THRESHOLD R-1]***

Impact Analysis:

Phase 1

The proposed Uptown Newport project would develop up to 1,244 residential units on an existing industrial site in two phases. Phase 1 consists of 8.65 acres and 680 units, and Phase 2 consists of 10.02 acres and 564 units. The City of Newport Beach has an average of 2.19 persons per household (US Census Bureau 2012). Based on this household size, the proposed project is estimated to house 2,724 residents at buildout: 1,489 in Phase 1 and 1,235 in Phase 2 .This population increase would result in an increase in use of existing City parks and recreational facilities.

In accordance with the City's parkland dedication requirements of 5 acres per 1,000 residents, the proposed project would require 13.63 acres of park space, as shown in Table 5.13-2—7.45 acres would be required to accommodate Phase 1 and 6.18 acres would be required to accommodate Phase 2.

Table 5.13-2
Required Parkland Compared to Parkland Provided

Phase	Housing Units	Residents	Parkland Required	Parkland Provided	Deficit
One	680	1,489	7.45	1.03	6.42
Two	564	1,235	6.18	1.02	5.16
Total	**1,244**	**2,724**	**13.62**	**2.05**	**11.58**

As shown in the table, the proposed project would provide 2.05 acres of parkland within two neighborhood parks—1 .03 acres to be developed under Phase 1 and 1.02 acres under Phase 2. These parks would be principal focal points for the proposed residential community and provide connectivity between neighborhoods. As shown in Figure 3-6, *Site Plan and Phasing Plan*, each phase of the proposed would be served by a neighborhood park, which could include amenities such as activity lawns, fire place and barbecue courtyards, and sport courts, including but not limited to sand volleyball, bocce ball, crotchet, or horse shoes. Neighborhood parks within Uptown Newport would be publicly accessible but privately owned and maintained.

As shown in Table 5.13-2, the remaining parkland requirements for the project after development of the two onsite parks would be 11.58 acres. As permitted by Section 19.52.050 (Determination of Land or Fee) of the City's Municipal Code, the remaining parkland requirement could be met through the dedication of parkland, payment of in lieu fees, or a combination of both. Based on the estimated value of $2.5 million per acre (City

of Newport Beach, February 2012), the in-lieu fees to meet the remaining park obligation would be $28,950,000 or an equivalent of $23,271 per unit (for 1,244 units).

Pursuant to General Plan Policy 6.15.13, at least 8 percent of the gross area of the first phase of residential development shall be provided as dedicated park space. As shown in Table 5.13-3, *Dedicated Park Minimum Acreage,* the project complies with this requirement.

Table 5.13-3
Dedicated Park Minimum Acreage

Phase	Acres	Parkland Provided	Percent of Gross Acres
One	12.29	1.03	8.4
Two	12.76	1.02	8.0
Total	**25.05**	**2.05**	**8.2**

In addition to the neighborhood parks, Uptown Newport would incorporate common open space areas, private open space areas, and ancillary amenities within the project to serve residents and visitors in accordance with the provisions outlined in the project's PC Development Plan. Per General Plan Land Use Policy LU 6.15.16, the project applicant shall provide 44 square feet (sf) of onsite recreation amenities per each dwelling units (in addition to the park dedication requirement). These amenities may include public urban plazas or squares where there is the capability for recreation and outdoor activity, and may also include swimming pools, exercise facilities, tennis courts, and basketball courts. Phase 1 of the project (680 units) would require a minimum of 29,920 sf of onsite amenities, and Phase 2 (564 units) would require 24,816 sf of onsite amenities for a total of 54,736 sf of recreational amenities.

Additionally, as discussed in Chapter 3, *Project Description*, the right-of-way for a future Class 1 bike trail[1] would be provided along the Jamboree Road project frontage. The project applicant would be required to design and construct a 12-foot wide sidewalk along this trail easement to accommodate pedestrians and bicycles. The project's residents would also have access to existing bicycle trails along Campus Drive and the San Diego creek, as well as to recreation opportunities at nearby regional open space and recreation areas, including Upper Newport Bay, the UCI Arboretum, and the San Joaquin Freshwater Marsh.

Recreation Service Area 4 is considered to have a surplus of parkland relative to demands of its existing population, except for a shortfall of active playfields. While development of the proposed project would increase the population of Newport Beach and consequently increase the demand for park and recreation amenities, the particular service area where the proposed project is located currently has a surplus of parkland.

Therefore, in consideration of the proposed project's location near existing recreation amenities, the surplus of parkland in Service Area 4, the provision of onsite park space and recreational amenities, and the payment of in-lieu fees, impacts to recreation are not anticipated.

Phase 2

The analysis of Phase 2 is integrated in the discussion of Phase 1, above.

[1] A Class I bicycle trail is off-road; its surface can be paved or earthen.

5.13.4 Cumulative Impacts

Future construction projects in the City of Newport Beach, as identified in Chapter 4, *Environmental Setting*, could lead to increased demand for parks and recreational space. The only related project within Service Area 4 is the Koll Center project consisting of 260 dwelling units. Based on the parkland dedication requirements detailed in this section, this project would be required to dedicate 2.85 acres of parkland. As currently planned, the project includes a one-acre park, and therefore, would be required to dedicate offsite parkland or in-lieu fees for a remaining 1.85 acre obligation. As with the Uptown Newport project, the Koll Center project obligation would be mandatory per City's Municipal Code. The proposed project, therefore, would not combine with cumulative projects to result in a cumulatively significant impact to parks and recreational spaces.

5.13.5 Existing Regulations and Standard Conditions of Approval

Regulations

- City of Newport Beach Municipal Code, Park Dedication and Fees Ordinance, Chapter 19.52

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to recreation that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process..

5.13.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.13-1.

5.13.7 Mitigation Measures

No significant impacts to recreation would occur, and no mitigation measures are necessary.

5.13.8 Level of Significance After Mitigation

No significant unavoidable adverse impacts relating to recreation would occur.

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5.14 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Uptown Newport (proposed project) to result in transportation and traffic impacts in the City of Newport Beach. The analysis in this section is based in part on the following technical report:

- *Uptown Newport Traffic Impact Analysis,* Kimley-Horn and Associates, May, 2012.

This Traffic Impact Analysis was prepared in accordance with the City of Newport Beach Traffic Phasing Ordinance (TPO) traffic impact study requirements, County of Orange Congestion Management Program (CMP) requirements, and in support of the environmental documentation for the project, per the California Environmental Quality Act (CEQA). The analysis examines weekday AM peak hour and PM peak hour traffic conditions at 43 existing intersections in the vicinity of the proposed project in the City of Newport Beach and the adjoining City of Irvine. A complete copy of this report is included in Appendix M of this DEIR.

5.14.1 Environmental Setting

Existing Roadway Network

Regional access to the project site is provided by the Corona del Mar Freeway (SR-73), located less than one mile to the south of the project area, and by the San Diego Freeway (I-405) located less than 1.5 miles north of the project area. The proposed development would take access to the surrounding street system via connections to Jamboree Road for Phase 1 and connections to Jamboree Road and to Birch Street for Phase 2. The locations of study intersections are shown on Figure 5.14-1, *Study Intersections.* The existing roadway network contained in the study area is described in this section and shown in Figure 5-14-2, *Existing Lane Configuration and Traffic Control*.

- **Birch Street** is a four-lane undivided roadway, designated a Secondary Arterial on the City of Newport Beach Circulation Element.

- **Bristol Street North** is a four-lane one-way arterial that extends from Jamboree Road in a northwest direction north of and parallel to SR-73. Bristol Street is classified a Primary Arterial in the City of Newport Beach Circulation Element.

- **Bristol Street South** is a four-lane one-way arterial that extends from Santa Ana Avenue/Red Hill Avenue to Jamboree Road in a southeast direction south of and parallel to SR-73.

- **Campus Drive** is a four-lane divided arterial that extends north–south between Bristol Street and MacArthur Boulevard then turns and extends as a four-lane undivided arterial in an east–west orientation between MacArthur Boulevard and University Drive. Campus Drive is designated on the City of Newport Beach Circulation Element as a Major Arterial between Bristol Street and MacArthur Boulevard, and as a Secondary Arterial between MacArthur Boulevard and University Drive.

- **The Corona del Mar Freeway (SR-73)** is a seven- to eight-lane divided freeway providing regional access to and through the project area. SR-73 has four travel lanes in the northbound direction, and transitions from four to three travel lanes in the southbound direction east of Bristol Street.

- **Dupont Drive** is a four-lane divided east–west arterial in the City of Irvine.

- **Fairchild Road** is a four-lane collector in the City of Irvine that extends from Jamboree Road to McArthur Boulevard.

- **Jamboree Road** is a six-lane to eight-lane divided arterial classified a Major Arterial in the cities of Irvine and Newport Beach Circulation Elements.

- **Main Street** is a six-lane divided east-west arterial designated a Major Arterial on the City of Irvine Circulation Element.

- **MacArthur Boulevard** is a six- to eight-lane divided arterial that extends through the cities of Newport Beach and Irvine. MacArthur Boulevard is classified a Major Arterial in both cities' Circulation Elements.

- **Michelson Drive** is a four-lane divided east-west arterial in the City of Irvine.

- **The San Diego Freeway (I-405)** is a twelve-lane freeway through the study area, providing regional access to the vicinity via interchanges at McArthur Boulevard and Jamboree Road.

- **University Drive** is a four-lane to six-lane divided arterial classified a Primary on the City of Newport Beach Circulation Element and a Major Arterial on the City of Irvine Circulation Element.

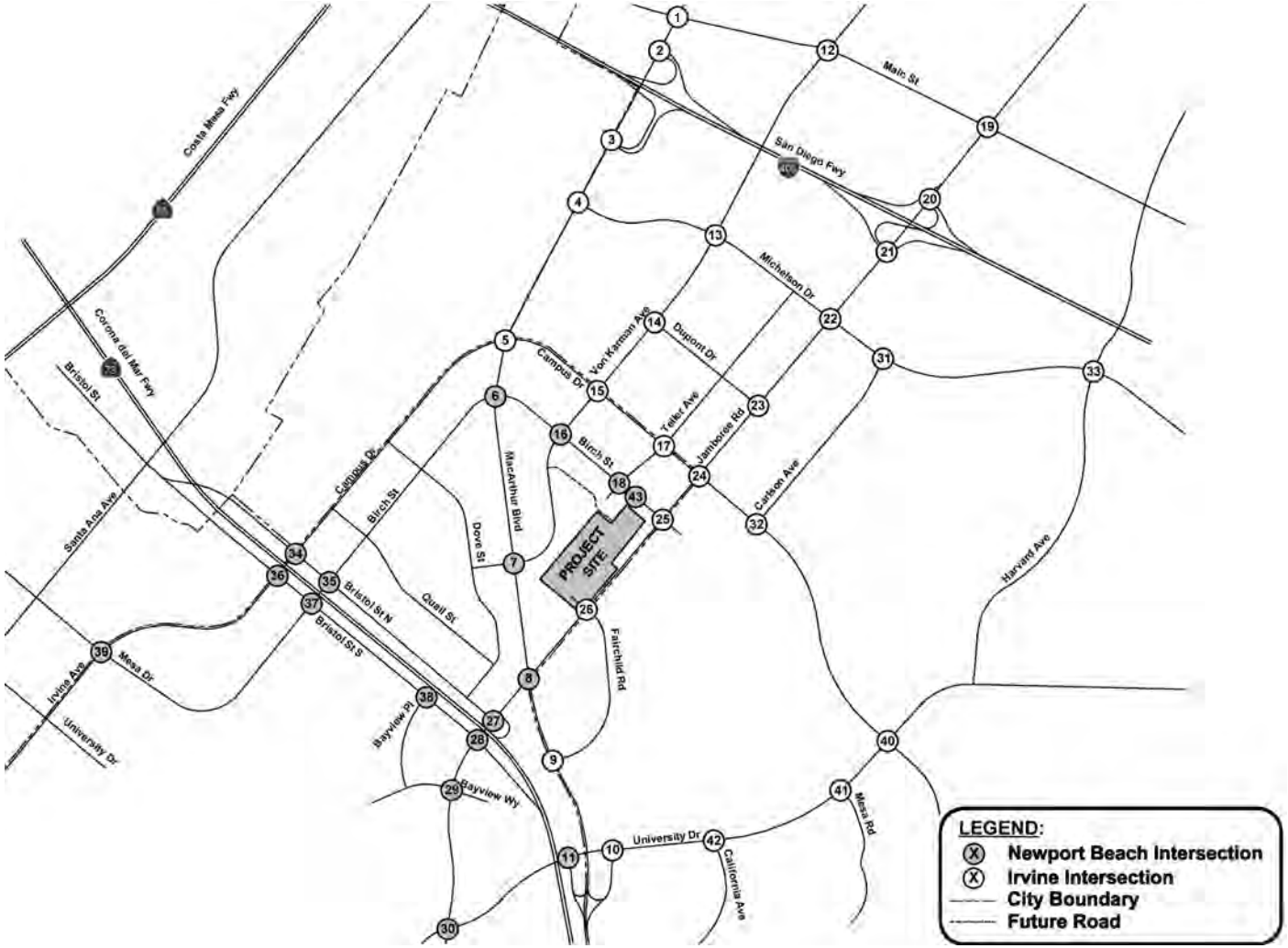
- **Von Karman Avenue** is a four-lane Primary on the City of Newport Beach Circulation Element. On the City of Irvine Circulation Element, Von Karman Avenue is classified a Secondary Highway.

Existing Transit Service

Public transit bus service in the study area is provided by the Orange County Transportation Authority (OCTA). Figure 5.14-3 illustrates the bus routes currently operated by OCTA through the study area in the cities of Newport Beach and Irvine. The following OCTA routes serve the project site and vicinity:

- **OCTA Route 59**: Operates between the City of Anaheim and the City of Irvine via Kraemer Boulevard/Glassell Street/Grand Avenue and Von Karman Avenue. Route 59 starts at Kraemer and La Palma in Anaheim and proceeds through the cities of Orange, Santa Ana, and Tustin, then through the City of Irvine to the University of California, Irvine (UCI). The Route 59 stop closest to the project site is at the corner of Campus Drive and Jamboree Road. Route 59 operates in full route mode on weekdays from 4:30 AM to 11:30 PM with 20- to 35-minute headways. On Saturdays, Route 59 does not offer service to UCI; it only operates to Pullman Street and Dyer Road from 6:50 AM to 11:30 PM, with 65-minute headways. Route 59 does not currently operate on Sundays.

Study Intersections



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Source: Kimley-Horn and Associates Inc 2012

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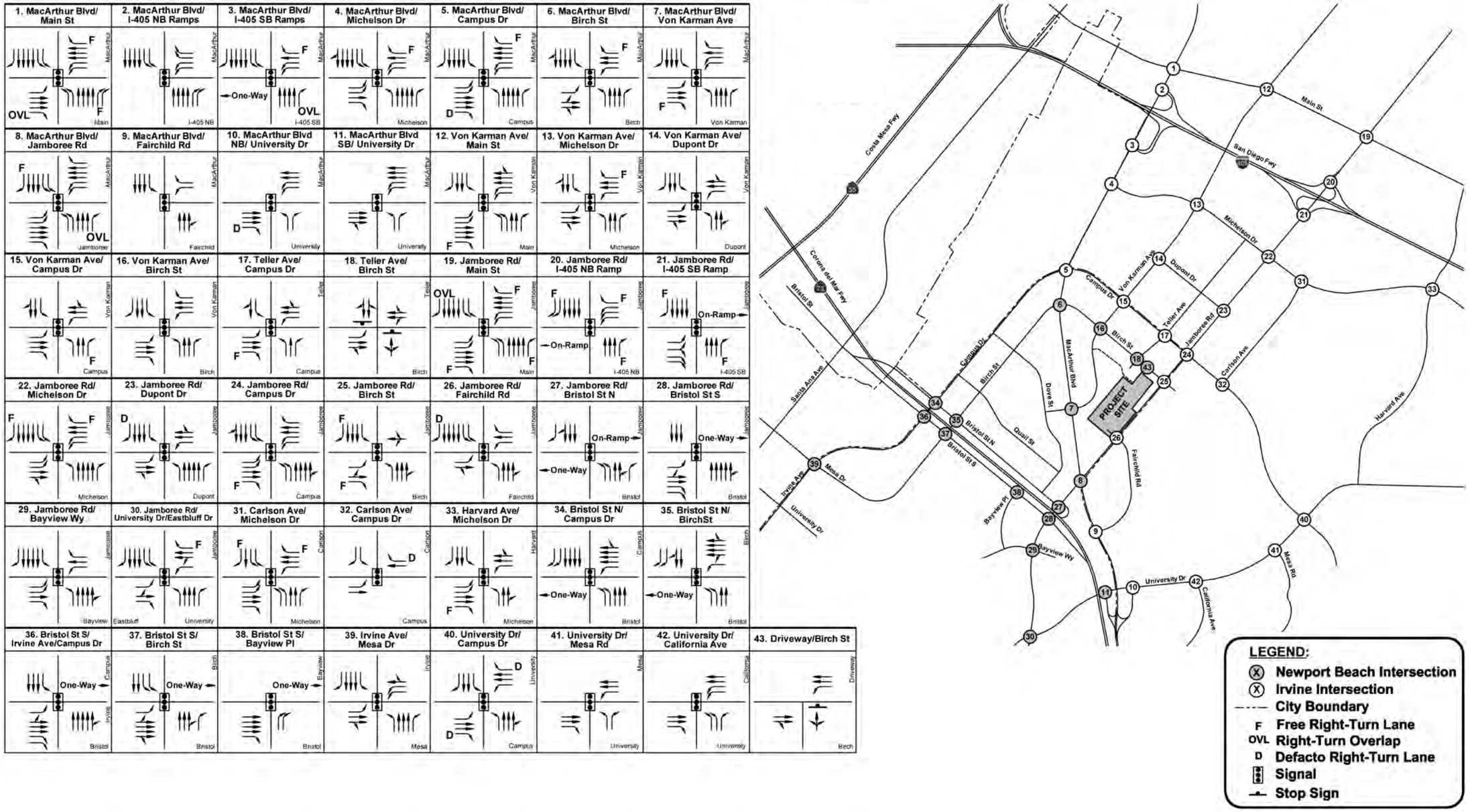
Existing Lane Configurations and Traffic Controls



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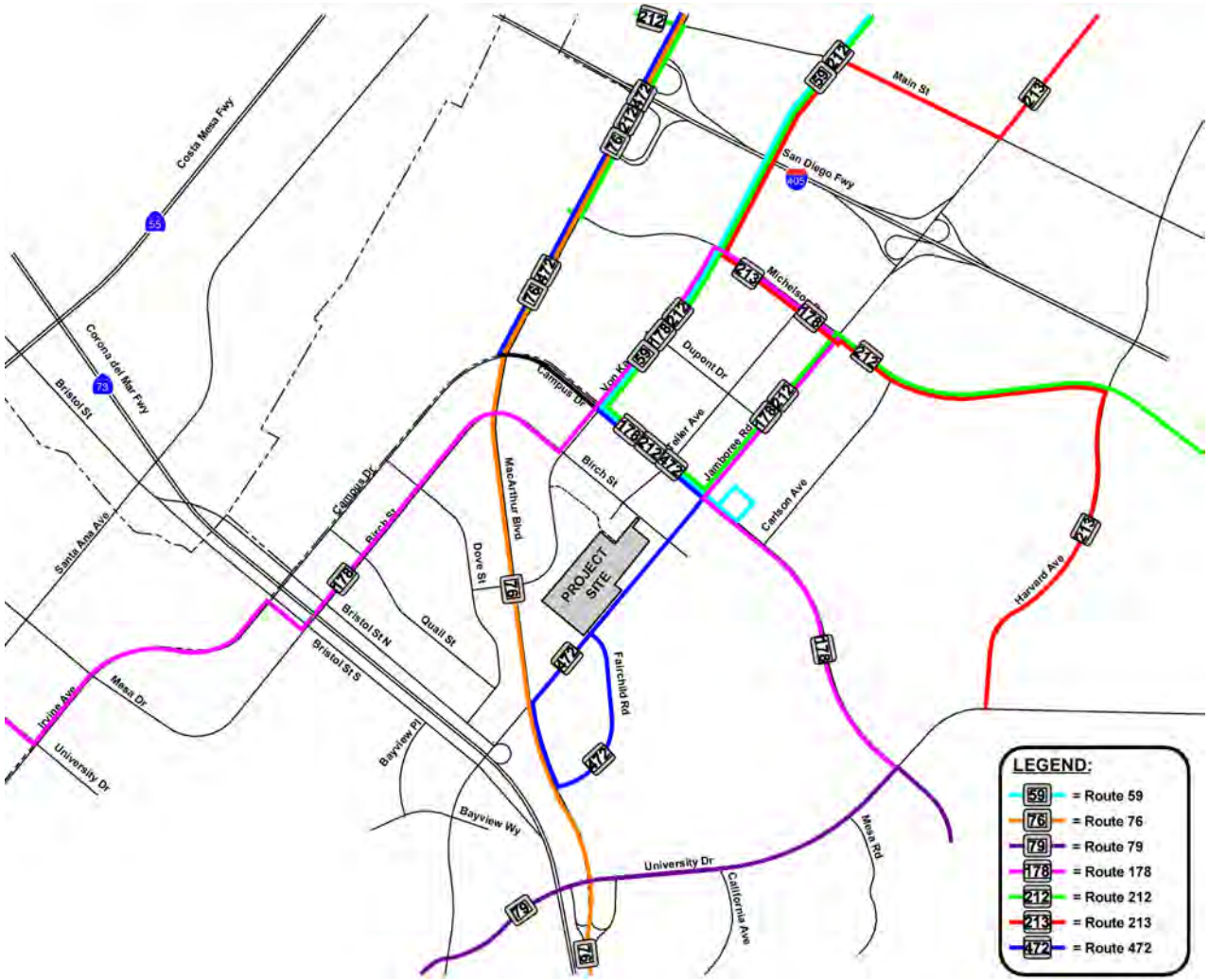
Bus Routes Currently Operated in the Project Study Area



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- **OCTA Route 76:** Operates between the City of Huntington Beach and the City of Newport Beach via Talbert Avenue/MacArthur Boulevard. Route 76 starts at Talbert and Beach in Huntington Beach and travels through the cities of Fountain Valley, Santa Ana, and Irvine to Newport Beach, where it turns around at the Newport Transportation Center. The Route 76 stop closest to the project site is at the corner of MacArthur Boulevard and Jamboree Road. Route 76 operates on weekdays only, from 4:55 AM to 11:10 PM with 45-minute to 1-hour headways.

- **OCTA Route 178:** Operates between the City of Huntington Beach and the City of Irvine via Adams Avenue, Birch Street, and Campus Drive. Route 178 starts at Goldenwest Street and Yorktown Avenue in Huntington Beach and heads east through the cities of Costa Mesa and Newport Beach to UCI in the City of Irvine. The Route 178 stop closest the site is located at the corner of Campus Drive and Jamboree Road. Route 178 operates in full-route mode on weekdays from 5:50 AM to 10:50 PM with 45-minute to 1-hour headways. On Saturdays, Route 178 does not offer service to UCI; it operates only to the Orange County Fairgrounds from 8:20 AM to 4:20 PM with 45-minute headways. Route 178 does not operate on Sundays.

- **OCTA Route 212:** Provides express route service between John Wayne Airport and San Juan Capistrano via the San Diego Freeway (I-405). Route 212 starts at John Wayne Airport and continues south on I-405 to San Juan Capistrano, where it turns around at the Junipero Serra Park-and-Ride. The Route 178 stop closest the site is located at the corner of Campus Drive and Jamboree Road. Route 212 operates on weekdays only, and in the northbound direction only in the morning from 5:50 to 7:30 AM; and in the southbound direction only in the evening from 4:00 to 6:30 PM.

- **OCTA Route 213:** Operates between the Park-and-Ride in Brea and UCI via Brea Boulevard, Chapman Avenue, SR-55, Alton Parkway, Jamboree Road, Main Street, Von Karman Avenue, Michelson Drive, and Harvard Avenue. Major destinations along the route include Brea Mall, Fullerton Transportation Center, the Village at Orange, and UCI. Route 213 operates on weekdays only, and in the southbound direction only in the morning from 5:22 to 7:58 AM; and in the northbound direction only in the evening from 4:03 to 6:58 PM.

- **OCTA Route 472:** Provides Metrolink feeder route service for the Tustin Metrolink Station on Jamboree Road. Route 472 starts at the Tustin Metrolink Station and travels through the City of Irvine where it turns around at the Food and Drug Administration building on Fairchild Road, across Jamboree Road from the project site. The Route 472 stop closest to the site is located at the corner of Fairchild Road and Jamboree Road. Route 472 operates on weekdays only, and in the southbound direction only in the morning from 6:10 to 9:00 AM; and in the northbound direction only in the evening from 3:30 to 5:20 PM.

Existing Bicycle and Pedestrian Paths

For its entire length through the City of Newport Beach, Jamboree Road is currently designated on the City of Newport Beach Bike Map as “Okay to Ride on Sidewalk.” On the City’s Bikeways Master Plan, Jamboree Road is shown as a Class 1 (off-road paved) bikeway. Other bicycle facilities in the project vicinity include Class 2 bicycle lanes (an on-road striped lane) on Campus Drive, and the “Okay to Ride on Sidewalk” designation on Von Karman from MacArthur Boulevard to Campus Drive, and on MacArthur Boulevard from Campus Drive to Jamboree Road. The City’s Bikeways Master Plan shows that the Class 2 bike lanes on Campus Drive are to remain, and the bike facilities on MacArthur Boulevard and Von Karman Avenue are planned to be Class 1 bikeways. A copy of the City of Newport Beach Bike Map and Bikeways Master Plan is provided in the Traffic Impact Analysis (Appendix M).

Along the project frontage, Jamboree Road provides a meandering sidewalk within a landscaped parkway. The sidewalk connections from the project site to Jamboree Road and through the adjacent Koll property provide convenient access for bicyclists to access the nearest existing bicycle facilities. The nearest signalized intersections in the vicinity of the project site (e.g., Jamboree Road at Fairchild Road, Centerpoint Road, Birch Street, and MacArthur Boulevard) have light-controlled pedestrian crossings.

Methodology

The analysis examines traffic conditions at 43 existing intersections in the vicinity of the proposed project in the City of Newport Beach and the adjoining City of Irvine. Morning and evening peak hour intersection movement counts in this study were collected at the study intersections between March 2010 and November 2011. Existing AM and PM peak-hour traffic counts for all study intersections are detailed in the Traffic Impact Analysis (DEIR Appendix M, Figure 7).

The analysis also evaluates freeway mainline traffic conditions on segments of I-405 and SR-73. Existing freeway mainline volumes were obtained from the Caltrans website; the most recent data available was from 2010 conditions.

The efficiency of traffic operations is commonly measured by traffic engineers and planners with a grading system called level of service (LOS). LOS ranges from "A", representing uncongested, free-flowing conditions, to "F", representing congested, overcapacity conditions. The following described the methodologies utilized to evaluate LOS at local, state highway system intersections, and freeway mainline segments.

Intersection Evaluation Level of Service Methodology

The most common methodologies to evaluate LOS are the Intersection Capacity Utilization (ICU) and the Highway Capacity Manual (HCM). The ICU calculation returns a volume-to-capacity (V/C) ratio that translates into a corresponding level of service. The HCM methodology returns a delay value, expressed in terms of the average seconds of delay per vehicle, which also corresponds to a level of service measure.

Each intersection has been analyzed using the methodology and parameters employed by the city in which the intersection is located. Of the 43 study intersections, 26 are controlled by the City of Irvine and 17 are controlled by the City of Newport Beach. For “shared” intersections on the city boundary, the intersection analysis is based on the methodology used by the City that maintains and controls the signal. Four intersections are on state highways, and are therefore controlled by Caltrans. A separate analysis of the state highway intersections using the analysis methodology required by Caltrans for state facilities is provided in a separate portion of this section.

Intersection analysis for all local signalized intersections has been conducted using the ICU methodology, which is the methodology utilized by both the City of Newport Beach and the City of Irvine, as well as the Orange County CMP. (State highway intersections are also analyzed in accordance with Caltrans requirements, using a separate methodology, as discussed later in this section.) Intersection analysis for local unsignalized intersections has been conducted using the HCM methodology, which returns a delay value, expressed in terms of the average seconds of delay per vehicle.

Intersection LOS grades corresponds to a range of V/C or delay values, as described in Table 5.14-1. These descriptions apply for local intersections controlled by the Cities of Newport Beach and Irvine. Table 5.14-2 describes LOS grades for the state highway intersections.

Table 5.14-1
Local Intersection Evaluation Levels of Service Descriptions

Level of Service	Description	Unsignalized Intersections HCM Delay (Seconds)	Signalized Intersection ICU (V/C Ratio)
A	Unsignalized – Little or no delays. Signalized – Operations with very low delay occurring with favorable progression and/or short cycle length.	≤ 10	0.00 – 0.60
B	Unsignalized – Little or no delays. Signalized – Operations with low delay occurring with good progression and/or short cycle lengths.	> 10 and ≤ 15	0.61 – 0.70
C	Unsignalized – Short traffic delays. Signalized – Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear	> 15 and ≤ 25	0.71 – 0.80
D	Unsignalized – Average traffic delays. Signalized – Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 25 and ≤ 35	0.81 – 0.90
E	Unsignalized – Long traffic delays. Signalized – Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 35 and ≤ 50	0.91 – 1.00
F	Unsignalized – Extreme traffic delays with intersection capacity exceeded. Signalized – Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	> 50	> 1.00

Source: Kimley-Horn and Associates, 2012.
V/C= Volume per Capacity

Table 5.14-2
State Highway Intersection Evaluation Levels of Service Descriptions

Level of Service	Signalized Intersection Delay (sec)	Description
A	≤10	LOS A describes operations with a control delay of 10 seconds per vehicle or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
B	> 10 and ≤ 20	LOS B describes operations with control delay between 10 and 20 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is short. More vehicles stop than with LOS A.
C	> 20 and ≤ 35	LOS C describes operations with control delay between 20 and 35 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the progression is favorable and the cycle length is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.
D	> 35 and ≤ 55	LOS D describes operations with control delay between 35 and 55 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.
E	> 55 and ≤ 80	LOS E describes operations with control delay between 55 and 80 seconds per vehicle and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.
F	> 80	LOS E describes operations with control delay exceeding 80 seconds per vehicle or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Many vehicles fail to clear the queue.

Source: Kimley-Horn and Associates, 2012.

The level of service analysis for intersections is performed using TRAFFIX, a network-based interactive computer program that enables calculation of levels of service at signalized and unsignalized intersections for multiple locations and scenarios.

Freeway Mainline Evaluation Level of Service Methodology

Analysis of freeway mainline segments in the vicinity of the project was conducted in accordance with the Caltrans Guide for the Preparation of Traffic Impact Studies, which specifies application of the HCM methodology for freeway analysis. Freeway analysis results are expressed in terms of density, which measures the number of passenger cars per lane mile (pc/mi/ln) on the freeway mainline.

Level of Service Criteria

The following discusses the criteria to evaluate the level of service at intersections under local jurisdictions and the state highway system, and criteria to evaluate freeway mainline segments under the state highway system.

Local Jurisdictions Intersection Level of Service Criteria

The City of Newport Beach target LOS for peak hour operation of signalized intersections is LOS "D" or better, except for designated intersections within the airport area shared with the City of Irvine, where LOS "E" is acceptable. In the City of Irvine, the target is LOS "D", except where the intersection is located in the Irvine Business Complex (IBC) or the Irvine Spectrum area. For these intersections, the target Level of Service is "E". The following study intersections are located in the Irvine Business Complex:

- MacArthur Boulevard at Main Street
- MacArthur Boulevard at I-405 Northbound Ramps
- MacArthur Boulevard at I-405 Southbound Ramps
- MacArthur Boulevard at Michelson Drive
- MacArthur Boulevard at Campus Drive
- MacArthur Boulevard at Jamboree Road
- MacArthur Boulevard at Fairchild Road
- Von Karman Avenue at Main Street
- Von Karman Avenue at Michelson Drive
- Von Karman Avenue at Dupont Drive
- Von Karman Avenue at Campus Drive
- Teller Avenue at Campus Drive
- Jamboree Road at Main Street
- Jamboree Road a I-405 Northbound Ramps
- Jamboree Road at I-405 Southbound Ramps
- Jamboree Road at Michelson Drive
- Jamboree Road at Dupont Drive
- Jamboree Road at Campus Drive
- Jamboree Road at Fairchild Road
- Carlson Avenue at Michelson Drive
- Carlson Avenue at Campus Drive

CMP Intersection Level of Service Criteria

The CMP requires that CMP Highway System (CMPHS) intersections maintain a LOS "E" or better, unless the baseline is lower than "E", in which case, the ICU rating cannot increase by more than 0.1.

State Highway Intersection Level of Service Criteria

For state-controlled intersections, level of service standards and impact criteria specified by Caltrans will apply. The Caltrans Guide for the Preparation of Traffic Impact Studies states that "Caltrans endeavors to maintain a target Level of Service at the transition between LOS 'C' and LOS 'D' on State highway facilities. If an existing State highway facility is operating at less than the target LOS, the existing Level of Service is to be maintained."

Freeway Mainline Level of Service Criteria

The target LOS for freeway mainline segments is LOS "D", which is a density of between 35 and 45 pc/mi/ln. If the existing density exceeds the target LOS, the existing level of service is to be maintained.

Existing Traffic Conditions

Intersection Levels of Service

Table 5.14-3 shows existing levels of service for the 43 study intersections for AM and PM peak hours. As shown, all study intersections currently operate at satisfactory levels of service (LOS "D" for all intersections, except LOS "E" for intersections in the IBC area and CMP intersections) in both peak hours.

Table 5.14-3
Summary of Intersection Operations Existing Conditions

	Intersection	U/S	AM Peak Hour		PM Peak Hour	
			ICU/ Delay	LOS	ICU/ Delay	LOS
1	MacArthur Blvd/Main St[a]	S	0.49	A	0.65	B
2	MacArthur Blvd/I-405 NB Ramps[a]	S	0.81	D	0.72	C
3	MacArthur Blvd/I-405 SB Ramps[a]	S	0.59	A	0.65	B
4	MacArthur Blvd/Michelson Dra[a]	S	0.68	B	0.65	B
5	MacArthur Blvd/Campus Dr[a]	S	0.48	A	0.60	A
6	MacArthur Blvd/Birch St	S	0.34	A	0.46	A
7	MacArthur Blvd/Von Karman Ave	S	0.54	A	0.44	A
8	MacArthur Blvd/Jamboree Rd[a,b]	S	0.59	A	0.67	B
9	MacArthur Blvd/Fairchild Rd[a]	S	0.71	C	0.72	C
10	MacArthur Blvd NB Off-ramp/University Dr	S	0.44	A	0.54	A
11	MacArthur Blvd SB Off-ramp/University Dr	S	0.38	A	0.32	A
12	Von Karman Ave/Main St[a]	S	0.64	B	0.70	B
13	Von Karman Ave/Michelson Dr[a]	S	0.44	A	0.64	B
14	Von Karman Ave/Dupont Dr[a]	S	0.34	A	0.41	A
15	Von Karman Ave/Campus Dr[a]	S	0.47	A	0.59	A
16	Von Karman Ave/Birch St	S	0.29	A	0.35	A

Table 5.14-3
Summary of Intersection Operations Existing Conditions

	Intersection	U/S	AM Peak Hour ICU/ Delay	AM Peak Hour LOS	PM Peak Hour ICU/ Delay	PM Peak Hour LOS
17	Teller Ave/Campus Dr[a]	S	0.27	A	0.41	A
18	Teller Ave/Birch St	U	12.10	B	11.50	B
19	Jamboree Rd/Main St[a]	S	0.70	B	0.61	B
20	Jamboree Rd/I-405 NB Ramps[a,b]	S	0.64	B	0.62	B
21	Jamboree Rd/I-405 SB Ramps[a,b]	S	0.88	D	0.81	D
22	Jamboree Rd/Michelson Dr[a]	S	0.61	B	0.68	B
23	Jamboree Rd/Dupont Dr[a]	S	0.61	B	0.63	B
24	Jamboree Rd/Campus Dr[a]	S	0.67	B	0.63	B
25	Jamboree Rd/Birch St	S	0.46	A	0.48	A
26	Jamboree Rd/Fairchild Rd[a]	S	0.65	B	0.63	B
27	Jamboree Rd/Bristol St North	S	0.29	A	0.46	A
28	Jamboree Rd/Bristol St South	S	0.45	A	0.52	A
29	Jamboree Rd/Bayview Way	S	0.35	A	0.39	A
30	Jamboree Rd/University Dr	S	0.56	A	0.52	A
31	Carlson Ave/Michelson Dr[a]	S	0.48	A	0.60	A
32	Carlson Ave/Campus Dr[a]	S	0.39	A	0.72	C
33	Harvard Ave/Michelson Dr	S	0.65	B	0.77	C
34	Campus Dr/Bristol St North	S	0.48	A	0.71	C
35	Birch St/Bristol St North	S	0.54	A	0.56	A
36	Campus Dr/Bristol St South	S	0.59	A	0.48	A
37	Birch St/Bristol St South	S	0.39	A	0.41	A
38	Bayview Pl/Bristol St South	S	0.40	A	0.49	A
39	Irvine Ave/Mesa Dr	S	0.32	A	0.49	A
40	University Dr/Campus Dr	S	0.70	B	0.73	C
41	Mesa Rd/University Dr	S	0.59	A	0.62	B
42	California Ave/University Dr	S	0.58	A	0.61	B
43	Birch St/Driveway	U	8.80	A	11.30	B

Source: Kimley-Horn and Associates, 2012.
[a] = Intersection is located within the Irvine Business Complex Vision Plan Area (LOS E Acceptable)
[b] = Orange County Congestion Management Program (CMP) intersection (LOS E Acceptable)
S = Signalized, U = Unsignalized
Bold and shaded values indicate intersections operating at LOS E or F.
Intersection operation is expressed in average seconds of delay per vehicle during the peak hour for signalized intersections using the HCM 2000 Methodology.

Table 5.14-4 shows that the four state highway study intersections currently operate at acceptable LOS during the AM and PM peak hours.

Table 5.14-4
Summary of State Highway Intersection Operations Existing Conditions

Intersection		U/S	AM Peak Hour ICU/ Delay	LOS	PM Peak Hour ICU/ Delay	LOS
2	MacArthur Blvd/I-405 NB Ramps	S	21.5	C	21.1	C
3	MacArthur Blvd/I-405 SB Ramps	S	19.8	B	19.3	B
20	Jamboree Rd/I-405 NB Ramps	S	14.9	B	8.8	A
21	Jamboree Rd/I-405 SB Ramps	S	21.9	C	17.8	B

Source: Kimley-Horn and Associates, 2012.
S = Signalized, U = Unsignalized
Bold and shaded values indicate intersections operating at LOS E or F.
Intersection operation is expressed in average seconds of delay per vehicle during the peak hour for signalized intersections using the HCM 2000 Methodology.

Existing Freeway Mainline Levels of Service

Existing peak hour freeway volumes and analysis results for the morning and evening peak hours, by segment, and by direction for the I-405 and SR-73 freeways are summarized on Table 5.14-5. This table indicates that the following freeway segments are currently operating below the target level of service:

- I-405 Northbound
  - Jamboree Road to MacArthur Boulevard (LOS E: AM peak hour)
  - MacArthur Boulevard to Jct. SR-55 (LOS E: AM peak hour)

- I-405 Southbound
  - MacArthur Boulevard to Jamboree Road (LOS E: PM peak hour)
  - Jamboree Road to Culver Drive (LOS E: PM peak hour)

- SR-73 Northbound
  - Jamboree Road to Jct. SR-55 (LOS E: PM peak hour)

All other study freeway segments are currently operating at LOS D or better during both peak hours.

Table 5.14-5
Summary of Freeway Mainline Operations Existing Conditions

Freeway Segment	Lanes	AM Peak Hour Volume	AM Peak Hour Density (pc/mi/ln)	AM Peak Hour LOS	PM Peak Hour Volume	PM Peak Hour Density (pc/mi/ln)	PM Peak Hour LOS
I-405 Northbound							
Culver Drive to Jamboree Road	6	12,744	33.1	D	9,356	24.3	C
Jamboree Road to MacArthur Boulevard	6	13,475	35.0	E	9,893	25.7	C
MacArthur Boulevard to Jct. SR-55	6	13,749	35.7	E	10,094	26.2	D
I-405 Southbound							
Jct. SR-55 to MacArthur Boulevard	6	10,663	27.7	D	13,041	33.9	D
MacArthur Boulevard to Jamboree Road	5	10,450	32.6	D	12,781	39.9	E
Jamboree Road to Culver Drive	5	9,884	30.8	D	12,088	37.7	E
SR-73 Northbound							
Bonita Cyn Dr/Ford Rd to Jamboree Road	3	2,579	14.0	B	3,520	19.1	C
Jamboree Road to Jct. SR-55	4	6,892	27.5	D	9,405	37.5	E
SR-73 Southbound							
Jct. SR-55 to Jamboree Road	4	7,737	30.8	D	7,250	28.9	D
Jamboree Road to Bonita Cyn Dr/Ford Rd	3	2,896	15.8	B	2,714	14.8	B

Source: Kimley-Horn and Associates, 2012.

Applicable Plans and Regulations

City of Newport Beach General Plan - Circulation Element

The Circulation Element, which was updated in 2006, governs the long-term mobility system in the City of Newport Beach. The Circulation Element includes goals and policies that are closely correlated with the Land Use Element and are intended to provide the best possible balance between the City's future growth and land use development, roadway size, traffic service levels, and community character. Applicable transportation plans and policies relating to transportation and a documentation of project consistency for each of the policies is included in previous Table 5.9-1, *General Plan Consistency Analysis,* in Section 5.9, *Land Use and Planning.*

City of Newport Beach Municipal Code

Chapter 12.62, *Temporary Street Closure*, of the Municipal Code outlines the permit requirements and process for the temporary closure of public streets within the City. For example, the provisions outlined in Section 12.62.030, *Issuance of Permit*, state that the City Manager may issue a permit if he/she determines that the granting of the application for the time and location requested will not unreasonably inconvenience the public, create unusual traffic or policing problems, or interfere with the peace and quiet of the surrounding neighborhood.

Chapter 13.01, *Street Construction Permits*, outlines the provisions for street construction permits.

Chapter 15.38, *Fair Share Traffic Contribution Ordinance*, of the Municipal Code has been established by the City Council to establish a fee—based upon the unfunded cost to implement the Master Plan of Streets and Highways—to be paid in conjunction with the issuance of a building permit. The ordinance sets forth procedures for calculating the fair-share amounts for residential projects, hotel/motels, and office/retail/commercial uses, which are adopted by City Council resolution.

Chapter 15.40, *Traffic Phasing Ordinance,* of the Municipal Code has been established by the City Council to ensure that the effects of new development projects are mitigated by developers as they occur. Specifically the ordinance was established to:

- Provide a uniform method of analyzing and evaluating the traffic impacts of projects that generate a substantial number of average daily trips and/or trips during the morning or evening peak hour period;
- To identify the specific and near-term impacts of project traffic and ensure that development is phased with identified circulation system improvements;
- To ensure that project proponents, as conditions of approval pursuant to this chapter, make or fund circulation system improvements that mitigate the specific impacts of project traffic on primary intersections at or near the time the project is ready for occupancy; and
- To provide a mechanism for ensuring that project proponents' cost of complying with traffic-related conditions of project approval is roughly proportional to project impacts.

The ordinance also clarifies the standards and required findings for project approvals. In accordance with Section 15.40.030 of the Municipal Code, there are provisions for Comprehensive Phase Land Use Development and Circulation System Improvement Plans such as the Circulation Improvement and Open Space Agreement (CIOSA) (see DEIR Section 5.8, *Land Use*).

Orange County Congestion Management Plan

The CMP requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System. Per the CMP guidelines, this number is based on the desire to analyze any impacts that comprise 3 percent or more of the existing CMP highway system facilities' capacity. The CMP highway system includes specific roadways, which include state highways and super streets, which are now known as smart streets, and CMP arterial monitoring locations/intersections. Therefore, the CMP traffic impact analysis (TIA) requirements relate only to the designated CMP highway system. The CMP system in Newport Beach consists of the following roadways:

- MacArthur Boulevard (Jamboree Road to Coast Highway)
- Jamboree Road (between City limit and MacArthur Boulevard)
- Coast Highway (throughout)
- Newport Boulevard (from north City limit to Coast Highway)

5.14.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project could:

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: T-3, T-4, and T-5. These impacts will not be addressed in the following analysis.

Significance Criteria

The following significance criteria has been established to evaluate environmental impacts in this EIR.

Local Jurisdiction Intersections

City of Newport Beach

To determine whether or not the addition of project-generated trips at a signalized study intersection results in a significant impact, the City of Newport Beach has adopted the following threshold of significance:

- A significant impact would occur when the addition of project-generated trips causes the level of service at a study intersection to deteriorate from acceptable (LOS “D”, except for intersections on a CMP facility, and designated intersections in the Airport Area, where LOS “E” is acceptable) to a deficient level of service.

- A significant impact would occur when the addition of project-generated trips increases the ICU at a study intersection by 1 percent or more (V/C increases by 0.010 or more), worsening a projected baseline condition of LOS “E” or “F”.

For unsignalized intersections operating at an unacceptable level of service, a signal warrant analysis was conducted to determine if a signal is warranted. The signal warrant analysis was conducted according to the California Manual of Uniform Traffic Control Devices (MUTCD), Warrant 3 – Peak Hour warrant parameters, using the peak hour intersection volumes.

City of Irvine

To determine whether or not the addition of project-generated trips at a signalized study intersection results in a significant impact, the City of Irvine has adopted the following threshold of significance:

- A significant impact would occur when the intersection exceeds the acceptable level of service (LOS "D" except if located in the IBC, where LOS "E" is acceptable) in the baseline condition and the impact of the development is greater than or equal to 2 percent (V/C increase by 0.02 or more), or;

- The project increases the ICU by 1 percent or more (V/C increases by 0.01 or more) at a study intersection, causing it to become deficient.

Should a significant impact occur, project mitigation would be required to bring the intersection back to baseline conditions, at a minimum. There are no unsignalized intersections in the study area in the City of Irvine.

CMP Intersections

A project impact would occur if the project would cause a CMP intersection to fall below LOS E and cause a cumulative increase of more than 0.10 in V/C ratio at any CMP intersection with an established LOS standard worse than LOS E.

State Highway Intersections

For state-controlled intersections, level of service standards and impact criteria specified by Caltrans will apply. The Caltrans Guide for the Preparation of Traffic Impact Studies states that "Caltrans endeavors to maintain a target Level of Service at the transition between LOS 'C' and LOS 'D' on State highway facilities. If an existing State highway facility is operating at less than the target LOS, the existing Level of Service is to be maintained."

Freeway Mainline Segments

The target level of service for freeway mainline segments is LOS "D", which is a density of between 35 and 45 pc/mi/ln. If the existing density exceeds the target LOS, the existing level of service is to be maintained.

5.14.3 Environmental Impacts

Future traffic forecasts have been developed for existing, near term, and long-range scenarios. Traffic for near-term scenarios was evaluated for two analysis conditions—Opening Year with Existing plus Growth plus Committed Projects traffic, representing analysis of the conditions required by the City of Newport Beach TPO, and Opening Year with Committed plus Cumulative Projects, as required by CEQA. The TIA prepared for the proposed project provides a detailed analysis of potential traffic and circulation impacts for each project phase. Each study intersection and roadway segment was analyzed for the following scenarios:

- Existing Conditions
- Existing plus Project Conditions
- TPO Analysis: Year 2018 with Committed Projects without Project
- TPO Analysis: Year 2018 with Committed Projects with Phase 1
- Cumulative Analysis: Year 2018 with Cumulative Projects without Project
- Cumulative Analysis: Year 2018 with Cumulative Projects with Phase 1
- Cumulative Analysis: Year 2021 with Cumulative Projects without Project

- Cumulative Analysis: Year 2021 with Cumulative Projects with Full Project (Phase 1 and Phase 2)

TPO requirements differ from CEQA requirements in that, typically, the TPO's focus is on conditions one year after project occupancy, or five years after project approval for larger projects that are not expected to be completed within five years, which would be Year 2018. In addition, the TPO analysis includes only "committed projects." Committed projects are projects in the City of Newport Beach that have been approved, as opposed to "cumulative projects," which are reasonable and foreseeable projects in Irvine and Newport Beach. A detailed discussion of the provisions of the TPO analysis is included in Impact Statement 5.14-2 below and in pages 34 to 41 of the TIA (see Appendix M). A detailed discussion of the assumptions utilized in the Cumulative Analysis is included in Impact Statement 5.14-1 below, and in pages 44 to 55 of the TIA.

The impact analysis that follows includes:

- Project trip generation for Phases 1 and 2
- Project trip distribution
- Intersection level of service impacts according to local jurisdictions, CMP, and state highway requirements.
- Freeway segment impacts
- Circulation and access considerations

The following analysis summarizes project impacts associated with Phase 1, and conditions with buildout of the project (Phase 2). For additional detail on conditions during the interim phases, please refer to the TIA in Appendix M.

Project Trip Generation and Distribution

Trip generation estimates for the proposed project were developed using the Institute of Traffic Engineers' (ITE) *Trip Generation* (8th ed.). The proposed project components and trip generation estimates for the Uptown Newport Project are as follows:

Phase 1:

- Multifamily Residential: 680 dwelling units. The project may include a variety of multifamily residential product types, e.g., condominium, apartment, townhomes, etc.
- Commercial (Retail & Restaurant): 11,500 square feet, consisting of 5,500 square feet of specialty retail use and 6,000 square feet of quality restaurant.
- A 10 percent reduction in the trips for the commercial development was applied to account for pass-by trips, as directed by City of Newport Beach staff.

Trip generation estimates for Phase 1, including trip credits for the existing development to be removed and the new trips for Phase 1 project development, are shown on Table 5.14-6. As shown, Phase 1 is projected to generate an additional 5,012 daily trips, 317 during the AM peak hour, and 443 during the PM peak hour.

Table 5.14-6
Summary of Phase 1 Trip Generation

Land Use	ITE Code	Unit	Trip Generation Rates [1]						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Apartment [2]	220	DU	6.65	0.102	0.408	0.510	0.403	0.217	0.620
Specialty Retail Center [3]	814	KSF	44.32	0.610	0.390	1.000	1.192	1.518	2.710
Quality Restaurant [4]	931	KSF	89.95	0.664	0.146	0.810	5.018	2.472	7.490
Land Use	**Quantity**	**Unit**	**Trip Generation Estimates**						
			Daily	**AM Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Trips for Existing TowerJazz Facility to Be Demolished for Phase 1									
4311 Jamboree Building [5]			270	33	4	38	6	31	37
Proposed Uptown Newport Phase 1 Development									
Apartment [2]	680	DU	4,522	69	277	346	274	148	422
Specialty Retail Center [3]	5.50	KSF	244	3	2	5	7	8	15
Quality Restaurant [4]	6.00	KSF	540	4	1	5	30	15	45
	Subtotal - Phase 1		**5,306**	**76**	**280**	**356**	**311**	**171**	**482**
Retail Adjustment Factor [6]	10%		-24	0	0	-1	-1	-1	-2
	Total Phase 1 Trips		**5,282**	**76**	**280**	**355**	**310**	**170**	**480**
Net New Phase 1 Trips			**5,012**	**43**	**276**	**317**	**304**	**139**	**443**

Source: Kimley-Horn and Associates, 2012.
KSF = Thousand Square Feet
DU = Dwelling Unit
1 Source: Institute of Transportation Engineers, *Trip Generation*, 8th ed.
2 The project may consist of a combination of multifamily residential product types, including condominium, apartment, townhome, etc. For a most conservative trip generation analysis, the ITE trip generation rates for "Apartment" are used here.
3 ITE *Trip Generation* does not provide AM peak hour rates for a Specialty Retail Center. Therefore, the AM peak hour rates for Land Use Category 820 - Shopping Center were used to estimate AM peak hour trips.
4 Directional distribution for the AM peak hour is based on the AM peak hour of generator.
5 Source: Project site driveway counts.
6 ITE *Trip Generation* indicates pass-by for a shopping center is 34% in the PM peak hour. A 10% reduction is assumed for each peak hour, as directed by the City of Newport Beach staff.

Phase 2:

Phase 2 represents buildout of the proposed project (Phase 1 plus Phase 2).

- Multi-Family Residential Units: 1,244 units. The project may include a variety of multifamily residential product types, e.g., condominium, apartment, townhomes, etc. For a most conservative trip generation analysis, the ITE trip generation rates for “Apartment” are applied to all 1,244 residential units.

- Commercial (Retail & Restaurant): 11,500 square feet, consisting of 5,500 square feet of specialty retail use and 6,000 square feet of quality restaurant.

- A 10 percent reduction in the trips for the commercial development was applied to account for pass-by trips, as directed by City of Newport Beach staff.

Trip generation estimates for the entire Uptown Newport project, including trip credits for removing the entire existing development on the site and adding the new trips for the entire Uptown Newport project, are shown on Table 5.14-7.

Table 5.14-7
Summary of Full Project Trip Generation

Land Use	ITE Code	Trips per	Trip Generation Rates [1]						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Apartment [2]	220	DU	6.65	0.102	0.408	0.510	0.403	0.217	0.62
Specialty Retail Center [3]	814	KSF	44.32	0.610	0.390	1.000	1.192	1.518	2.71
Quality Restaurant [4]	931	KSF	89.95	0.664	0.146	0.810	5.018	2.472	7.49
Land Use	**Quantity**	**Unit**	**Trip Generation Estimates**						
			Daily	**AM Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Trips for Total TowerJazz Facility to Be Demolished for Entire Uptown Newport									
4311 & 4321 Jamboree Buildings [5]			747	90	12	102	15	88	102
Proposed Uptown Newport Total Development									
Apartment [2]	1,244	DU	8,273	127	508	635	501	270	771
Specialty Retail Center [3]	5.50	KSF	244	3	2	5	7	8	15
Quality Restaurant [4]	6.00	KSF	540	4	1	5	30	15	45
		Subtotal	**9,057**	**134**	**511**	**645**	**538**	**293**	**831**
Retail Adjustment Factor [6]	10%		-24	0	0	-1	-1	-1	-2
		Total Project Trips	**9,033**	**134**	**511**	**644**	**537**	**292**	**829**
		Net New Total Project Trips	**8,286**	**44**	**499**	**542**	**522**	**204**	**727**

KSF = Thousand Square Feet DU = Dwelling Unit
1 Source: Kimley Horn and Associates, 2012.
2 The project may consist of a combination of multifamily residential product types, including condominium, apartment, townhome, etc. For a most conservative trip generation analysis, the ITE trip generation rates for "Apartment" are used here.
3 ITE *Trip Generation* does not provide AM peak hour rates for a Specialty Retail Center. Therefore, the AM peak hour rates for Land Use Category 820 - Shopping Center were used to estimate AM peak hour trips.
4 Directional distribution for the AM Peak Hour is based on the AM Peak Hour of Generator.
5 Source: Project site driveway counts
6 ITE *Trip Generation* indicates pass-by for a shopping center is 34% in the PM peak hour. A 10% reduction is assumed for each peak hour, as directed by the City of Newport Beach staff.

As shown on Table 5.14-7, buildout of the proposed project (Phase 2) would generate an additional 8,286 daily trips, 542 during the AM peak hour, and 727 during the PM peak hour. Review of the trip generation estimates for the existing office and industrial development on the site, compared to the proposed project's, reveals that the proposed development would result in a shift of traffic patterns to and from the site. The traffic patterns for the existing office and industrial development are typical of employment uses, with a heavier traffic flow toward the employment uses (inbound) in the morning peak hour, and heavier traffic flow away from the site (outbound) in the evening peak hour. The proposed Uptown Newport project would consist of primarily residential uses, which would have the reverse traffic patterns—heavier traffic flow outbound from the residential uses in the morning peak hour, and heavier traffic flow inbound toward the site in the evening peak hour. As a result, while the proposed project would result in an overall increase in daily

trips, there would be a reduction of trips on some intersection movements and an increase on others in each of the morning and evening peak hours.

Project Trip Distribution and Assignments

Project trip distribution assumptions for the project site were developed individually for the existing industrial and office uses on the site, and for the proposed Uptown Newport project. Trip distribution assumptions for the existing employment uses were based on observed traffic patterns to and from the project site, and on likely origins and destinations of project patrons and employees. Since the existing industrial uses on the site would be removed, trips related to the existing industrial uses were distributed as negative trips. Trip distribution assumptions for the existing industrial uses are shown on Figure 5.14-4**.**

Trip distribution assumptions for the proposed residential development were based on likely local and regional destinations in the project area and the transportation network available for those trips. Distribution assumptions were submitted to City staff for review and concurrence. Trip distribution assumptions for the proposed Uptown Newport project are shown on Figure 5.14-5.

Based on these two trip distribution patterns, the net new trips to be added (or subtracted, if appropriate, due to the shift in traffic patterns from employment to residential) to the street system by the proposed project were combined and calculated. The resulting project trips are provided in Figure 10 and Figure 11 in the TIA, included in Appendix M.

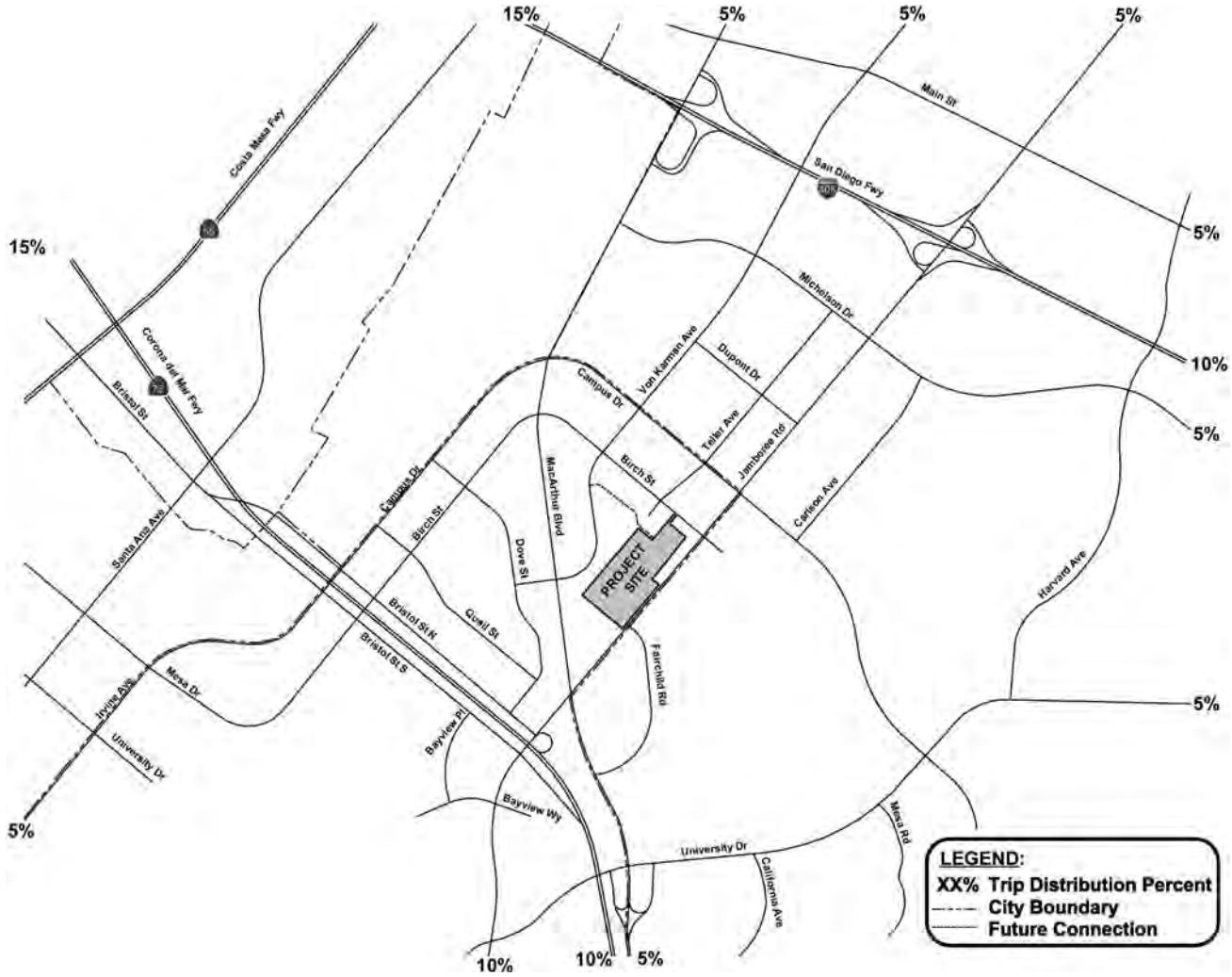
Existing plus Project Condition

This section presents results of the analysis of the impacts associated with adding project-related trips to existing traffic volumes. The Existing Plus Project scenario is a hypothetical scenario which assumes that the project would be fully implemented at the present time, assuming full development of the project (Phase 1 and Phase 2) and full absorption of project traffic on the existing circulation system.

Intersection Operations

The intersection analysis was conducted, and the results are summarized in Table 5.14-8. With the addition of project traffic to existing conditions, all study intersections would continue to operate at an acceptable level of service. The addition of project traffic would not cause a significant impact at any study intersection.

Trip Distribution (Existing)



NOT TO SCALE

Source: Kimley-Horn and Associates Inc 2012

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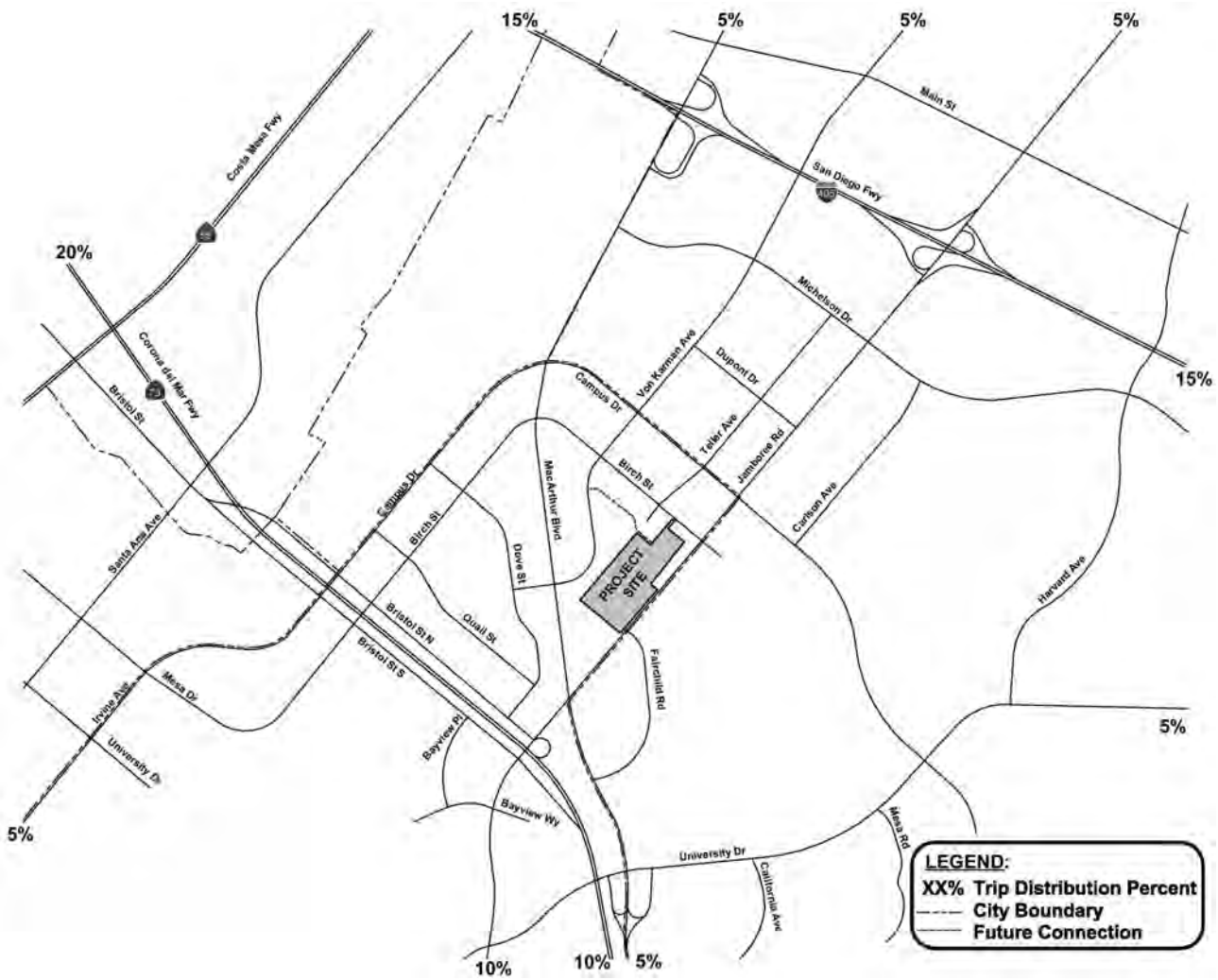
Trip Distribution (Proposed)



NOT TO SCALE

Source: Kimley-Horn and Associates Inc 2012

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Table 5.14-8
Summary of Intersection Operations
Existing plus Project Conditions

	Intersection	U/S	Without Project				With Project[1]				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
			ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
1	MacArthur Blvd/Main St[a]	S	0.49	A	0.65	B	0.49	A	0.66	B	0.000	0.004	No	No
2	MacArthur Blvd/I-405 NB Ramps[a]	S	0.81	D	0.72	C	0.81	D	0.73	C	0.004	0.007	No	No
3	MacArthur Blvd/I-405 SB Ramps[a]	S	0.59	A	0.65	B	0.59	A	0.66	B	0.003	0.019	No	No
4	MacArthur Blvd/Michelson Dr[a]	S	0.68	B	0.65	B	0.69	B	0.66	B	0.011	0.005	No	No
5	MacArthur Blvd/Campus Dr[a]	S	0.48	A	0.60	A	0.49	A	0.60	A	0.010	0.000	No	No
6	MacArthur Blvd/Birch St	S	0.34	A	0.46	A	0.35	A	0.46	A	0.005	0.001	No	No
7	MacArthur Blvd/Von Karman Ave	S	0.54	A	0.44	A	0.54	A	0.44	A	0.000	0.004	No	No
8	MacArthur Blvd/Jamboree Rd [a,b]	S	0.59	A	0.67	B	0.62	B	0.72	C	0.026	0.046	No	No
9	MacArthur Blvd/Fairchild Rd[a]	S	0.71	C	0.72	C	0.72	C	0.73	C	0.010	0.008	No	No
10	MacArthur Blvd NB Off-ramp/University Dr	S	0.44	A	0.54	A	0.44	A	0.54	A	0.000	0.000	No	No
11	MacArthur Blvd SB Off-ramp/University Dr	S	0.38	A	0.32	A	0.38	A	0.32	A	0.000	0.000	No	No
12	Von Karman Ave/Main St[a]	S	0.64	B	0.70	B	0.64	B	0.71	C	0.001	0.003	No	No
13	Von Karman Ave/Michelson Dr[a]	S	0.44	A	0.64	B	0.45	A	0.64	B	0.008	0.003	No	No
14	Von Karman Ave/Dupont Dr[a]	S	0.34	A	0.41	A	0.34	A	0.41	A	0.008	0.003	No	No
15	Von Karman Ave/Campus Dr[aa]	S	0.47	A	0.59	A	0.48	A	0.60	A	0.013	0.007	No	No
16	Von Karman Ave/Birch St	S	0.29	A	0.35	A	0.30	A	0.35	A	0.014	0.004	No	No
17	Teller Ave/Campus Dr[a]	S	0.27	A	0.41	A	0.27	A	0.41	A	0.007	0.008	No	No
18	Teller Ave/Birch St	U	12.10	B	11.50	B	12.70	B	12.10	B	0.600	0.600	No	No
19	Jamboree Rd/Main St[a]	S	0.70	B	0.61	B	0.70	B	0.61	B	-0.001	0.001	No	No
20	Jamboree Rd/I-405 NB Ramps [a,b]	S	0.64	B	0.62	B	0.65	B	0.64	B	0.007	0.016	No	No

Table 5.14-8
Summary of Intersection Operations
Existing plus Project Conditions

			Without Project				With Project[1]				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
21	Jamboree Rd/I-405 SB Ramps [a,b]	S	0.88	D	0.81	D	0.88	D	0.81	D	0.002	0.002	No	No
22	Jamboree Rd/Michelson Dr[a]	S	0.61	B	0.68	B	0.61	B	0.69	B	0.001	0.007	No	No
23	Jamboree Rd/Dupont Dr[a]	S	0.61	B	0.63	B	0.61	B	0.64	B	0.000	0.006	No	No
24	Jamboree Rd/Campus Dr[a]	S	0.67	B	0.63	B	0.68	B	0.66	B	0.008	0.030	No	No
25	Jamboree Rd/Birch St	S	0.46	A	0.48	A	0.47	A	0.50	A	0.014	0.018	No	No
26	Jamboree Rd/Fairchild Rd[a]	S	0.65	B	0.63	B	0.70	B	0.69	B	0.046	0.066	No	No
27	Jamboree Rd/Bristol St North	S	0.29	A	0.46	A	0.32	A	0.48	A	0.028	0.013	No	No
28	Jamboree Rd/Bristol St South	S	0.45	A	0.52	A	0.46	A	0.54	A	0.010	0.019	No	No
29	Jamboree Rd/Bayview Way	S	0.35	A	0.39	A	0.35	A	0.39	A	0.001	0.008	No	No
30	Jamboree Rd/University Dr	S	0.56	A	0.52	A	0.57	A	0.53	A	0.011	0.011	No	No
31	Carlson Ave/Michelson Dr[a]	S	0.48	A	0.60	A	0.48	A	0.60	A	-0.001	-0.001	No	No
32	Carlson Ave/Campus Dr[a]	S	0.39	A	0.72	C	0.39	A	0.72	C	0.000	-0.003	No	No
33	Harvard Ave/Michelson Dr	S	0.65	B	0.77	C	0.64	B	0.77	C	-0.002	-0.001	No	No
34	Campus Dr/Bristol St North	S	0.48	A	0.71	C	0.50	A	0.72	C	0.016	0.007	No	No
35	Birch St/Bristol St North	S	0.54	A	0.56	A	0.56	A	0.57	A	0.024	0.012	No	No
36	Campus Dr/Bristol St South	S	0.59	A	0.48	A	0.58	A	0.49	A	-0.002	0.016	No	No
37	Birch St/Bristol St South	S	0.39	A	0.41	A	0.39	A	0.42	A	-0.001	0.005	No	No
38	Bayview Pl/Bristol St South	S	0.40	A	0.49	A	0.41	A	0.51	A	0.004	0.020	No	No
39	Irvine Ave/Mesa Dr	S	0.32	A	0.49	A	0.32	A	0.49	A	0.000	0.002	No	No
40	University Dr/Campus Dr	S	0.70	B	0.73	C	0.70	B	0.73	C	0.000	0.000	No	No

Table 5.14-8
Summary of Intersection Operations
Existing plus Project Conditions

Intersection		U/S	Without Project				With Project[1]				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
			ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
41	Mesa Rd/University Dr	S	0.59	A	0.62	B	0.59	A	0.62	B	0.000	0.000	No	No
42	California Ave/University Dr	S	0.58	A	0.61	B	0.58	A	0.61	B	0.000	0.000	No	No
43	Birch St/Driveway	U	8.80	A	11.30	B	10.50	B	13.20	B	1.700	1.900	No	No

Source: Kimley-Horn and Associates, 2012.
a = Intersection is located within the Irvine Business Complex Vision Plan Area (LOS E Acceptable)
b = Orange County Congestion Management Program (CMP) intersection (LOS E Acceptable)
S = Signalized, U=Unsignalized
Bold values indicate intersections operating at an unacceptable LOS.
Intersection operation is expressed in average seconds of delay per vehicle during the peak hour for unsignalized intersections using HCM 2000 Methodology and is expressed in volume-to-capacity (V/C) for signalized intersections using ICU Methodology.
[1] Project Buildout at completion of Phase 2.

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Project Site Access and Circulation

Currently, access to the project site is provided at two locations along Jamboree Road and one location along Birch Street. On Jamboree Road, access to the site is via a four-way signalized intersection at Jamboree Road and Fairchild Drive, with the project site entrance forming the fourth leg of the intersection, and a stop-controlled intersection approximately 800 feet north of this signalized intersection. The unsignalized intersection currently allows all turning movements to and from Jamboree Road. On Birch Street, access to the site is provided at a stop-controlled intersection approximately 560 feet west of the signalized intersection of Jamboree Road and Birch Street. All turning movements are allowed at this driveway. Access to this driveway to and from the property is via an access easement across the adjacent property immediately to the north (between the property and Birch Street.)

Phase 1

The proposed vehicular circulation for Phase 1 is shown on Figure 3-8, *Phase 1 Circulation Plan* (Chapter 3, *Project Description*). Vehicular access for the Phase 1 development would only be available on Jamboree Road. The existing signalized intersection at Fairchild Road would remain, and the unsignalized intersection to the north would be relocated approximately 175 feet to the north. The northern intersection would allow right-turn-in-and-out and left-turn-in movements. Left turns out would be prohibited by signage as well as a raised median on Jamboree Road.

The main entry would be 46 feet wide with one inbound lane, and two outbound lanes. The main entry provides for approximately 300 feet of queuing before the 90 degree bend. With two outbound lanes, this would provide sufficient queuing distance to accommodate the project's outbound peak hour traffic for Phase 1.

The interior streets would be 36 feet wide with sidewalks on both sides and would provide direct access to the parking areas and garage entries associated with each building. The internal street system, as shown, is in compliance with City standards that require a minimum of 36 feet curb to curb for private streets with parking on both sides of the street, and a minimum of 32 feet for streets with no parking or parking on one side of the street.

The project's street system would be privately owned and maintained, but would be open to the public. A gated emergency-only access to the adjacent Koll property would be provided at the southwest corner of the site. Connections to the adjacent TowerJazz building and parking lot would also be restricted. Therefore, there would be no vehicular access from Project Phase 1 to the Birch Street driveway. As with existing conditions, TowerJazz employees would continue to utilize the Birch Street easement. TowerJazz employees also have access to and from the northern Jamboree Road driveway.

Phase 2

The proposed vehicular circulation for Phase 2 is shown on Figure 3-9, *Phase 2 Circulation Plan* (Chapter 3, *Project Description*). With development of the entire site, the roadway system would be expanded to include access to the rest of the site and reconnection to Birch Street via the existing access easement.

The project access at Birch Street intersection is currently operating at LOS A in the morning peak hour and LOS B in the evening peak hour. The peak hour turning movement volumes reflect the predominance of employment uses on the site, with very light outbound traffic volumes and heavier traffic flows inbound in the morning peak hour, with a reverse pattern in the evening peak hour. This traffic condition would be removed with the development of the Uptown Newport project and replaced with residential traffic flows. As discussed

earlier, residential development would have the reverse traffic patterns—heavier traffic flow outbound from the project site in the morning peak hour, and heavier traffic flow inbound toward the project in the evening peak hour. The intersection is forecast to operate at LOS B and C in the morning and evening peak hours, respectively. The driveway would continue to operate at an acceptable level of service as an unsignalized intersection. The intersection would accommodate the changes in traffic patterns resulting from the proposed project, and would not require signalization or widening.

The intersections at Jamboree Road would not be modified from the condition for Phase 1 described above. The main signalized entry on Jamboree Road at Fairchild would still provide sufficient queuing distance before the 90-degree bend to accommodate the project's outbound peak hour traffic for both Phase 1 and Phase 2.

The site plan shows on-street diagonal parking adjacent to the retail portion of the project is being proposed. The location, operation, and configuration of the parking and drive aisles in this area shall be reviewed and approved by the Public Works department during the site development review process.

Access Easement to Birch Street

The design of the project provides for primary and secondary project ingress and egress from Jamboree Road, but also includes a third access drive to and from Birch Street, utilizing an access easement established by an express grant of easement recorded in 1978 (the "Access Easement"). Plaza is an owners association that manages the existing four-building office condominium project on Birch Street, immediately adjacent to the east of the project site (Plaza property). The access easement traverses the northwesterly 33 feet of the Plaza property. The access easement replaces an earlier 1973 easement agreement between the property owners in which use by Uptown Newport's predecessors-in-interest had primary use and the fee owner's shared use was residual in nature. The access easement area has been historically shared by both the current uses occupying the project site and the Plaza property for vehicular ingress and egress to Birch Street (although the grant of easement includes rights of pedestrian passage as well).

Freeway Mainline Operations

Analysis of freeway mainline segments in the vicinity of the project was conducted in accordance with the Caltrans Guide for the Preparation of Traffic Impact Studies, which specifies application of the HCM methodology for freeway analysis. Freeway analysis results are expressed in terms of density, which measures the number of passenger cars per lane mile (pc/mi/ln) on the freeway mainline. The target level of service for freeway mainline segments is LOS "D", which is a density of between 35 and 45 pc/mi/ln. If the existing density exceeds the target LOS, the existing level of service is to be maintained. Freeway mainline analysis was conducted on I-405 between Culver Drive and SR-55 and on SR-73 between Bonita Canyon Drive and SR-55. Peak hour freeway volumes were derived from the Caltrans website. The most recent data available was 2010. A conservative growth factor of 1.0 percent per year was applied to 2010 traffic volumes to derive Existing and Future Year cumulative baseline traffic volumes. The results of the analysis are expressed in terms of vehicular density in each peak hour, in each direction, as shown on Table 5.14-9 below.

Table 5.14-9
Summary of Freeway Mainline Operations
Existing plus Project Conditions (Phases 1 and 2)

Freeway Segment	Lanes	AM Peak Hour			PM Peak Hour		
		Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
I-405 Northbound							
Culver Drive to Jamboree Road	6	12,755	33.2	D	9,435	24.5	C
Jamboree Road to MacArthur Boulevard	6	13,504	35.1	E	9,900	25.7	C
MacArthur Boulevard to Jct. SR-55	6	13,824	35.9	E	10,125	26.3	D
I-405 Southbound							
Jct. SR-55 to MacArthur Boulevard	6	10,672	27.7	D	13,119	34.1	D
MacArthur Boulevard to Jamboree Road	5	10,447	32.6	D	12,811	40.0	E
Jamboree Road to Culver Drive	5	9,959	31.1	D	12,123	37.8	E
SR-73 Northbound							
Bonita Cyn Dr/Ford Rd to Jamboree Road	3	2,579	14.0	B	3,520	19.1	C
Jamboree Road to Jct. SR-55	4	6,992	27.9	D	9,450	37.7	E
SR-73 Southbound							
Jct. SR-55 to Jamboree Road	4	7,737	30.8	D	7,357	29.3	D
Jamboree Road to Bonita Cyn Dr/Ford Rd	3	2,896	15.8	B	2,714	14.8	B

Source: Kimley-Horn and Associates, 2012.

When compared to existing conditions (shown on Table 5.14-5), no new freeway segments would become deficient with the project. All segments identified as deficient under existing conditions would continue to be deficient with the project.

Impact Threshold Analysis

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.14-1: ***THE PROPOSED PROJECT AT BUILDOUT WOULD GENERATE AN ADDITIONAL 8,286 DAILY TRIPS, 542 DURING THE AM PEAK HOUR, AND 727 DURING THE PM PEAK HOUR. THESE PROJECT-RELATED TRIPS WOULD NOT CONFLICT WITH APPLICABLE CITY PLANS GOVERNING THE PERFORMANCE OF THE AREA-WIDE CIRCULATION SYSTEM. [THRESHOLD T-1]***

Impact Analysis: The following analysis is consistent with CEQA requirements to evaluate the impacts with the proposed project and reasonable and foreseeable projects in the cities of Newport Beach and Irvine. The impact analysis per TPO requirements is discussed in Impact 5.14-2. Future Year Cumulative conditions were analyzed for the following scenarios:

- Year 2018 with Cumulative Projects without Project
- Year 2018 with Cumulative Projects with Phase 1
- Year 2021 with Cumulative Projects without Project
- Year 2021 with Cumulative Projects with Phase 2 Project (Buildout)

Future Year Cumulative Conditions peak hour traffic volumes for the City of Newport Beach intersections were developed by adding an ambient growth rate of 1 percent per year to existing volumes on primary roadways and then adding peak hour traffic volumes from the cumulative projects. For the City of Irvine intersections, City of Irvine transportation planning staff provided peak hour traffic forecasts from the Irvine Traffic Analysis Model (ITAM) which is maintained and operated by the City. The ITAM forecasts include the effects of ambient traffic growth and traffic from cumulative projects. ITAM forecasts represent year 2015 traffic volumes; therefore, Irvine staff recommended applying a growth factor of 1.5 percent per year to develop year 2018 and 2021 forecasts.

Cumulative projects consist of the committed projects (approved projects in the City of Newport Beach) as well as other projects that are in various stages of the application and approval process, but have not yet been approved. These projects are considered to be “reasonably foreseeable” projects and must therefore be analyzed for CEQA purposes. The cumulative projects list includes the committed projects, plus pending projects in the City of Newport Beach, as well approved and pending projects in the City of Irvine. A summary of cumulative projects used in this analysis is provided on Table 4-2, and they are shown on Figure 4-4 in Chapter 4, *Environmental Setting*.

Additional details for the trip generation and trip distribution assumptions used for the approved and cumulative projects are provided in the Traffic Impact Analysis (Appendix M).

The following discusses the impacts of Phase 1 and Phase 2 for the 2018 and 2021 scenarios presented above.

Phase 1

Year 2018 Cumulative Conditions without and with Phase 1 peak hour intersection operations are summarized on Table 5.14-10.

Table 5.14-10
Summary of Intersection Operations
Year 2018 Cumulative Conditions with Phase I

	Intersection	U/S	Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
			ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
1	MacArthur Blvd/Main St[a]	S	0.60	A	0.78	C	0.60	A	0.79	C	0.001	0.002	No	No
2	MacArthur Blvd/I-405 NB Ramps[a]	S	0.77	C	0.71	C	0.77	C	0.71	C	0.002	0.001	No	No
3	MacArthur Blvd/I-405 SB Ramps[a]	S	0.67	B	0.80	C	0.67	B	0.81	D	0.001	0.009	No	No
4	MacArthur Blvd/Michelson Dr[a]	S	0.64	B	0.91	E	0.64	B	0.92	E	0.001	0.003	No	No
5	MacArthur Blvd/Campus Dr[a]	S	0.64	B	0.89	D	0.65	B	0.89	D	0.004	-0.005	No	No
6	MacArthur Blvd/Birch St	S	0.40	A	0.52	A	0.40	A	0.52	A	0.003	0.004	No	No
7	MacArthur Blvd/Von Karman Ave	S	0.65	B	0.52	A	0.65	B	0.53	A	0.000	0.007	No	No
8	MacArthur Blvd/Jamboree Rd[a,b]	S	0.76	C	0.85	D	0.77	C	0.88	D	0.015	0.027	No	No
9	MacArthur Blvd/Fairchild Rd[a]	S	0.88	D	0.69	B	0.89	D	0.70	B	0.007	0.006	No	No
10	MacArthur Blvd NB Off-ramp/University Dr	S	0.53	A	0.63	B	0.53	A	0.63	B	0.000	0.000	No	No
11	MacArthur Blvd SB Off-ramp/University Dr	S	0.39	A	0.33	A	0.39	A	0.33	A	0.000	0.000	No	No
12	Von Karman Ave/Main St[a]	S	0.81	D	0.87	D	0.81	D	0.87	D	0.001	0.002	No	No
13	Von Karman Ave/Michelson Dr[a]	S	0.70	B	0.91	E	0.70	B	0.91	E	0.004	0.004	No	No

Table 5.14-10
Summary of Intersection Operations
Year 2018 Cumulative Conditions with Phase I

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
14	Von Karman Ave/Dupont Dr[a]	S	0.51	A	0.62	B	0.52	A	0.63	B	0.004	0.004	No	No
15	Von Karman Ave/Campus Dr[a]	S	0.68	B	0.90	D	0.69	B	0.91	E	0.007	0.003	No	No
16	Von Karman Ave/Birch St	S	0.33	A	0.40	A	0.33	A	0.40	A	0.000	-0.001	No	No
17	Teller Ave/Campus Dr[a]	S	0.49	A	0.54	A	0.50	A	0.55	A	0.006	0.006	No	No
18	Teller Ave/Birch St	U	12.30	B	11.60	B	12.30	B	11.60	B	0.000	0.000	No	No
19	Jamboree Rd/Main St[a]	S	0.91	E	1.00	E	0.91	E	1.00	E	0.000	0.002	No	No
20	Jamboree Rd/I-405 NB Ramps[a,b]	S	0.72	C	0.93	E	0.72	C	0.94	E	0.005	0.011	No	No
21	Jamboree Rd/I-405 SB Ramps[a,b]	S	1.03	**F**	0.95	E	1.03	**F**	0.96	E	0.002	0.009	No	No
22	Jamboree Rd/Michelson Dr[a]	S	0.80	C	1.17	**F**	0.81	D	1.17	**F**	0.001	0.005	No	No
23	Jamboree Rd/Dupont Dr[a]	S	0.75	C	0.76	C	0.75	C	0.78	C	0.002	0.016	No	No
24	Jamboree Rd/Campus Dr[a]	S	0.78	C	0.83	D	0.78	C	0.83	D	0.008	0.006	No	No
25	Jamboree Rd/Birch St	S	0.60	A	0.70	B	0.60	A	0.72	C	0.003	0.021	No	No
26	Jamboree Rd/Fairchild Rd[a]	S	0.71	C	0.76	C	0.76	C	0.79	C	0.051	0.029	No	No

Table 5.14-10
Summary of Intersection Operations
Year 2018 Cumulative Conditions with Phase I

	Intersection	U/S	Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
			ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
27	Jamboree Rd/Bristol St North	S	0.37	A	0.56	A	0.38	A	0.57	A	0.007	0.007	No	No
28	Jamboree Rd/Bristol St South	S	0.54	A	0.62	B	0.55	A	0.63	B	0.006	0.004	No	No
29	Jamboree Rd/Bayview Way	S	0.41	A	0.45	A	0.42	A	0.46	A	0.001	0.004	No	No
30	Jamboree Rd/University Dr	S	0.66	B	0.65	B	0.66	B	0.66	B	0.006	0.006	No	No
31	Carlson Ave/Michelson Dr[a]	S	0.62	B	0.86	D	0.62	B	0.86	D	-0.001	0.000	No	No
32	Carlson Ave/Campus Dr[a]	S	0.63	B	0.81	D	0.63	B	0.82	D	0.001	0.004	No	No
33	Harvard Ave/Michelson Dr	S	0.72	C	0.91	**E**	0.72	C	0.91	**E**	0.000	-0.001	No	No
34	Campus Dr/Bristol St North	S	0.52	A	0.73	C	0.53	A	0.73	C	0.007	0.002	No	No
35	Birch St/Bristol St North	S	0.54	A	0.57	A	0.56	A	0.58	A	0.013	0.006	No	No
36	Campus Dr/Bristol St South	S	0.62	B	0.50	A	0.62	B	0.51	A	-0.001	0.008	No	No
37	Birch St/Bristol St South	S	0.40	A	0.42	A	0.40	A	0.43	A	-0.001	0.003	No	No
38	Bayview Pl/Bristol St South	S	0.41	A	0.50	A	0.41	A	0.51	A	0.001	0.012	No	No
39	Irvine Ave/Mesa Dr	S	0.37	A	0.56	A	0.37	A	0.56	A	0.001	0.001	No	No

Table 5.14-10
Summary of Intersection Operations
Year 2018 Cumulative Conditions with Phase I

	Intersection	U/S	Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
			ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
40	University Dr/Campus Dr	S	0.84	D	0.83	D	0.85	D	0.83	D	0.008	0.004	No	No
41	Mesa Rd/University Dr	S	0.62	B	0.87	D	0.62	B	0.87	D	0.000	0.000	No	No
42	California Ave/University Dr	S	0.63	B	0.69	B	0.63	B	0.69	B	0.000	0.000	No	No
43	Birch St/Driveway	S	8.80	A	11.5	B	8.60	A	11.20	B	-0.200	-0.300	No	No

Source: Kimley-Horn and Associates, 2012.
S = Signalized, U=Unsignalized
Bold values indicate intersections operating at an unacceptable LOS.
Intersection operation is expressed in average seconds of delay per vehicle during the peak hour for unsignalized intersections using HCM 2000 Methodology and is expressed in volume-to-capacity (V/C) for signalized intersections using ICU Methodology.
[a] Intersection is located within the Irvine Business Complex Vision Plan Area (LOS E Acceptable).
[b] Orange County Congestion Management Program (CMP) intersection (LOS E Acceptable).

The following intersections would operate at an unacceptable level of service under Year 2018 Cumulative Conditions without and with Phase 1:

- 21. Jamboree Road at I-405 SB Ramps (AM: LOS F)
- 22. Jamboree Road at Michelson Drive (PM: LOS F)
- 33. Harvard Avenue at Michelson Drive (PM: LOS E)

The project impact increment does not exceed the significance threshold at any of these intersections, and would not result in a significant impact with the addition of Phase 1 trips. All other study intersections would operate at an acceptable level of service in both peak hours. The project-related impact of the project at some of the study intersections would be negative, reflecting the reduction in existing office trips, which would more than offset the trips that would be added as a result of the proposed residential development in the evening peak hour at some intersections. As a result, some intersections would improve slightly as a result of the project.

Phase 2

Year 2021 Cumulative Conditions without, and with Phase 2 (project buildout) peak hour intersection operations are summarized on Table 5.14-11.

The following intersections would operate at an unacceptable level of service under Year 2021 Cumulative Conditions without, and with Phase 2:

- 19. Jamboree Road at Main Street: (PM: LOS F)
- 21. Jamboree Road at I-405 SB Ramps (AM: LOS F)
- 22. Jamboree Road at Michelson Drive (PM: LOS F)
- 33. Harvard Avenue at Michelson Drive (PM: LOS E)

The project impact increment does not exceed the significance threshold at any of these intersections, and would not result in a significant impact with the addition of Phase 2 trips at project buildout. All other study intersections would operate at an acceptable level of service in both peak hours. The project-related impact of the project at some of the study intersections would be negative, once again reflecting the reduction in existing office trips, which would more than offset the trips that would be added as a result of the proposed residential development in the evening peak hour at some intersections. As a result, some intersections would improve slightly as a result of the project.

Additional details for peak hour turn movement volumes and assumptions used to calculate intersections levels of service are provided in the Traffic Impact Analysis (Appendix M).

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Table 5.14-11
Summary of Intersection Operations
Year 2021 Cumulative Conditions with Phase 2 (Project Buildout)

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
1	MacArthur Blvd/Main St [a]	S	0.62	B	0.82	D	0.62	B	0.82	D	0.001	0.003	No	No
2	MacArthur Blvd/I-405 NB Ramps [a]	S	0.80	C	0.74	C	0.80	C	0.75	C	0.004	0.002	No	No
3	MacArthur Blvd/I-405 SB Ramps [a]	S	0.70	B	0.83	D	0.69	B	0.85	D	-0.009	0.019	No	No
4	MacArthur Blvd/Michelson Dr [a]	S	0.68	B	0.95	E	0.68	B	0.96	E	0.002	0.005	No	No
5	MacArthur Blvd/Campus Dr [a]	S	0.67	B	0.93	E	0.68	B	0.92	E	0.009	-0.005	No	No
6	MacArthur Blvd/Birch St	S	0.40	A	0.52	A	0.41	A	0.53	A	0.005	0.001	No	No
7	MacArthur Blvd/Von Karman Ave	S	0.67	B	0.53	A	0.67	B	0.53	A	0.000	0.003	No	No
8	MacArthur Blvd/Jamboree Rd [a,b]	S	0.78	C	0.87	D	0.80	C	0.92	E	0.024	0.046	No	No
9	MacArthur Blvd/Fairchild Rd [a]	S	0.92	E	0.72	C	0.93	E	0.73	C	0.011	0.008	No	No
10	MacArthur Blvd NB Off-ramp/University Dr	S	0.55	A	0.66	B	0.55	A	0.66	B	0.000	0.000	No	No
11	MacArthur Blvd SB Off-ramp/University Dr	S	0.39	A	0.33	A	0.39	A	0.33	A	0.000	0.000	No	No
12	Von Karman Ave/Main St [a]	S	0.84	D	0.90	D	0.84	D	0.91	E	0.000	0.003	No	No
13	Von Karman Ave/Michelson Dr [a]	S	0.73	C	0.95	E	0.74	C	0.95	E	0.007	0.007	No	No

Table 5.14-11
Summary of Intersection Operations
Year 2021 Cumulative Conditions with Phase 2 (Project Buildout)

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
14	Von Karman Ave/Dupont Dr [a]	S	0.53	A	0.65	B	0.54	A	0.66	B	0.007	0.008	No	No
15	Von Karman Ave/Campus Dr [a]	S	0.71	C	0.94	E	0.72	A	0.95	E	0.012	0.007	No	No
16	Von Karman Ave/Birch St	S	0.33	A	0.40	A	0.34	A	0.40	A	0.014	0.005	No	No
17	Teller Ave/Campus Dr [a]	S	0.51	A	0.56	A	0.52	A	0.57	A	0.007	0.008	No	No
18	Teller Ave/Birch St	U	12.30	B	11.60	B	12.9	B	12.3	B	0.600	0.700	No	No
19	Jamboree Rd/Main St [a]	S	0.95	E	1.04	**F**	0.95	E	1.05	**F**	-0.002	0.004	No	No
20	Jamboree Rd/I-405 NB Ramps [a,b]	S	0.75	C	0.97	E	0.75	C	0.98	E	0.005	0.009	No	No
21	Jamboree Rd/I-405 SB Ramps [a,b]	S	1.07	**F**	0.99	E	1.07	**F**	1.00	E	-0.001	0.009	No	No
22	Jamboree Rd/Michelson Dr [a]	S	0.84	D	1.22	**F**	0.84	D	1.22	**F**	-0.001	0.003	No	No
23	Jamboree Rd/Dupont Dr [a]	S	0.78	C	0.78	C	0.78	C	0.82	D	0.000	0.035	No	No
24	Jamboree Rd/Campus Dr [a]	S	0.81	D	0.86	D	0.81	D	0.87	D	0.006	0.005	No	No
25	Jamboree Rd/Birch St	S	0.62	B	0.72	C	0.63	B	0.75	C	0.014	0.025	No	No
26	Jamboree Rd/Fairchild Rd [a]	S	0.74	C	0.79	C	0.78	C	0.80	C	0.043	0.015	No	No

Table 5.14-11
Summary of Intersection Operations
Year 2021 Cumulative Conditions with Phase 2 (Project Buildout)

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
27	Jamboree Rd/Bristol St North	S	0.38	A	0.58	A	0.40	A	0.59	A	0.019	0.011	No	No
28	Jamboree Rd/Bristol St South	S	0.55	A	0.63	B	0.56	A	0.64	B	0.006	0.006	No	No
29	Jamboree Rd/Bayview Way	S	0.42	A	0.46	A	0.42	A	0.47	A	0.000	0.008	No	No
30	Jamboree Rd/University Dr	S	0.67	B	0.66	B	0.68	B	0.67	B	0.010	0.011	No	No
31	Carlson Ave/Michelson Dr [a]	S	0.64	B	0.90	D	0.65	B	0.91	E	0.001	0.006	No	No
32	Carlson Ave/Campus Dr [a]	S	0.66	B	0.85	D	0.66	B	0.85	D	-0.001	-0.003	No	No
33	Harvard Ave/Michelson Dr	S	0.76	C	0.95	**E**	0.76	C	0.96	**E**	0.002	0.006	No	No
34	Campus Dr/Bristol St North	S	0.52	A	0.73	C	0.54	A	0.73	C	0.014	0.005	No	No
35	Birch St/Bristol St North	S	0.54	A	0.57	A	0.57	A	0.58	A	0.024	0.010	No	No
36	Campus Dr/Bristol St South	S	0.63	B	0.50	A	0.62	B	0.52	A	-0.003	0.016	No	No
37	Birch St/Bristol St South	S	0.40	A	0.42	A	0.40	A	0.43	A	-0.002	0.005	No	No
38	Bayview Pl/Bristol St South	S	0.41	A	0.50	A	0.41	A	0.52	A	0.002	0.020	No	No
39	Irvine Ave/Mesa Dr	S	0.38	A	0.56	A	0.38	A	0.57	A	0.000	0.002	No	No

Table 5.14-11
Summary of Intersection Operations
Year 2021 Cumulative Conditions with Phase 2 (Project Buildout)

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
40	University Dr/Campus Dr	S	0.88	D	0.87	D	0.88	D	0.86	D	-0.001	-0.002	No	No
41	Mesa Rd/University Dr	S	0.65	B	0.90	D	0.65	B	0.90	D	0.000	0.000	No	No
42	California Ave/University Dr	S	0.65	B	0.72	C	0.65	B	0.72	C	0.000	0.000	No	No
43	Birch St/Driveway	S	8.80	A	11.50	B	10.40	B	11.80	B	1.600	0.300	No	No

Notes:
a = Intersection is located within the Irvine Business Complex Vision Plan Area (LOS E Acceptable).
b = Orange County Congestion Management Program (CMP) intersection (LOS E Acceptable).
S = Signalized, U=Unsignalized
Bold values indicate intersections operating at an unacceptable LOS.
Intersection operation is expressed in average seconds of delay per vehicle during the peak hour for unsignalized intersections using HCM 2000 Methodology and is expressed in volume-to-capacity (V/C) for signalized intersections using ICU Methodology.

IMPACT 5.14-2: PROJECT-RELATED TRAFFIC WOULD NOT RESULT IN TRAFFIC IMPACTS PER TRAFFIC PHASING ORDINANCE ANALYSIS REQUIREMENTS. [THRESHOLDS T-1 AND T-2]

Near-term future traffic forecasts have been developed for two analysis conditions:

- Opening Year with Committed plus Cumulative Projects, as required by CEQA (included in Impact Statement 5.14-1, above)
- Opening Year with Existing plus Growth plus Committed Projects traffic, representing analysis of the conditions required by the City of Newport Beach TPO.

TPO requirements differ from CEQA requirements in that, typically, the TPO's focus is on the conditions one year after project occupancy, or five years after project approval for larger projects that are not expected to be completed within five years, which in this case would be Year 2018. In addition, the TPO analysis includes only "committed projects." Committed projects have been approved in Newport Beach, as opposed to "cumulative projects," which are reasonable and foreseeable projects in Irvine and Newport Beach.

Phase 1

The entire Uptown Newport project is not anticipated to be completed within five years of approval. Therefore, the TPO analysis will address Phase 1 of the project, which is expected to be completed by 2018.

TPO Analysis Methodology

The City of Newport Beach TPO first requires determination of whether project trips will increase traffic volumes on any leg of a primary intersection by 1 percent or more during either the morning or evening peak hour one year after project completion, or that portion of the project expected to be constructed within five years of project approval, which would be Year 2018. The TPO then requires a level of service analysis of the project impact at any primary intersection that exceeds the 1 percent threshold.

For TPO purposes, traffic forecasts are developed by applying an ambient growth rate of 1 percent per year on primary roadways (Jamboree Road, MacArthur Boulevard and Irvine Avenue) in the project vicinity, plus traffic from committed projects in the vicinity of the proposed project site. Committed projects are projects in the City of Newport Beach that have been approved but are not fully constructed and occupied. Committed projects information was provided by the City of Newport Beach staff. A summary of committed projects is provided on Table 4-1, *Approved Projects per Newport Beach Traffic Phasing Ordinance*; Figure 4.3, *Approved Traffic Phasing Ordinance Projects*, presents the approved TPO projects. Table 4-1 and Figure 4.3 are included in Chapter 4, *Environmental Setting.*

For the TPO analysis, the project-related morning and evening peak hour traffic volumes were compared to the Year 2018 without project peak hour volumes on each leg of each study intersection to determine whether or not the project would result in a 1 percent increase. The project traffic would exceed 1 percent on at least one approach in one or both peak hours at each of the Newport Beach study intersections; therefore, a TPO traffic impact analysis was conducted at all of the study intersections. It should be noted that the 1 percent analysis was not conducted for the study intersections in the City of Irvine, since the TPO requirement only applies to the City of Newport Beach intersections. However, all of the study intersections in the City of Irvine were analyzed for all study scenarios.

Traffic volumes generated by the committed projects in the study area, and trip generation data to develop Year 2018 TPO forecast traffic volumes, and the 1 percent Analysis Worksheets for the TPO Analysis, and ICU worksheets are provided in the Traffic Impact Analysis (Appendix M).

TPO Impact Analysis

Intersection peak hour traffic conditions were evaluated for Year 2018 TPO (Existing plus Growth plus Committed Projects) without Project, and with Phase 1 project traffic. The results of the intersection analysis are summarized on Table 5.14-12. The following intersections would operate at an unacceptable level of service under Year 2018 TPO Analysis without, and with Project Phase 1 Conditions:

- 21. Jamboree Road at I-405 SB Ramps (AM: LOS F)
- 22. Jamboree Road at Michelson Drive (PM: LOS F)
- 33. Harvard Avenue at Michelson Drive (PM: LOS E)

All other study intersections would operate at an acceptable level of service in both peak hours. The project-related impact of Phase 1 at the intersection of Harvard Avenue and Michelson Drive would be slightly negative, meaning that the reduction in existing office trips would more than offset the addition of the proposed residential trips. As a result, the intersection operations would improve slightly as a result of the proposed project, but would continue to operate at LOS E. The project would not result in a significant impact with the addition of Phase 1 project trips at any of the study intersections.

Phase 2

Phase 2 of the project is anticipated to commence in 2017 and be completed in 2021, after the five-year timeframe of Phase 1's TPO, and therefore would be required to prepare a separate TPO analysis at a later date to satisfy the requirements of the TPO ordinance.

Table 5.14-12
Summary of Intersection Operations
Year 2018 TPO Analysis

	Intersection	U/S	Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
			ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
1	MacArthur Blvd/Main St[a]	S	0.60	A	0.78	C	0.60	A	0.78	C	0.000	0.002	No	No
2	MacArthur Blvd/I-405 NB Ramps[a]	S	0.76	C	0.71	C	0.76	C	0.71	C	0.002	0.001	No	No
3	MacArthur Blvd/I-405 SB Ramps[a]	S	0.67	B	0.79	C	0.67	B	0.80	C	0.002	0.009	No	No
4	MacArthur Blvd/Michelson Dr[a]	S	0.64	B	0.91	E	0.64	B	0.91	E	0.001	0.003	No	No
5	MacArthur Blvd/Campus Dr[a]	S	0.62	B	0.89	D	0.63	B	0.89	D	0.005	0.000	No	No
6	MacArthur Blvd/Birch St	S	0.37	A	0.49	A	0.37	A	0.50	A	0.004	0.005	No	No
7	MacArthur Blvd/Von Karman Ave	S	0.58	A	0.46	A	0.58	A	0.46	A	0.000	0.007	No	No
8	MacArthur Blvd/Jamboree Rd [a,b]	S	0.65	B	0.74	C	0.66	B	0.77	C	0.017	0.027	No	No
9	MacArthur Blvd/Fairchild Rd[a]	S	0.87	D	0.67	B	0.87	D	0.68	B	0.007	0.006	No	No
10	MacArthur Blvd NB Off-ramp/University Dr	S	0.52	A	0.62	B	0.52	A	0.62	B	0.000	0.000	No	No
11	MacArthur Blvd SB Off-ramp/University Dr	S	0.38	A	0.32	A	0.38	A	0.32	A	0.000	0.000	No	No
12	Von Karman Ave/Main St[a]	S	0.81	D	0.87	D	0.81	D	0.87	D	0.000	0.002	No	No
13	Von Karman Ave/Michelson Dr[a]	S	0.70	B	0.90	D	0.70	B	0.91	E	0.004	0.005	No	No

Table 5.14-12
Summary of Intersection Operations
Year 2018 TPO Analysis

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
14	Von Karman Ave/Dupont Dr[a]	S	0.51	A	0.62	B	0.52	A	0.63	B	0.004	0.004	No	No
15	Von Karman Ave/Campus Dr[a]	S	0.68	B	0.90	D	0.69	B	0.90	D	0.007	0.003	No	No
16	Von Karman Ave/Birch St	S	0.29	A	0.35	A	0.29	A	0.35	A	-0.001	-0.002	No	No
17	Teller Ave/Campus Dr[a]	S	0.49	A	0.54	A	0.50	A	0.55	A	0.006	0.006	No	No
18	Teller Ave/Birch St	U	12.10	B	11.50	B	12.10	B	11.50	B	0.000	0.000	No	No
19	Jamboree Rd/Main St[a]	S	0.91	E	1.00	E	0.91	E	1.00	E	0.000	0.002	No	No
20	Jamboree Rd/I-405 NB Ramps [a,b]	S	0.71	C	0.92	E	0.72	C	0.93	E	0.005	0.010	No	No
21	Jamboree Rd/I-405 SB Ramps [a,b]	S	1.02	**F**	0.95	E	1.03	**F**	0.95	E	0.002	0.009	No	No
22	Jamboree Rd/Michelson Dr[a]	S	0.80	C	1.16	**F**	0.80	C	1.17	**F**	0.001	0.005	No	No
23	Jamboree Rd/Dupont Dr[a]	S	0.74	C	0.75	C	0.75	C	0.77	C	0.002	0.016	No	No
24	Jamboree Rd/Campus Dr[a]	S	0.77	C	0.82	D	0.78	C	0.82	D	0.008	0.006	No	No
25	Jamboree Rd/Birch St	S	0.59	A	0.67	B	0.59	A	0.70	B	0.003	0.022	No	No
26	Jamboree Rd/Fairchild Rd[a]	S	0.69	B	0.74	C	0.74	C	0.77	C	0.053	0.030	No	No
27	Jamboree Rd/Bristol St North	S	0.34	A	0.51	A	0.35	A	0.52	A	0.015	0.008	No	No

Table 5.14-12
Summary of Intersection Operations
Year 2018 TPO Analysis

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
28	Jamboree Rd/Bristol St South	S	0.52	A	0.60	A	0.52	A	0.60	A	0.002	0.004	No	No
29	Jamboree Rd/Bayview Way	S	0.37	A	0.42	A	0.37	A	0.43	A	0.000	0.005	No	No
30	Jamboree Rd/University Dr	S	0.62	B	0.59	A	0.62	B	0.59	A	0.006	0.006	No	No
31	Carlson Ave/Michelson Dr[a]	S	0.62	B	0.86	D	0.62	B	0.86	D	-0.001	0.000	No	No
32	Carlson Ave/Campus Dr[a]	S	0.63	B	0.81	D	0.63	B	0.82	D	0.001	0.004	No	No
33	Harvard Ave/Michelson Dr	S	0.72	C	0.91	**E**	0.72	C	0.91	**E**	0.000	-0.001	No	No
34	Campus Dr/Bristol St North	S	0.49	A	0.72	C	0.50	A	0.72	C	0.008	0.005	No	No
35	Birch St/Bristol St North	S	0.54	A	0.57	A	0.55	A	0.58	A	0.014	0.008	No	No
36	Campus Dr/Bristol St South	S	0.60	A	0.49	A	0.60	A	0.50	A	0.000	0.009	No	No
37	Birch St/Bristol St South	S	0.40	A	0.42	A	0.40	A	0.43	A	0.000	0.003	No	No
38	Bayview Pl/Bristol St South	S	0.41	A	0.50	A	0.41	A	0.51	A	0.002	0.012	No	No
39	Irvine Ave/Mesa Dr	S	0.36	A	0.52	A	0.36	A	0.52	A	0.000	0.002	No	No
40	University Dr/Campus Dr	S	0.84	D	0.82	D	0.84	D	0.83	D	0.008	0.003	No	No

Table 5.14-12
Summary of Intersection Operations
Year 2018 TPO Analysis

	Intersection	U/S	Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
			ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
41	Mesa Rd/University Dr	S	0.62	B	0.85	D	0.62	B	0.85	D	0.000	0.000	No	No
42	California Ave/University Dr	S	0.60	A	0.68	B	0.60	A	0.68	B	0.000	0.000	No	No
43	Birch St/Driveway	S	8.80	A	11.30	B	8.60	A	11.10	B	-0.200	-0.200	No	No

Source: Kimley-Horn and Associates, 2012
Notes:
a = Intersection is located within the Irvine Business Complex Vision Plan Area (LOS E Acceptable).
b = Orange County Congestion Management Program (CMP) intersection (LOS E Acceptable).
S = Signalized, U=Unsignalized
Bold values indicate intersections operating at an unacceptable LOS.
Intersection operation is expressed in average seconds of delay per vehicle during the peak hour for unsignalized intersections using HCM 2000 Methodology and is expressed in volume-to-capacity (V/C) for signalized intersections using ICU Methodology.

IMPACT 5.14-3: ***THE PROJECT-RELATED TRAFFIC WOULD NOT RESULT IN SIGNIFICANT IMPACTS TO CONGESTION MANAGEMENT PLAN FACILITIES IN THE STUDY AREA. THE PROJECT, THEREFORE, WOULD NOT RESULT IN A DESIGNATED ROAD OR INTERSECTION EXCEEDING COUNTY CONGESTION MANAGEMENT AGENCY SERVICE STANDARDS. [THRESHOLD T-2]***

Impact Analysis: The Orange County CMP was established in 1991 to reduce traffic congestion and to provide a mechanism for coordinating land use and development decisions. Compliance with CMP requirements ensures a city's eligibility to compete for state gas tax funds for local transportation projects. The Orange County CMP states that "a TIA will be required for CMP purposes for all proposed developments generating 2,400 or more daily trips," and that "for developments which will directly access a CMP Highway System link, the threshold for requiring a TIA should be reduced to 1,600 or more trips per day." As such, the project is required to comply with the CMP Traffic Impact Analysis guidelines.

Phase 1

Phase 1 of the project is estimated to generate a net 5,012 daily trips, and would take access directly onto Jamboree Road, which is a CMP facility. As such, the project is required to comply with the CMP Traffic Impact Analysis guidelines. Within the project study area, the CMP Highway System includes two arterials: Jamboree Road north of MacArthur Boulevard, and MacArthur Boulevard south of Jamboree Road. The study area for a CMP analysis is defined by a measure of the project's significant impact on the roadway links. Significant impact is defined as links impacted by 3 percent or more of their LOS "E" capacity.

CMP intersections in the vicinity of the project consist of:

- I-405 Northbound Ramps / Jamboree Road
- I-405 Southbound Ramps / Jamboree Road
- MacArthur Boulevard / Jamboree Road

The project impact at intersections was discussed in Impact 5.14-1. As shown on Table 5.14-10, the project would not result in a cause a CMP intersection to fall below LOS E, and would not cause a cumulative increase of more than 0.10 in V/C ratio at any CMP intersection with an established LOS standard worse than LOS E for any scenario. The project's contribution to trips at CMP intersections would be less than significant as it would not exceed this impact threshold at development of Phase 1.

Phase 2

Phase 2 of the project is estimated to generate a net 8,286 daily trips, and would take access directly onto a CMP facility. The project daily trips would not exceed 3 percent of the Level of Service E capacity of the CMP facilities, which are Jamboree Road north of MacArthur Boulevard, and MacArthur Boulevard south of Jamboree Road. The project is in compliance with CMP Traffic Impact Analysis Requirements.

The project impact at intersections was discussed in Impact 5.14-1. As shown on Table 5.14-11, the project would not cause any CMP intersections listed above to fall below LOS E, and would not cause a cumulative increase of more than 0.10 in V/C ratio at any CMP intersection with an established LOS standard worse than LOS E for any scenario. The project's contribution to trips at CMP intersections would be less than significant as it would not exceed this impact threshold at development of Phase 2.

IMPACT 5.14-4 THE PROJECT-RELATED TRAFFIC WOULD NOT RESULT IN SIGNIFICANT IMPACTS TO STATE HIGHWAY INTERSECTIONS IN THE STUDY AREA. [THRESHOLD T-1]

Intersections on state highway facilities, which are controlled by Caltrans, were also analyzed using the HCM methodology, as required by the Caltrans Guide for the Preparation of Traffic Impact Studies. In the vicinity of the project, I-405 and SR-73 are Caltrans facilities. Therefore, study intersections on or adjoining these roadways were also analyzed using the HCM intersection analysis methodology.

Caltrans advocates HCM methodology to analyze signalized intersections. The HCM methodology measures average seconds of delay per vehicle based on a number of technical parameters, such as peak hourly traffic volumes, number of lanes, type of signal operation, signal timing, and signal phasing in the calculations. A description of each level of service, based on delay parameters is provided in Table 5.14-2.

A significant project impact occurs for state-controlled intersections when the addition of project-generated trips causes the peak hour level of service to change from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E, or F). The following presents the impact analysis at state-controlled intersections for Phase 1 and Phase 2.

Phase 1

Year 2018 Cumulative Conditions peak hour operation for the state highway study intersections without and with Project Phase 1 are summarized on Table 5.14-13. Each of the state highway study intersections would operate at an acceptable level of service under Year 2018 Cumulative Conditions without Project using the HCM delay analysis methodology. With the addition of project traffic, the state highway study intersections would continue to operate at an acceptable level of service using the HCM delay analysis methodology. The addition of project-generated trips would not cause the peak hour level of service of any state-controlled study intersection to change from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E, or F). Impacts would be less than significant.

Table 5.14-13
Summary of State Highway Intersection Operations
Year 2018 Cumulative with Phase 1

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
	Intersection	U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
2	MacArthur Blvd/I-405 NB Ramps	S	21.0	C	19.9	B	21.0	C	19.8	B	0.000	-0.100	No	No
3	MacArthur Blvd/I-405 SB Ramps	S	20.0	C	20.8	C	20.1	C	21.1	C	0.100	0.300	No	No
20	Jamboree Rd/I-405 NB Ramps	S	18.4	B	11.1	B	18.4	B	11.8	B	0.000	0.700	No	No
21	Jamboree Rd/I-405 SB Ramps	S	48.4	D	26.2	C	48.9	D	26.4	C	0.500	0.200	No	No

Source: Kimley-Horn and Associates, 2012.

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Phase 2

Year 2021 Cumulative Conditions without Project peak hour operation for the state highway study intersections are summarized on Table 5.14-14.

All state highway study intersections would operate at an acceptable level of service under Year 2021 Cumulative Conditions without Project scenario, except one intersection. The intersection of Jamboree Road at I-405 Southbound Ramps is forecast to operate at LOS E in the AM peak hour. With the addition of project traffic, all state highway study intersections, except one, would continue to operate at an acceptable Level of Service using the HCM delay analysis methodology. The intersection of Jamboree Road at I-405 Southbound Ramps would continue to operate at LOS E in the AM peak hour. The addition of project-generated trips would not cause the peak hour level of service of any state-controlled study intersection to change from acceptable operation (LOS A, B, or C) to deficient operation (LOS D, E, or F). Impacts would be less than significant.

In some cases, the project-related impact would be slightly negative (i.e., a slight improvement in average delay). This is because the conversion of land use from office to residential results in a shift in traffic patterns, and in some cases, the reduction in existing office trips on some critical movements would more than offset the addition of the proposed residential trips. As a result, some intersection operations would improve slightly with the implementation of the proposed project.

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Table 5.14-14
Summary of State Highway Intersection Operations
Year 2021 Cumulative with Phase 2

			Without Project				With Project				Project Impact			
			AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		Change		Significant?	
Intersection		U/S	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	ICU/ Delay	LOS	AM	PM	AM	PM
2	MacArthur Blvd/I-405 NB Ramps	S	21.6	C	20.4	C	21.5	C	20.3	C	-0.100	-0.100	No	No
3	MacArthur Blvd/I-405 SB Ramps	S	20.4	C	21.5	C	20.6	C	22.1	C	0.200	0.600	No	No
20	Jamboree Rd/I-405 NB Ramps	S	18.9	B	12.3	B	18.8	B	13.0	B	-0.100	0.700	No	No
21	Jamboree Rd/I-405 SB Ramps	S	60.8	**E**	28.5	C	60.3	**E**	28.8	C	-0.500	0.300	No	No

Source: Kimley-Horn and Associates, 2012.
Notes:
S = Signalized
Bold and shaded values indicate intersections operating at LOS E or F.
Intersection operation is expressed in average seconds of delay per vehicle during the peak hour for signalized intersections using the HCM 2000 Methodology.

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IMPACT 5.14-5 PROJECT-RELATED TRIP GENERATION WOULD NOT RESULT IN ADDITIONAL FREEWAY SEGMENTS FALLING TO UNACCEPTABLE LEVELS OF SERVICE. [THRESHOLD T-1]

Analysis of freeway mainline segments in the vicinity of the project was conducted in accordance with the Caltrans Guide for the Preparation of Traffic Impact Studies, which specifies application of the HCM methodology for freeway analysis. Freeway analysis results are expressed in terms of density, which measures the number of passenger cars per lane mile (pc/mi/ln) on the freeway mainline. The target level of service for freeway mainline segments is LOS "D", which is a density of between 35 and 45 pc/mi/ln. If the existing density exceeds the target LOS, the existing level of service is to be maintained.

Freeway mainline analysis was conducted on I-405 between Culver Drive and the SR-55 Freeway and on SR-73 between Bonita Canyon Drive and SR-55. Freeway analyses were conducted using the HCS+ software operational methodology. The results of the analysis are expressed in terms of vehicular density in each peak hour, in each direction, as discussed above. The methodology utilized for the freeway analysis and the calculation worksheets are provided in the TIA included in Appendix M. A summary of the results of the freeway mainline analysis for each study scenario are presented below.

Phase 1

Year 2018 Cumulative Conditions consists of Existing plus Growth plus Committed and Cumulative Projects traffic. Year 2018 Cumulative without Project peak hour freeway volumes and analysis results for the I-405 and SR-73 freeways are summarized on Table 5.14-15. These tables indicate that the following freeway segments are forecast to operate at below the target level of service:

- I-405 (San Diego Freeway) Northbound
  - Culver Drive to Jamboree Road (LOS E: AM peak hour)
  - Jamboree Road to MacArthur Boulevard (LOS E: AM peak hour)
  - MacArthur Boulevard to Jct. SR-55 (LOS E: AM peak hour)

- I-405 (San Diego Freeway) Southbound
  - Jct. SR-55 to MacArthur Boulevard (LOS E: PM peak hour)
  - MacArthur Boulevard to Jamboree Road (LOS E: AM and PM peak hours)
  - Jamboree Road to Culver Drive (LOS E: PM peak hour)

- SR-73 (San Joaquin Hills Transportation Corridor) Northbound
  - Jamboree Road to Jct. SR-55 (LOS E: PM peak hour)

Table 5.14-15
Summary of Freeway Mainline Operation
2018 Cumulative Conditions without Project

Freeway Segment	Lanes	AM Peak Hour			PM Peak Hour		
		Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
I-405 Northbound							
Culver Drive to Jamboree Road	6	13,688	35.6	E	10,049	26.1	D
Jamboree Road to MacArthur Boulevard	6	14,447	37.6	E	10,607	27.6	D
MacArthur Boulevard to Jct. SR-55	6	14,752	38.3	E	10,830	28.1	D
I-405 Southbound							
Jct. SR-55 to MacArthur Boulevard	6	11,441	29.7	D	**13,992**	36.4	E
MacArthur Boulevard to Jamboree Road	5	11,204	34.9	D	**13,703**	42.7	E
Jamboree Road to Culver Drive	5	10,616	33.1	D	12,985	40.5	E
SR-73 Northbound							
Bonita Cyn Dr/Ford Rd to Jamboree Road	3	2,765	15.0	B	3,811	20.7	C
Jamboree Road to Jct. SR-55	4	7,404	29.5	D	10,207	40.7	E
SR-73 Southbound							
Jct. SR-55 to Jamboree Road	4	8,312	33.1	D	7,867	31.4	D
Jamboree Road to Bonita Cyn Dr/Ford Rd	3	3,105	16.9	B	2,939	16.0	B

Source: Kimley-Horn and Associates, 2012.

Year 2018 Cumulative with Project Phase 1 peak hour freeway volumes and analysis results for the I-405 and SR-73 freeways are summarized on Table 5.14-16. With Phase 1, all previously deficient segments would continue to be deficient, and the proposed project would have little impact on the analyzed freeway segments. The addition of project-related traffic would not cause additional freeway segments to operate at LOS E or worse, and would not cause the level of service to worsen on any segment already operating at LOS E or worse.

Table 5.14-16
Peak Hour Freeway Mainline Operation
2018 Cumulative Conditions with Phase 1

Freeway Segment	Lanes	AM Peak Hour			PM Peak Hour		
		Volume	Density (pc/mi/ln)	LOS	Volume	Density (pc/mi/ln)	LOS
I-405 Northbound							
Culver Drive to Jamboree Road	6	13,696	35.6	E	10,095	26.2	D
Jamboree Road to MacArthur Boulevard	6	14,468	37.6	E	10,616	27.6	D
MacArthur Boulevard to Jct. SR-55	6	14,794	38.4	E	10,851	28.2	D
I-405 Southbound							
Jct. SR-55 to MacArthur Boulevard	6	11,448	29.7	D	14,014	36.4	E
MacArthur Boulevard to Jamboree Road	5	11,206	34.9	D	13,726	42.8	E
Jamboree Road to Culver Drive	5	10,658	33.2	D	13,031	40.6	E
SR-73 Northbound							
Bonita Cyn Dr/Ford Rd to Jamboree Road	3	2,765	15.0	B	3,811	20.7	C
Jamboree Road to Jct. SR-55	4	7,459	29.7	D	10,236	40.8	E
SR-73 Southbound							
Jct. SR-55 to Jamboree Road	4	8,327	33.2	D	7,929	31.6	D
Jamboree Road to Bonita Cyn Dr/Ford Rd	3	3,105	16.9	B	2,939	16.0	B

Source: Kimley-Horn and Associates, 2012.

Phase 2

Year 2021 Cumulative without Project peak hour freeway volumes and analysis results for the I-405 and SR-73 freeways are summarized on Table 5.14-17. These tables indicate that the following freeway segments are forecast to operate at below the target level of service:

- I-405 (San Diego Freeway) Northbound
  - Culver Drive to Jamboree Road (LOS E: AM peak hour)
  - Jamboree Road to MacArthur Boulevard (LOS E: AM peak hour)
  - MacArthur Boulevard to Jct. SR-55 (LOS E: AM peak hour)
- I-405 (San Diego Freeway) Southbound
  - Jct. SR-55 to MacArthur Boulevard (LOS E: PM peak hour)
  - MacArthur Boulevard to Jamboree Road (LOS E: AM and PM peak hours)
  - Jamboree Road to Culver Drive (LOS E: PM peak hour)
- SR-73 (San Joaquin Hills Transportation Corridor) Northbound
  - Jamboree Road to Jct. SR-55 (LOS E: PM peak hour)

Table 5.14-17
Peak Hour Freeway Mainline Operation
2021 Cumulative Conditions without Project

Freeway Segment	Lanes	AM Peak Hour			PM Peak Hour		
		Volume	Density (pc/mi/ln)	Volume	Density (pc/mi/ln)	Volume	Density (pc/mi/ln)
I-405 Northbound							
Culver Drive to Jamboree Road	6	14,103	36.7	E	10,354	26.9	D
Jamboree Road to MacArthur Boulevard	6	14,885	38.7	E	10,928	28.4	D
MacArthur Boulevard to Jct. SR-55	6	15,198	39.5	E	11,158	29.0	D
I-405 Southbound							
Jct. SR-55 to MacArthur Boulevard	6	11,787	30.6	D	14,416	37.5	E
MacArthur Boulevard to Jamboree Road	5	11,543	36.0	E	14,118	44.0	E
Jamboree Road to Culver Drive	5	10,938	34.1	D	13,378	41.7	E
SR-73 Northbound							
Bonita Cyn Dr/Ford Rd to Jamboree Road	3	2,849	15.5	B	3,927	21.4	C
Jamboree Road to Jct. SR-55	4	7,629	30.4	D	10,516	41.9	E
SR-73 Southbound							
Jct. SR-55 to Jamboree Road	4	8,564	34.2	D	8,106	32.3	D
Jamboree Road to Bonita Cyn Dr/Ford Rd	3	3,199	17.4	B	3,028	16.5	B

Source: Kimley-Horn and Associates, 2012.

2021 Cumulative Conditions with Project peak hour freeway volumes and analysis results for the I-405 and SR-73 freeway are summarized on Table 5.14-18. These tables indicate that all previously deficient segments would continue to be deficient, and that the proposed project would have little impact on the analyzed freeway segments. The addition of project-related traffic would not cause additional freeway segments to operate at LOS E or worse and would not cause the level of service to worsen on any segment already operating at LOS E or worse.

Table 5.14-18
Peak Hour Freeway Mainline Operation
Year 2021 with Project Phase 2

Freeway Segment	Lanes	AM Peak Hour			PM Peak Hour		
		Volume	Density (pc/mi/ln)	Volume	Density (pc/mi/ln)	Volume	Density (pc/mi/ln)
I-405 Northbound							
Culver Drive to Jamboree Road	6	14,114	36.7	E	10,433	27.1	D
Jamboree Road to MacArthur Boulevard	6	14,914	38.8	E	10,935	28.4	D
MacArthur Boulevard to Jct. SR-55	6	15,273	39.7	E	11,189	29.1	D
I-405 Southbound							
Jct. SR-55 to MacArthur Boulevard	6	11,796	30.7	D	14,494	37.7	E
MacArthur Boulevard to Jamboree Road	5	11,540	36.0	E	14,148	44.1	E
Jamboree Road to Culver Drive	5	11,013	34.4	D	13,413	41.8	E
SR-73 Northbound							
Bonita Cyn Dr/Ford Rd to Jamboree Road	3	2,849	15.5	B	3,927	21.4	C
Jamboree Road to Jct. SR-55	4	7,729	30.8	D	10,561	42.1	E
SR-73 Southbound							
Jct. SR-55 to Jamboree Road	4	8,564	34.2	D	8,213	32.7	D
Jamboree Road to Bonita Cyn Dr/Ford Rd	3	3,199	17.4	B	3,028	16.5	B

Source: Kimley-Horn and Associates, 2012.

IMPACT 5.14-6 THE PROPOSED PROJECT COMPLIES WITH ADOPTED POLICIES, PLANS, AND PROGRAMS FOR ALTERNATIVE TRANSPORTATION. [THRESHOLD T-6]

Applicable transportation plans and policies relating to alternative transportation and a documentation of project consistency for each of the policies is included in previous Table 5.9-1, *General Plan Consistency Analysis,* in Section 5.9, *Land Use and Planning.* The following discusses the alternative transportation modes available in the vicinity of the project.

Phase 1

In order to encourage alternative modes of travel and to help people to feel comfortable walking and biking, the project would also include traffic-calming measures. The project Design Guidelines encourage the use of street chokers on internal streets to slow traffic, development of pedestrian-scale streets on the internal street system, and the use of enhanced paving at pedestrian connections to draw attention to the presence of pedestrians.

Public Transit

Existing transit service in the project vicinity was described in Section 5.14.1, *Environmental Setting*, and bus routes in the vicinity of the project are presented in Figure 5.14-3. The transit routes that serve the project area are already serving a significant employment-based area. As such, the transit schedules and frequencies are geared toward commuter needs and would be convenient for residents of the Uptown Newport project.

Bus stops for most of the transit routes are within one-quarter to one-half mile of the main entrance to the project site. OCTA routes serving the site provide frequent connections to UCI, the Irvine Business Complex

(IBC), John Wayne Airport, the Newport Transportation Center, and multiple other large and small shopping and employment centers.

Pedestrian

The Uptown Newport project would provide sidewalks throughout the project site, with multiple connections to the public street system and adjacent properties:

- Sidewalks would be provided along both sides of the main entry at Jamboree Road, leading directly to the crosswalks through the signalized intersection, which connect to Fairchild Road;
- Sidewalks would be provided along both sides of the secondary, unsignalized entry on Jamboree Road;
- A third sidewalk connection to Jamboree Road would be provided between the two entry drives;
- Sidewalks and pedestrian connections would be provided at several different locations between the project site and the adjacent Koll properties, to the west, giving residents who may work or have business "next door" a convenient path to walk there. Conceptual site plans presented on Figure 3-6, *Site Plan and Phasing Plan*, show five sidewalks connecting the project site to the Koll properties to the north.

Onsite sidewalks would vary from 5 feet to 8 feet wide, separated from the roadway by a 10-foot-wide landscaped parkway. The project's pedestrian circulation components would be designed and installed with all safety and accessibility requirements in mind, including Title 24 of the California Code of Regulations, and in a manner that would avoid conflicts with vehicles. These pedestrian connections to the surrounding area and the public street system shorten the walking distance to nearby destinations, including the nearest bus stop; and enhance the opportunity to walk or take transit, rather than drive. Walkways between buildings (paseos) create a pedestrian-oriented environment by breaking up large blocks and providing more convenient connectivity throughout the project site. Development of the project site would provide a pedestrian-friendly environment, with strong connectivity to adjacent commercial and office areas, and would offer a strong sense of community, connectivity, and livability.

Bicycles

For its entire length through the City of Newport Beach, Jamboree Road is currently designated on the City of Newport Beach Bike Map as "Okay to Ride on Sidewalk." On the City's Bikeways Master Plan, Jamboree Road is shown as a Class 1 (off-road paved) bikeway. A Class 1 bikeway provides for bicycle travel on a paved right-of-way, separated from the street, such as on a sidewalk. A copy of the City of Newport Beach Bike Map and Bikeways Master Plan are provided in the Traffic Impact Analysis included in Appendix M. Along the project frontage, Jamboree Road currently provides a meandering sidewalk within a landscaped parkway. The Uptown Newport plan provides for implementation of a future Class 1 Bike Trail along the project frontage on Jamboree Road, consistent with the City's Bikeway Master Plan.

Other bicycle facilities in the project vicinity include Class 2 bicycle lanes (an on-road striped lane) on Campus Drive, and the "Okay to Ride on Sidewalk" designation on Von Karman from MacArthur Boulevard to Campus Drive, and on MacArthur Boulevard from Campus Drive to Jamboree Road. The City's Bikeways Master Plan shows that the Class 2 bike lanes on Campus Drive are to remain, and the bike facilities on MacArthur Boulevard and Von Karman Avenue are planned to be Class 1 bikeways.

The sidewalk connections from the Uptown Newport site to Jamboree Road, and through the adjacent Koll property would provide convenient access for bicyclists to the nearest existing and future bicycle facilities. The project would not conflict with the implementation of the City's Bikeway Master Plan, and would not add features that would compromise safety or increase hazards due to a project design feature.

Phase 2

The analysis for Phase 1 also applies to Phase 2.

Summary

The introduction of residential units in an area that is largely developed with employment and commercial uses would facilitate the use of alternative travel modes, such as walking, biking, and public transit. The close proximity of a residential use to employment and commercial centers can serve as encouragement to the residents of the development to walk or bike to work or shop, rather than drive a vehicle.

As previously discussed in Table 5.9-1, the project is consistent with goals and policies related to alternative transportation modes: Goal CE 5.1, "Convenient trail systems that satisfy recreational desires and transportation needs," and Goal CE 6.2, "Reduced automobile travel through the use of travel demand management strategies."

IMPACT 5.14-7 PROJECT-RELATED CONSTRUCTION WORKER, DELIVERY, AND CONSTRUCTION VEHICLE TRIPS WOULD NOT RESULT IN A DETRIMENT OF LEVELS OF SERVICE AT INTERSECTIONS AND ROADWAYS IN THE STUDY AREA. [THRESHOLD T-1]

Impact Analysis: Project construction activities would include the demolition of the existing office/industrial buildings onsite and the construction of the proposed Uptown Newport development. Throughout construction, the size of the work crew at the site each day would vary depending on the construction phase. Parking for workers would be provided onsite during all phases of construction. If needed during the peak construction periods, offsite parking would be provided, and workers would carpool or be shuttled to the worksite.

The number of heavy vehicles associated with building construction would vary depending on the construction materials required at any given time. For each construction phase, the construction traffic volumes would be less than the current site traffic that would be eliminated when the project construction begins, and would be less than the future project traffic generated by the proposed project. Heavy vehicles associated with demolition and construction would use the existing regional and local truck route network to approach the site, getting as close to the site as possible before turning off the designated truck route. The applicant would be required to identify planned travel patterns for haul vehicles and obtain a haul route permit from the City. Approach and departure routes for construction vehicles would be via Jamboree Road. Depending on the origin/destination (the nearest landfill, or the deposit site identified for cut material), trucks would either arrive and depart on Jamboree Road via I-405 to the north of the site, or Jamboree Road via SR-73 to the south of the site. Temporary delays in traffic may occasionally occur due to oversized vehicles traveling at lower speeds on local streets. Such delays would be occasional and of short duration. These temporary delays would be considered less than significant.

The project would be required to prepare a construction traffic management plan, which could include such items as requiring an encroachment permit for work in the public right-of-way, limiting heavy truck activity during peak hours, using flag men to manage short-term traffic control, requiring a formal traffic control plan for extended street and lane closures, limiting time and duration of closures, or requiring that a minimum

number of lanes be open for travel during peak hours. However, this temporary traffic impact would only occur during the construction phase of the proposed project and would not impose a long-term traffic impact. Additionally, the project applicant would be required to prepare and submit a traffic-management plan and acquire a street-closure permit prior to the commencement of any construction activities in accordance with the provisions outlined in Chapters 12.62, Temporary Street Closure, and 13.01, Street Construction Permits, of the City's Municipal Code.

The following evaluates traffic impacts during construction of Phase 1 and Phase 2.

Phase 1 Construction

Phase 1 would include demolition of the 4311 Jamboree Road office and industrial building and support facilities. Demolition activities would include demolishing and removing the building, foundations and footings, and the asphalt parking lot and light fixtures. It is estimated that approximately 12,800 cubic yards of construction debris and concrete would be removed from the site. Grading of the Phase 1 portion of the site would involve a combination of cut and fill activity, such that there would be a virtual balance of cut and fill on the site. This assumes a single level of underground parking. If a second underground level is needed, an estimated 90,000 cubic yards would need to be exported from the site. Assuming a capacity of 12 to 18 cubic yards per truckload, depending on the size of the truck, demolition and grading activities would require removal of approximately 700 to 1,070 truckloads of demolition debris, and if needed, 5,000 truckloads of cut material. Assuming a three-month period for demolition for Phase 1, this would equate to an average of 10 to 20 demolition debris truckloads per day, and if needed, an average of approximately 40 to 60 truckloads of export cut material per day, as shown on Table 5.14-19 below.

Table 5.14-19
Phase 1 Construction Traffic

Construction Phase	Daily Trips
Demolition	
Heavy Trucks (Haul Debris)	6–10
Construction Workers	9–15
Grading and Earthwork	
Haul Export Vehicles (if needed)	40–60
Construction Workers	30–42
Building Construction	
Construction Workers / Vendors	289

Source: Kimley-Horn and Associates, 2012.

Phase 2 Construction

Phase 2 would include demolition of the TowerJazz building at 4321 Jamboree Road. It is estimated that approximately 13,000 cubic yards of construction debris and concrete would need to be removed from the site. Grading of the Phase 2 portion of the site would involve a combination of cut and fill activity, such that there would be a virtual balance of cut and fill on the site. This assumes a single level of underground parking. If a second underground level is needed, an estimated 100,000 cubic yards would need to be exported from the site. Assuming a four-month period for demolition for Phase 2, this would equate to an average of 10 to 15 demolition debris truckloads per day, and if needed, an average of approximately 45 to 65 truckloads of export cut material per day, as shown on Table 5.14-20 below.

Table 5.14-20
Phase 2 Construction Traffic

Construction Phase	Daily Trips
Demolition	
Heavy Trucks	6–10
Construction Workers	9–15
Grading and Earthwork	
Haul Export Vehicles (if needed)	45–65
Construction Workers / Vendors	32–46
Building Construction	
Construction Workers / Vendors	289

Source: Kimley-Horn and Associates, 2012.

As discussed above, temporary delays in traffic may occasionally occur due to oversized vehicles traveling at lower speeds on local streets. Such delays would be occasional and of short duration. This temporary traffic impact would only occur during the construction of the proposed project and would not impose a long-term traffic impact. These temporary delays would be considered less than significant. Additionally, the project applicant would be required to prepare and submit a traffic-management plan and acquire a street-closure permit prior to the commencement of any construction activities in accordance with the provisions outlined in Chapters 12.62, Temporary Street Closure, and 13.01, Street Construction Permits, of the City's Municipal Code.

5.14.4 Cumulative Impacts

The impact analysis included in Section 5.14-1, 5.14-3, 5.14-4, and 5.14-5 includes the analysis of traffic conditions at local jurisdictions, CMP, and state-controlled intersections, and freeway mainline segments for cumulative conditions with and without the project. The list of related projects incorporated in the analysis was provided, as well as the assumptions incorporated for background, ambient traffic growth for completion of Phase 1 of the project in 2018, and Phase 2, which corresponds to buildout of the project in 2021. The proposed project would not result in both project-specific significant and cumulatively considerable impacts. No mitigation measures would be required.

The University of California, Irvine (UCI), 2007 Long Range Development Plan (LRDP) was reviewed to verify if there would be any impacts to UCI's vehicular, pedestrian, and bicycle circulation plans, and land use compatibility with existing and proposed UCI land uses. The LRDP vehicular network consists of campus roadways, intersections, and entry points to collect and distribute vehicular traffic at UCI. There were no cumulative projects identified within UCI's campus in the horizon year 2021. In addition, the impacts from the project to the intersections included in the 2007 LRDP of University Drive at Mesa Drive, and University Drive at California Avenue would be less than significant. The project would not conflict with UCI's vehicular, pedestrian, and bicycle circulation plans.

Site access is adequately designed and would not combine with other area traffic impacts to result in significant circulation impacts. Similarly, short-term and long-term parking would be managed onsite and not combine with other area projects to result in cumulative parking impacts.

5.14.5 Existing Regulations and Standard Conditions

City of Newport Beach Municipal Code

The following chapters of the City's Municipal Code specifically include traffic, parking, and circulation provisions:

- Chapter 20.66, *Off Street Parking and Loading*
- Chapter 15.40, *Traffic Phasing Ordinance*
- Chapter 12.62, *Temporary Street Closure*
- Chapter 13.01, *Street Construction Permits*

City of Newport Beach Standard Conditions

The following City-adopted standard operating conditions of approval would apply to the proposed project:

- The Applicant will be required to identify planned travel patterns for haul vehicles, and obtain a Haul Route permit from the City.
- The project will be required to prepare a construction traffic management plan.

5.14.6 Level of Significance Before Mitigation

Upon compliance with regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.14-1 to 5.14-7.

5.14.7 Level of Significance After Mitigation

Transportation and traffic impacts would be mitigated to less than significant and no mitigation would be required.

5.15 UTILITIES AND SERVICE SYSTEMS

This section of the Draft EIR discusses the current conditions for utility providers, including water, wastewater, stormwater, solid waste, electricity, and natural gas services, and the proposed projects effects on these providers. The analysis in this section is based, in part, on the following technical studies:

- *Water Supply Assessment for Uptown Newport Village Specific Plan Project*, Irvine Ranch Water District, March 2011
- *Preliminary Hydrology Report*, Hall & Foreman, Inc., December 2011
- *Flow Report for Newport Beach (1) Von Karman and (2) Birch Sites*, Utility Systems, Science, and Software (US3), April 2012

5.15.1 Environmental Setting

Water Supply and Distribution Systems

Irvine Ranch Water District

The Irvine Ranch Water District (IRWD) is the water service provider for the project site. It is a multiservice jurisdictional agency that provides potable and nonpotable water supply and wastewater collection, treatment, and disposal services. Its service area includes the City of Irvine and portions of the cities of Orange, Tustin, Santa Ana, Lake Forest, Costa Mesa, and Newport Beach, as well as unincorporated Orange County north of Irvine (IRWD 2011a). For the proposed project, IRWD would only be providing water to the project site. Wastewater collection, treatment, and disposal would be provided by Orange County Sanitation District (OCWD).

IRWD prepares two planning documents to guide water supply decision making:

- **Water Resources Master Plan (WRMP)**, a comprehensive document compiling data and analyses that IRWD considers necessary for its planning needs (primary source for IRWD for water planning) (IRWD 2004)
- **Urban Water Management Plan (UWMP)**, a document required by statute (California Water Code Section 10631, et seq.) The 2010 UWMP was updated and approved by IRWD in May 2011.

Approximately 50 percent of IRWD's water supply is imported through the Metropolitan Water District (MWD) and 50 percent is groundwater pumped from the Orange County Groundwater Basin (Basin), including the Irvine and Lake Forest subbasins (see Figure 5.8-3, *Orange County Main Groundwater Basin and Irvine Subbasin*).

Imported Water Supply Infrastructure

East Orange County Feeder No. 2: The East Orange County Feeder No. 2 (EOCF #2) is one of two major feeders that bring water to the service area. It connects Orange County with the MWD feeder system. The IRWD owns a capacity of 41.4 cubic feet per second (cfs) of the EOCF #2 down to the Coastal Junction, a flow control and measurement vault structure at 25 Creek Road in Irvine.

Allen-McColloch Pipeline: The other major feeder that brings water to the service area of IRWD is the Allen McColloch Pipeline (AMP), of which IRWD owns a capacity of 64.7 cfs.

Orange County Feeder: IRWD receives water from the Orange County Feeder (OCF) via the Weymouth Filtration Plant. IRWD receives 18 cfs from the OCF (IRWD 2011b).

Local Groundwater Supply Infrastructure

Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres: The Dyer Road Wellfield (DRWF) consists of 16 wells, which pump water for IRWD from the Basin. Two additional wells pump from the Deep Aquifer Treatment System (DATS). IRWD is allowed to pump a basin production percentage (BPP) from both systems, which is up to 28,000 acre-feet per year (AFY) from the DRWF and 8,000 from the DATS.

On June 1, 2008, IRWD acquired the water system and a well of the former Orange Park Acres (OPA) Mutual Water company through annexation. The well is operated within the Basin.

Irvine Desalter: The Irvine Desalter purifies water from the Irvine Subbasin (part of the larger Basin). Starting in 2007, the desalter performs two main operations: (1) it removes trichloroethylene (TCE) and other volatile organic compounds (VOC) from the groundwater from a contaminated plume on the former El Toro Marine Corps Air Station (MCAS), and (2) it removes salts and purifies water outside the TCE plume to be used as drinking water. Approximately 3,900 AFY from the desalter are used for landscaping, and an additional 5,100 AFY are used as drinking water (IRWD 2011c).

Current Potable Water Usage in IRWD Service Area

By 2030, IRWD projects to have a total water supply of 118,069 AFY and demand of 88,579 AFY (a difference of 29,490 AFY). Table 5.15-1 breaks down the supply and demand for the next 18 years at five-year intervals. Based on historic annual deliveries, IRWD has assumed water imported through MWD has been reduced 16 percent from the average annual allotment. This provides a more conservative assessment of future conditions.

Table 5.15-1
Current and Projected IRWD Water Supplies and Demands without Project (AFY)

Supply	2010	2015	2020	2025	2030
Current Potable Supplies					
MWD Imported (EOCF #2, AMP, OCF)[1]	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Future Groundwater	NA	15,600	22,100	32,600	32,600
Total Supply	**85,469**	**101,069**	**107,569**	**118,069**	**118,069**
Baseline Demand (No Project)	**57,286**	**73,571**	**83,696**	**88,086**	**88,579**
Difference (Supply – Demand)	28,210	27,498	23,873	29,983	29,490

Source: IRWD 2011a
EOCF #2 – East Orange County Feeder #2
AMP – Allen-McColloch Pipeline
OCF – Orange County Feeder
DRWF/DATS/OPA – Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres
[1] IRWD assumes MWD supplies are reduced by 16 percent.

Single and Multiple Dry Year

As required by California Water Code Section 10631(c)(1), single-year dry and multiple-year dry scenarios are used to determine the relation between water supply and demand during times of drought. Historic water

shortages are used to model the single- and multiple-year dry scenarios. IRWD has used the single-dry year of 1977 and the multiple-dry years of 1990-1992 to model these scenarios (IRWD 2011b). Table 5.15-2 shows the relation between supply and demand during a single-year dry scenario and Table 5.15-3 shows the same relationship for the multiple-dry year scenario.

Table 5.15-2
Current and Projected IRWD Water Supplies and Demands for Single-Year Dry Scenario without Project (AFY)

Supply	2010	2015	2020	2025	2030
Current Potable Supplies					
MWD Imported (EOCF #2, AMP, OCF)[1]	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Future Groundwater	NA	15,600	22,100	32,600	32,600
Total Supply	**85,469**	**101,069**	**107,569**	**118,069**	**118,069**
Baseline Demand (No Project)	**61,296**	**78,721**	**89,555**	**94,252**	**94,780**
Difference (Supply – Demand)	24,173	22,348	18,014	23,817	23,289

Source: IRWD 2011a
EOCF #2 – East Orange County Feeder #2
AMP – Allen-McColloch Pipeline
OCF – Orange County Feeder
DRWF/DATS/OPA – Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres
[1] IRWD assumes MWD supplies are reduced by 16 percent.

Table 5.15-3
Current and Projected IRWD Water Supplies and Demands for Multiple-Year Dry Scenarios without Project (AFY)

Supply	2010	2015	2020	2025	2030
Current Potable Supplies					
MWD Imported (EOCF #2, AMP, OCF)[1]	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Future Groundwater	NA	15,600	22,100	32,600	32,600
Total Supply	**85,469**	**101,069**	**107,569**	**118,069**	**118,069**
Baseline Demand (No Project)	**61,296**	**78,721**	**89,555**	**94,252**	**94,780**
Difference (Supply – Demand)	24,173	22,348	18,014	23,817	23,289

Source: IRWD 2011a
EOCF #2 – East Orange County Feeder #2
AMP – Allen-McColloch Pipeline
OCF – Orange County Feeder
DRWF/DATS/OPA – Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres
[1] IRWD assumes MWD supplies are reduced by 16 percent.

Though demand changes, IRWD's supplies remain constant between normal-, single-dry-, and multiple-dry-year scenarios. This is due to the fact that groundwater and MWD imported water account for all of IRWD's potable supply, and reclaimed water, groundwater, and imported water compose most of IRWD's nonpotable supply. Groundwater production typically remains constant or increases in cycles of dry years, even if overdraft of the basin temporarily increases, since groundwater producers reduce their demand on imported

supplies to secure reliability. As to imported water, MWD's 2010 Regional Urban Water Management Plan (RUWMP) shows that MWD can maintain reliable supplies under the conditions that have existed in past dry periods through 2035, including a repeat of the 1990 to 1992 multiple-year dry hydrology and the 1977 single-year dry hydrology. Reclaimed water production also remains constant and is considered "drought proof" as a result of the fact that sewage flows remain virtually unaffected by dry years. Only a small portion of IRWD's nonpotable supply, native water captured in Irvine Lake, is reduced in single-dry and multiple-dry years. The foregoing factors also serve to explain why there is no difference in IRWD's supplies between single-dry and multiple-dry years.

Current Water Use on the Project Site

The existing land uses, the TowerJazz building and Half Dome buildings, use approximately 43 million gallons per month (Rupp 2012). This is equivalent to approximately 1.4 million gallons per day (mgd) and 515.9 million gallons per year (1,583 AFY). Using IRWD's water demand rate of 60 gallon per 1,000 square feet of office space, it can be assumed that the Half Dome building uses approximately 7,601 gallons of water per day (for interior and exterior spaces) (IRWD 2007). This means the TowerJazz building uses 1,392,399 gallons per day.

Wastewater Treatment and Collection

Newport Beach owns and operates a wastewater collection system that collects residential and commercial wastewater and transports it for treatment to the Orange County Sanitation District (OCSD). Two underground sewer pipes are in the vicinity of the project site: an 18-inch concrete pipe at Von Karman and a 10-inch concrete pipe at Birch Street. The Von Karman pipe runs through the northwestern portion of the project site and connects to Von Karman Avenue. It collects wastewater from the existing onsite land uses, has an average flow rate of 0.90 mgd, and a maximum flow rate of 2.17 mgd. It has an operational capacity of 5.83 mgd and it is currently operating at 37.24 percent capacity. Existing onsite sewer lines are shown on Figure 3-12, *Proposed Sewer System: Phase 1 and 2.*

The sewer line at Birch does not currently collect wastewater from the project site but is the closest pipeline to the northeastern portion of the site. It runs north to south in Birch Street, connecting pipelines in Jamboree with pipelines in MacArthur Boulevard. It has an average flow rate of 0.01 mgd and a maximum flow rate of 0.21mgd. The operational capacity is 0.67 mgd and it is currently operating at 31.87 percent capacity. As detailed in Table 5.15-4, both pipelines have remaining capacity.

Table 5.15-4
Existing Sewer Capacity

Pipeline	Average Flow (mgd)	Maximum Flow (mgd)	Capacity (mgd)	Percent Capacity[1]	Remaining Capacity (mgd)
Von Karman	0.90	2.17	5.83	37.24%	3.21
Birch	0.01	0.21	0.67	31.87%	0.46

Source: US3 2012
[1] Due to the rounding of calculations in the sewer capacity study, the "percent capacity" slightly differs from what is directly calculated from the numbers on this table.

Wastewater collected in the pipelines in the City are directed to one of two treatment plants in Orange County, both operated by the OCSD.

Existing Wastewater Generation

The existing land uses, TowerJazz and Half Dome buildings currently account for the existing flows measured near the project site in the Von Karman sewer pipeline (0.90 mgd average and 2.17 mgd maximum) (Hogan 2012). Using the wastewater generation rate for industrial land uses from the Irvine Business Complex 2008 Sub Area Master Plan (SAMP), the Half Dome would generate approximately 6,334 gallons of wastewater per day on average (8,234 gallons at maximum flow), as shown in Table 5.15-5. The remainder of the existing wastewater generation is attributed to the TowerJazz building.

Table 5.15-5
Existing Onsite Wastewater Generation

Land Use	Average Flow Rate Factor (gal/ksf/day)[1]	Maximum Flow Rate Factor (gal/ksf/day)[2]	Average Flow (gpd)	Maximum Flow (gpd)
Half Dome	50	65	6,334	8,234
TowerJazz	NA	NA	893,666	2,161,766
Total	**NA**	**NA**	**900,000**	**2,170,000**

Source: IRWD 2008
Notes:
[1] The average flow rate factor assumed for the Half Dome land use is "Commercial – General Office" in the 2008 IRWD SAMP.
[2] The 2008 SAMP multiplied the average daily flow rate by a factor of 1.3 to determine the maximum daily flow rate.

The Birch pipeline does not currently receive wastewater from the project site since this portion of the site is a parking lot. The existing wastewater flows in the Birch pipeline in Table 5.15-4 are from neighboring land uses.

Orange County Sanitation District

OCSD owns and operates Treatment Plant No. 1 in Fountain Valley, which treats wastewater at advanced primary and secondary treatment levels. Plant No. 1 has a maximum capacity for advanced primary and secondary treatment of 204 mgd and treats an average of 95 mgd. About 66 mgd of effluent from Plant No. 1 are sent to the groundwater replenishment system (GWRS) facility in Fountain Valley, which has a capacity of 70 mgd. After treatment at the GWRS, this water is used to supplement the Main Orange County Groundwater Basin to control saltwater intrusion and to recharge the basin. An additional 3.3 mgd of effluent from Plant No. 1 are sent to the Orange County Water District (OCWD) for tertiary treatment in a separate facility; this water is used by OCWD customers for irrigation (Covarrubias 2012). This water is delivered to customers for irrigation use. The balance of the effluent from Plant No. 1, approximately 25.7 mgd, is sent to Reclamation Plant No. 2 in the City of Huntington Beach and is subsequently discharged through the ocean outfall system.

A second water treatment plant owned and operated by OCSD, Plant No. 2, receives wastewater from several major sewers, in addition to Plant No. 1, and has an average treatment flow rate of 112 mgd and a maximum treatment capacity of 168 mgd.

Storm Drainage Systems

The storm drainage systems in the City of Newport Beach are managed and operated by both the City and the Orange County Flood Control Division of the Orange County Public Works Department. The county is responsible for maintaining and repairing regional systems, and the City is in charge of local improvements (Newport Beach 2006a).

Currently, drainage on the project site runs from the southeast to the northwest. It is relatively flat with a maximum elevation drop of roughly 10 feet over a distance of approximately 650 feet. See Table 5.8-1, *Site Drainage Rates and Volumes, Existing Conditions*, and Section 5.8.1, *Environmental Setting*, in Chapter 5.8, *Hydrology and Water Quality*, for a detailed description of the project site's existing hydrology.

A series of storm drains currently provide drainage for the project site. Four separate storm drain lines ultimately connect with larger storm drain systems adjacent to the project site to the northwest. The northernmost area of the site, which is mostly a parking lot, has three separate storm drain lines. These storm drain lines extend beyond the property limits and join a 66-inch reinforced concrete pipe (RCP) in the drive aisle/parking lot of the adjacent property (Koll project). The fourth storm drain line is a larger system that collects the storm flows from the remainder of the site. This system directs stormwater flows to a 48-inch RCP storm drain before discharging into a series of detention ponds and ultimately discharging into a 54-inch RCP in MacArthur Boulevard.

Solid Waste

Since the project site borders the City of Irvine, solid waste pickup services are currently provided by franchise waste haulers that work for the City of Irvine. Solid waste is transported to the Frank R. Bowerman landfill in the City of Irvine (11002 Bee Canyon Access Road), which is owned and operated by Orange County Waste and Recycling (OCWR). As shown on Table 5.15-6, the landfill has a daily capacity of 11,500 tons and a remaining disposal capacity of 198.1 million cubic yards, as of June 30, 2011. In January 2012, the maximum daily intake was 5,385 tons, 6,115 less than the daily capacity (CalRecycle 2012b).

Table 5.15-6
Daily Intake and Remaining Capacity for the Frank R. Bowerman Landfill

Daily Intake Capacity	Remaining Capacity	Closure Date
11,500 tons per day	198.1 million cubic yards	2053

Source: Goh 2011

The existing land uses include two buildings, both leased by TowerJazz. The Half Dome is 126,675 square feet and TowerJazz is 311,452 square feet. Using the solid waste generation rates found in the EIR prepared for the 2006 City of Newport Beach General Plan, the Half Dome generates approximately 1,267 pounds per day and the TowerJazz building generates approximately 2,180 pounds per day for a total of 3,447 pounds, as shown in Table 5.15-7.

Table 5.15-7
Existing Solid Waste Generation on Project Site

Building Square Footage	Solid Waste Generation Rate	Total
Half Dome Building (126,675 sf)	1 lb/100 sf/day	1,267 lbs/day
TowerJazz Building (311,452 sf)	0.007 lbs/sf/day	2,180 lbs/day
Total	**NA**	**3,447 lbs/day**

Source: Newport Beach 2006a
Note: lbs/sf/day = pounds per square foot per day (for industrial land uses)

Electricity

Southern California Edison Company (SCE) is the distribution provider for electricity in Newport Beach. Electrical structures and power lines are owned and operated by SCE. New electrical service within SCE's service area is provided on an as-needed basis. The existing land uses use approximately 31 million kWh electricity per quarter or 339,726 kWh per day (Rupp 2012). Based the California Energy Commission (CEC), office land uses use approximately 16.08 kWh of electricity per square foot per year (CEC 2009a). Therefore, the Half Dome building uses approximately 2,036,934 kWh per year. The remainder of the annual onsite electricity use, 28,963,066 kWh, is used by the TowerJazz building.

Natural Gas

The Southern California Gas Company (SCGC) serves the project area and owns most of the natural gas facilities and pipelines in the City (Newport Beach 2006a). The existing land uses use approximately 60,000 million British Thermal Units (MBTUs) of natural gas per quarter, or 657,534,246 kBTUs per day (Rupp 2012). The CEC estimates natural gas use of office land uses to be 17.90 kBTUs per square foot per year. Therefore, the Half Dome building uses approximately 2,267,483 kBTUs per year, or 6,212 kBTUs per day. The remainder of the onsite natural gas use, 657,528,034 kBTUs per day, is used by the TowerJazz building.

Regulatory Setting

Water

The Drought Water Bank

The California Department of Water Resources (CDWR) established a 2009 Drought Water Bank to help facilitate the exchange of water throughout the state and assist water suppliers like MWD who are at risk of experiencing drought-related shortages, thus requiring supplemental supplies to meet anticipated demands. During drought conditions, CDWR purchases water from willing sellers upstream of the Sacramento-San Joaquin Delta and transfers it to public and private water suppliers that are at risk of experiencing water shortages. The Drought Water Bank is meant to be used for short periods while a supplier cannot obtain the water it needs.

20x2020 California Water Plan

To improve the Sacramento-San Joaquin Delta water quality and supply conditions, former Governor Schwarzenegger introduced a seven-part comprehensive plan in 2008 to reduce per capita urban water use. The goal of this plan is for municipalities to reduce urban water use to 20 percent below their 2005 levels by year 2020 (20x2020). Beginning in 2009, opportunities to implement programs, enforcement mechanisms, and regional and statewide goals were made available to state water agencies in the 20x2020 Water Conservation Plan. Coordinating agencies should prepare annual progress reports to present progress of implementation programs.

Principles Governing CEQA Analysis of Water Supply

In *Vineyard Area Citizens for Responsible Growth, Inc., v. City of Rancho Cordova* (February 1, 2007), the California Supreme Court articulated the following principles for analysis of future water supplies for projects subject to CEQA:

- To meet CEQA's informational purposes, the EIR must present sufficient facts to decision makers to evaluate the pros and cons of supplying the necessary amount of water to the project.

- CEQA analysis for large, multiphase projects must assume that all phases of the project will eventually be built and the EIR must analyze, to the extent reasonably possible, the impacts of providing water to the entire project. Tiering cannot be used to defer water supply analysis until future phases of the project are built.

- CEQA analysis cannot rely on "paper water." The EIR must discuss why the identified water should reasonably be expected to be available. Future water supplies must be likely, rather than speculative.

- When there is some uncertainty regarding availability of future water supply, an EIR should acknowledge the degree of uncertainty, include a discussion of possible alternative sources, and identify the environmental impacts of such alternative sources. Where a full discussion still leaves some uncertainly about the long-term water supply's availability, mitigation measures for curtailing future development in the event that intended sources become unavailable may become a part of the EIR's approach.

- The EIR does not need to show that water supplies are definitely assured because such a degree of certainty would be "unworkable, as it would require water planning to far outpace land use planning." The requisite degree of certainty of a project's water supply varies with the stage of project approval. CEQA does not require large projects, at the early planning phase, to provide high degree of assurances of certainty regarding long-term future water supplies.

- The EIR analysis may rely on existing urban water management plans, as long as the project's new demand was included in the water management plan's future demand accounting.

- The ultimate question under CEQA is not whether an EIR establishes a likely source of water, but whether it adequately addresses the reasonably foreseeable impacts of supplying water to the project.

Electricity and Natural Gas

Building Requirements for Energy Conservation

The California's Energy Efficiency Standards for Residential and Nonresidential buildings (Title 24, Part 6, of the California Code of Regulations) requires new buildings and reconstruction projects meet California building energy efficiency standards. All projects being constructed on January 1, 2010, and after are required to increase their energy efficiency by 15 percent over the 2005 energy efficiency standards.

California Public Utilities Commission

Established in 1911, the California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The commission is organized into several advisory units, an enforcement division, and a strategic planning group. Both SCE and SCGC are regulated by the CPUC.

5.15.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project:

U-1 Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-3 Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

U-5 Would result in a determination by the wastewater treatment provider which serves or may serve the project that is has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold U-7

This impact will not be addressed in the following analysis.

5.15.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

IMPACT 5.15-1: PROJECT-GENERATED WASTEWATER WOULD NOT EXCEED THE CAPACITY OF EXISTING SEWER PIPELINES AND WOULD BE ADEQUATELY TREATED BY ORANGE COUNTY SANITATION DISTRICT. [THRESHOLDS U-1, U-2 (PART), AND U-5]

Impact Analysis: The proposed project would generate wastewater during both phases of development and would require the construction of new sewer lines. Figure 3-12, *Proposed Sewer System: Phase 1 and 2*, shows the existing sewer lines (purple) and the proposed sewer lines (blue and green). Sewer lines to sever the entire project site will be privately owned and maintained. Table 5.15-8 details wastewater flows for both phases of development.

Table 5.15-8
Projected Sewer Capacity with Project

Pipeline	Average Flow GPD	Average Flow MGD	Maximum Flow[1] GPD	Maximum Flow[1] MGD	Capacity (MGD)	Percent Capacity	Remaining Capacity (MGD)
Von Karman (Phase 1 & 2)							
Phase 1							
TowerJazz Building	893,666	0.90	2,161,766	2.16	5.83	37.22%	3.66
Proposed Residential (680 units)	91,800	0.09	289,170	0.29	5.83	5.15%	5.53
Proposed Retail	7,360	0.01	23,184	0.02	5.83	0.34%	5.81
Total Phase 1	**992,826**	**1.00**	**2,474,120**	**2.47**	**5.83**	**42.37%**	**3.36**
Existing Land Uses	900,000	0.90	2,170,000	2.17	5.83	37.24%	3.21
Increase from Existing	92,826	0.10	304,120	0.30	5.83	5.13%	0.15
Phase 2							
Proposed Residential (303 units)	40,905	0.04	128,851	0.13	5.83	2.23%	5.7
Total Phase 1 & 2	**140,065**	**0.14**	**441,205**	**0.44**	**5.83**	**7.55%**	**5.39**
Existing Land Uses	900,000	0.90	2,170,000	2.17	5.83	37.24%	3.21
Change from Existing	-759,935	-0.76	-1,728,795	-1.73	5.83	-29.69%	+2.18
Birch (Phase 2)							
Existing Offsite Flows	—	0.01	—	0.21	0.67	31.87%	0.46
Proposed Residential (261 units)	35,235	0.04	110,990	0.11	0.67	35.82%	0.56
Total Phase 2 (with Existing Offsite Flows)	—	**0.05**	—	**0.32**	**0.67**	**47.76%**	**0.35**

Source: US3 2012; IRWD 2008
Notes:
1 Maximum flow is average flow multiplied by a factor of 3.15 (Hogan 2012)
2 Values for the TowerJazz building are the same as the values in Table 5.15-4, *Existing Sewer Capacity*

Phase 1

Phase 1 of the Uptown Newport project would allow for the development of 680 residential units and 11,500 square feet of retail space. Combined, these uses would generate an estimated 99,160 gallons of wastewater per day (312,354 gallons at peak flow), as shown in Table 5.15-7. Wastewaters flowing from the site during Phase 1 would only affect the Von Karman pipeline.

When combined with the existing TowerJazz building, the flow during the first phase of the project would be 992,826 gallons per day (2,474,120 gallons during peak flow). The maximum flow rate would reach 44.32 percent capacity with a remaining capacity of 3.36 mgd.

In order to connect to the existing lines, the project applicant would be required to connect a private sewer easement to the Koll property (City of Newport Beach Municipal Code Section 14.24.060).

Phase 2

The second phase of development on the project site would include 564 residential units and the removal of the TowerJazz building. Approximately 303 of these units would generate wastewater that flows to the Von Karman sewer pipeline. The remaining 261 units would generate wastewater that would flow to the Birch pipeline. For the Von Karman pipeline, even when the existing flows from the TowerJazz facility and other

onsite land uses are included, the remaining capacity is sufficient (3.23 mgd). When the existing flows are subtracted from the total flow, to account for the removal of these land uses, wastewater flow is projected to be 0.43 mgd during peak periods, leaving approximately 5.40 mgd of capacity.

The Birch pipeline would only receive wastewater after the second phase of development is constructed from the northeastern section of the project site (see Figure 3-12, *Proposed Sewer System: Phase 1 and 2*). At this location, the project would generate an average of 0.04 mgd and a maximum of 0.11 mgd. When combined with existing offsite flows, the average flow would total 0.05 mgd and the maximum flow would total 0.32 mgd, leaving a remaining capacity of 0.35 mgd during peak flows. Since there are no existing onsite sewer pipelines, the project applicant would be required to obtain a private sewer easement from the adjacent property in order to reach the existing line in Birch Street (City of Newport Beach Municipal Code Section 14.24.060).

Wastewater Treatment

OCSD operates two plants that treat wastewater from the City of Newport Beach. The capacity of Plant 1 is 204 mgd and the capacity of Plant 2 is 168 mgd. Table 5.15-9 summarizes the remaining capacities for wastewater treatment with the proposed project. After phase 1, the remaining capacity of the two plants would be 164 mgd and after phase 2, the remaining capacity would be 164.82 mgd. There is sufficient capacity to treat project-generated wastewater.

Table 5.15-9
OCSD Wastewater Treatment Capacity, with Project

Plant	Average Treatment	Capacity	Remaining Capacity		
			Existing	After Phase 1	After Phase 2
Plant 1	95.00 mgd	204.00 mgd	109.00 mgd	108.5 mgd	108.91 mgd
Plant 2	112.00 mgd	168.00 mgd	56.00 mgd	55.5	55.91 mgd
Total	**207.00 mgd**	**372.00 mgd**	**165.00 mgd**	**164.00 mgd**	**164.82 mgd**

Source: Source: US3 2012; IRWD 2008
Notes: Assumes half of wastewater generated by the project goes to plant 1 and the other half goes to plant 2. However, either plant would have the capacity to treat all of the project's wastewater.

IMPACT 5.15-2: ***PROJECTED WATER SUPPLY AND DELIVERY SYSTEMS WOULD BE ADEQUATE TO MEET PROJECT REQUIREMENTS; PROJECT SITE WATER DEMAND WOULD BE SUBSTANTIALLY REDUCED UPON IMPLEMENTATION OF THE PROJECT IN COMPARISON TO EXISTING WATER USE. [THRESHOLDS U-2 (PART) AND U-4]***

Impact Analysis:

Phase 1

Projected water demand for Phase 1 of the proposed project is shown in Table 5.15-10. Phase 1 includes 680 housing units, 1.03 acres of park space, 11,500 square feet of commercial area, and 2.61 acres of right-of-way. The water supply analysis (WSA) uses water use factors to assign water demands to the various land use types and aggregate demands. The water use factors are based on average water use and incorporate the effect of IRWD's tier-rate conservation pricing and its other water conservation programs. IRWD has calculated the proposed project's water demand for Phase 1 to be 116,409 gpd (130 AFY). The water demands per land use for Phase 1 are shown in Table 5.15-10.

It should be noted that, during the first phase, the existing TowerJazz building would remain operating on the project site and is included with the Phase 1 water demand projection. The water demand of the TowerJazz building is approximately 1,392,399 gpd. The water demand of the Half Dome (approximately 7,601 gpd) is not included.

Table 5.15-10
Project Water Demand: Phase 1

Demand Category	Demand Factor	Percent Irrigated	Project Demand	
			gpd	AFY
Phase 1				
High Density Residential (Interior)	145 gal/DU/day		98,600	110.4
High Density Residential (Exterior)	15 gal/DU/day		10,200	11.4
High Density Residential Irrigation Demand	2,800 gal/acre/day	20%	4,844	5.4
Community Commercial (Interior)	62 gal/ksf/day		713	0.8
Community Commercial (Exterior)	9 gal/ksf/day		104	0.1
Community Commercial Irrigation Demand	3,500 gal/ac/day	20%	0	0.0
Community Park Irrigation Demand	2,200 gal/ac/day	86%	1,949	2.2
TowerJazz building			*1,392,399*	*1,559.7*
Subtotal Phase 1			1,508,809	1,690.1
Existing Land Uses			*1,400,000*	*1,568.2*
Existing Water Demand			1,400,000	1,568.2
Increase from Existing			+108,809	+121.9

Source: IRWD 2012
Note: This demand includes both potable and nonpotable water demands. Irrigation (nonpotable) demand is discussed below under "Nonpotable Water."

Phase 2

The second phase of development would replace the existing TowerJazz building with 564 multifamily residential units, 1.02 acres of park space. As shown in Table 5.15-11, water demand of the land uses developed in Phase 2 would be 97,781 gpd (109.51 AFY), creating a total project demand of 214,191 gpd (239.9 AFY).

Table 5.15-11
Project Water Demand: Phase 2 and Project Buildout

Demand Category	Demand Factor	Percent Irrigated	Project Demand	
			gpd	AFY
Phase 2				
High Density Residential (Interior)	145 gal/DU/day		81,780	91.6
High Density Residential (Exterior)	15 gal/DU/day		8,460	9.5
High Density Residential Irrigation Demand	2,800 gal/acre/day	20%	5,611	6.3
Community Commercial (Interior)	62 gal/ksf/day		0	0.0
Community Commercial (Exterior)	9 gal/ksf/day		0	0.0
Community Commercial Irrigation Demand	3,500 gal/ac/day	20%	0	0.0
Community Park Irrigation Demand	2,200 gal/ac/day	80%	1,930	2.2
Subtotal Phase 2			***97,781***	***109.5***
Total (Phase 1 and 2)			**214,191**	**239.9**
Existing Water Demand			1,400,000	1,568.2
Decrease from Existing			-1,185,809	-1,328.3

Source: IRWD 2012
Note: This demand includes both potable and nonpotable water demands. Irrigation (nonpotable) demand is discussed below under "Nonpotable Water."

Upon buildout, the proposed project has a water demand that is approximately 1,328.3 AFY less than the existing light industrial land uses. The proposed land uses would use approximately 239.9 AFY and the removal of the existing land uses eliminates the use of approximately 1,568.2 AFY.

Projected Water Demand in IRWD Service Area

Potable Water

Table 5.15-12 shows IRWD's current and projected potable water use under normal conditions with and without the proposed project. As can be seen, existing water demand is substantially greater than water demand upon buildout of the proposed project.

Table 5.15-12
Current and Projected IRWD Potable Water Supplies and Demands with Project (AFY)

Supply/Demand	2010	2015	2020	2025	2030
Current and Projected Potable Supplies					
MWD Imported (EOCF #2, AMP, OCF)[1]	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Future Groundwater	NA	15,600	22,100	32,600	32,600
Total Supply	**85,469**	**101,069**	**107,569**	**118,069**	**118,069**
Current and Projected Potable Demands					
Baseline Demand (No Project)[2]	57,286	73,571	83,696	88,086	88,579
Buildout Demand in existing WRMP (2004)	57,286	73,161	83,042	87,432	87,922
Demand with Project[3]	**57,286**	**73,137**	**82,784**	**86,947**	**87,434**
IRWD Surplus (Total Supply minus Demand with Project)	28,183	27,933	24,785	31,122	30,636

Source: IRWD 2011a
EOCF #2 = East Orange County Feeder #2
AMP = Allen-McColloch Pipeline
OCF = Orange County Feeder
DRWF/DATS/OPA = Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres
WRMP = Water Resources Management Plan
[1] IRWD assumes MWD allocations are reduced by 16 percent.
[2] The Baseline Demand includes existing and committed demands of the IRWD.
[3] IRWD's calculation for Demand with Project includes other expected project demands in the service area to determine the need for water in the service area. Project-specific water demand is provided in Tables 5.15-9 and 5.15-10.

Tables 5.15-13 and 5.15-14 shows IRWD's current and projected water use with and without the proposed project under single-year and multiple-year dry conditions, respectively. As with the normal conditions scenario, water demand would decrease with the removal of the TowerJazz facility. In both the single-year and multiple-dry year scenarios, the IRWD would have a surplus of potable water.

Table 5.15-13
Current and Projected IRWD Potable Water Supplies and Demands for Single-Year Dry Scenario, with Project, in AFY

Supply/Demand	2010	2015	2020	2025	2030
Current and Projected Potable Supplies					
MWD Imported (EOCF #2, AMP, OCF)[1]	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Future Groundwater	NA	15,600	22,100	32,600	32,600
Total Supply	**85,469**	**101,069**	**107,569**	**118,069**	**118,069**
Current and Projected Potable Demands					
Baseline Demand (No Project)[2]	61,296	78,721	89,555	94,252	94,780
Buildout Demand in existing WRMP (2004)	61,296	78,282	88,855	93,552	94,076
Demand with Project[3]	**61,296**	**78,256**	**88,579**	**93,033**	**93,554**
IRWD Surplus (Total Supply minus Demand with Project)	24,173	22,813	18,990	25,036	24,515

Source: IRWD 2011a
EOCF #2 = East Orange County Feeder #2
AMP = Allen-McColloch Pipeline
OCF = Orange County Feeder
DRWF/DATS/OPA = Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres
WRMP = Water Resources Management Plan
[1] IRWD assumes MWD allocations are reduced by 16 percent.
[2] The Baseline Demand includes existing and committed demands of the IRWD.
[3] IRWD's calculation for Demand with Project includes other expected project demands in the service area to determine the need for water in the service area. Project-specific water demand is provided in Tables 5.15-9 and 5.15-10.

Table 5.15-14
Current and Projected IRWD Potable Water Supplies and Demands for Multiple-Year Dry Scenarios, with Project, in AFY

Supply	2010	2015	2020	2025	2030
Current and Projected Potable Supplies					
MWD Imported (EOCF #2, AMP, OCF)[1]	41,929	41,929	41,929	41,929	41,929
DRWF/DATS/OPA	37,900	37,900	37,900	37,900	37,900
Irvine Desalter	5,640	5,640	5,640	5,640	5,640
Future Groundwater	NA	15,600	22,100	32,600	32,600
Total Supply	**85,469**	**101,069**	**107,569**	**118,069**	**118,069**
Current and Projected Potable Demands					
Baseline Demand (No Project)[2]	61,296	78,721	89,555	94,252	94,780
Buildout Demand in existing WRMP (2004)	61,296	78,282	88,855	93,552	94,076
Demand with Project[3]	**61,296**	**78,256**	**88,579**	**93,033**	**93,554**
IRWD Surplus (Total Supply minus Demand with Project)	24,173	22,813	18,990	25,036	24,515

Source: IRWD 2011a
EOCF #2 = East Orange County Feeder #2
AMP = Allen-McColloch Pipeline
OCF = Orange County Feeder
DRWF/DATS/OPA = Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres
WRMP = Water Resources Management Plan
[1] IRWD assumes MWD allocations are reduced by 16 percent.
[2] The Baseline Demand includes existing and committed demands of the IRWD.
[3] IRWD's calculation for Demand with Project includes other expected project demands in the service area to determine the need for water in the service area. Project-specific water demand is provided in Tables 5.15-9 and 5.15-10.

Nonpotable Water

Nonpotable water does not represent a large portion of the proposed project's water demand. As shown on Table 5.15-11, irrigation demands are assumed for high density residential (20 percent of area is irrigated) and community park (86 percent of the area is irrigated).[1]

The nonpotable water demand at the buildout of Phase 1 would be 6,793 gpd, including 4,844 gpd for residential land uses and 1,949 gpd for park space.

At the buildout of Phase 2, nonpotable water demand would be 7,541 gpd, including 5,611 gpd for residential land uses and 1,930 for park space. The combined total nonpotable water demand for the proposed project would be 14,344 gpd.

Table 5.15-15 provides the nonpotable water demand projects for the IRWD service area, with and without the proposed project. The single-year and multiple-year dry scenarios depict similar results and can be seen in the WSA (Appendix N).

Table 5.15-15
Current and Projected IRWD Normal Year Nonpotable Water Supplies and Demands with Project (AFY)

Supply/Demand	2010	2015	2020	2025	2030
Current and Projected Nonpotable Supplies					
Existing MWRP & LAWRP	18,657	18,657	18,657	18,657	18,657
MWD Imported Water (Baker & ILP)	20,380	20,380	20,380	20,380	20,380
Irvine Desalter	3,898	3,898	3,898	3,898	3,898
Native Water	4,000	4,000	4,000	4,000	4,000
Future MWRP & LAWRP	10,100	10,100	10,100	10,100	10,100
Total Supply	**57,035**	**57,035**	**57,035**	**57,035**	**57,035**
Current and Projected Nonpotable Demands[1]					
Baseline Demand (No Project)[2]	39,603	38,591	39,730	41,241	41,418
Buildout Demand in existing WRMP (2004)	39,603	38,592	39,731	41,242	41,419
Demand with Project[3]	**39,600**	**38,591**	**39,730**	**41,241**	**41,419**
IRWD Surplus (Total Supply minus Demand with Project)	17,435	18,444	17,305	15,794	15,616

Source: IRWD 2011a
EOCF #2 = East Orange County Feeder #2
AMP = Allen-McColloch Pipeline
OCF = Orange County Feeder
DRWF/DATS/OPA = Dyer Road Wellfield/Deep Aquifer Treatment System/Orange Park Acres
WRMP = Water Resources Management Plan
[1] IRWD assumes MWD allocations are reduced by 16 percent.
[2] The Baseline Demand includes existing and committed demands of the IRWD.
[3] IRWD's calculation for Demand with Project includes other expected project demands in the service area to determine the need for water in the service area. Project-specific water demand is provided in Tables 5.15-9 and 5.15-10.

[1] No irrigation demands are assumed for the 11,500-square-foot commercial building because it is a ground-floor land use incorporated into the residential buildings. The irrigation demands for this space are already accounted for as part of the residential building and common open space.

IMPACT 5.15-3: POST-DEVELOPMENT SITE STORMWATER FLOW WOULD BE REDUCED IN COMPARISON TO EXISTING CONDITIONS, AND PROPOSED ONSITE AND EXISTING OFFSITE STORM DRAIN SYSTEMS WOULD HAVE ADEQUATE CAPACITY TO CAPTURE AND CONVEY RUNOFF. [THRESHOLD U-3]

Phase 1

The first phase of development includes approximately 680 residential units, 11,500 square feet of retail space, 1.03 acres of parkland, and 2.61 acres of rights-of-way. The total developed area would be 12.29 acres. The storm drain system under the developed condition would closely mimic that of the existing condition. Locations of proposed storm drains are shown in Figure 5.8-5, *Proposed Drainage Plan*. The proportion of pervious area onsite would increase from 13 percent in existing conditions to 22 percent in post project conditions through development of a park and other common open space/landscaped areas.

The project would maintain the existing drainage pattern of the site, which generally flows from southeast to northwest. Three separate connections would be provided to the existing storm drain systems at the northwest property boundary. The southernmost connection would join the existing 48-inch RCP that currently serves the site. The remaining two connections would replace three existing 18-inch RCP storm drain lines that currently service the site. These 18-inch storm drain lines ultimately join an existing 66-inch RCP within the adjacent property to the northwest (Koll project). As with existing conditions, no offsite flows would be received by the project site.

Onsite storm drain systems serving Phase 1 and Phase 2 would be constructed during the Phase 1 development, including proposed storm drains in the eastern and central parts of Phase 1 that would discharge into an infiltration basin under the proposed park near the south end of the site. An outflow pipe from the infiltration basin would carry stormwater exceeding the design capacity of the basin back to the storm drain system. A full description of post-development hydrological flow rates is included in Section 5.8, *Hydrology and Water Quality*.

Phase 2

For the Phase 2 portion of construction, storm drains would be installed to connect the Phase 2 portions of the site with two existing storm drains in the Koll project property.

At site buildout, the stormwater flow rates would be less than the existing condition because of the increase in pervious surface. Since the development of the site causes a decrease in the peak flows and storm volumes produced from the site, providing onsite mitigation is not required. Also, since the existing drainage system is being mimicked by the drainage system under the developed condition, upgrade of downstream storm drain lines is not necessary. Both the existing 66-inch RCP storm drain and the 48-inch RCP storm drain are sufficiently sized to continue receiving flows from the site after development.

IMPACT 5.15-4: THE FRANK R. BOWERMAN LANDFILL HAS ADEQUATE CAPACITY TO ACCOMMODATE PROJECT-GENERATED SOLID WASTE. [THRESHOLD U-6]

Phase 1

Phase 1 of the project would generate 6,597 pounds of solid waste per day (1,204 tons per year), as shown in Table 5.15-16. (See Table 5.15-7 for the existing solid waste generation rates.) The TowerJazz building would continue operating on the project site during the first phase of development and would still be expected to generate 2,108 pounds of solid waste per day. The Frank R. Bowerman landfill has a daily

maximum intake load of 11,500 tons per day. In January 2012, the highest daily intake was 5,385 tons (CalRecycle 2012b). The proposed project would not cause the daily intake load to be exceeded.

Table 5.15-16
Proposed Project Solid Waste Generation: Phase 1

Units/Square Feet	Solid Waste Generation Rate	Solid Waste Generation
Phase 1		
680 residential units (multifamily)	6.41 lbs/unit/day	4,359 lbs/day (796 tons/yr)
11,500 square feet commercial	5 lbs/1,000 sf/day	58 lbs/day (11 tons/yr)
TowerJazz Building	0.007 lbs/sf/day	2,180 lbs/day (398 tons/yr)
Phase 1 Total		**6,597 lbs/day (1,204 tons/yr)**
Existing Solid Waste Generation		*3,447 lbs/day (629 tons/yr)*
Change from Existing		*+ 3,150 lbs/day (575 tons/yr)*

Source: Newport Beach 2006a

Landfill Capacity

The Frank R. Bowerman landfill has a remaining capacity of 198.1 million cubic yards. Since the proposed project's solid waste generation is calculated in tons per day, these are converted to cubic yards to determine how much solid waste the project would contribute to the landfill. According to the California Department of Resources Recycling and Recovery (CalRecycle), typical household waste, which would be the majority generated by the proposed project, has a weight of approximately 800 pounds per cubic yard (CalRecycle 2012a). Therefore, Phase 1 would generate approximately 8.2 cubic yards of solid waste per day, or 2,993 cubic yards per year. The landfill has adequate capacity to accommodate the solid waste flow of Phase 1.

Phase 2

After the completion of the second phase of development, the proposed project would generate 8,032 pounds of solid waste per day, or 4,585 (2.3 tons per day or 837 tons per year) more compared to existing conditions, as shown in Table 5.15-17. This increase would be equal to about 5.7 cubic yards of solid waste per day or 2,081 cubic yards per year. The landfill has adequate capacity to accommodate the solid waste flow of the proposed project, and the daily maximum intake load would not be exceeded.

Table 5.15-17
Proposed Project Solid Waste Generation: Phase 2

Units/Square Feet	Solid Waste Generation Rate	Solid Waste Generation
Phase 2		
564 residential units (multifamily)	6.41 lbs/unit/day	3,615 lbs/day (660 tons/yr)
Phase 2 Total		*3,615 lbs/day (660 tons/yr)*
Total (Phase 1 and 2)		**8,032 lbs/day (1,467 tons/yr)**
Change from Existing		***+4,585 lbs/day (837 tons/yr)***

Source: Newport Beach 2006a

IMPACT 5.15-5: IN COMPARISON TO EXISTING USES, PROJECT DEVELOPMENT WOULD SUBSTANTIALLY REDUCE DEMAND FOR ELECTRICITY AND NATURAL GAS. [NO SPECIFIC THRESHOLD]

Phase 1

Phase 1 development would include 680 residential units, 5,500 square feet of retail, and 6,000 square feet of restaurant space. Once constructed, it would use approximately 2,698,080 kWh of electricity and 9,734,015 kBTUs of natural gas per year, as shown on Table 5.15-18. The TowerJazz building would continue to operate during the first phase of the proposed project, creating a total electricity consumption of 31,661,146 kWh per year and natural gas consumption of 240,007,466,425 kBTUs per year. This would be an increase of 661,146 kWh of electricity per year and 7,446,425 kBTUs of natural gas per year over existing conditions.

Table 5.15-18
Proposed Project Electricity and Natural Gas Generation: Phase 1

Units or Square Feet	*Generation Rate*	*Total Generation*
Electricity		
680 residential units (multifamily)	3,512.03 kWh/unit/year	2,388,180 kWh/year
5,500 square feet retail	13.44 kWh/sf/year	73,920 kWh/year
6,000 square feet restaurant	39.33 kWh/sf/year	235,980 kWh/year
TowerJazz building	NA	28,963,066 kWh/year
	Total Electricity	**31,661,146 kWh/year**
	Existing Electricity Use	*31,000,000 kWh/year*
	Increase over Existing	*661,146 kWh/year*
Natural Gas		
680 residential units (multifamily)	11,973.28 kBTU/unit/year	8,141,830 kBTU/year
11,500 square feet commercial	2.11 kBTU/sf/year	11,605 kBTU/year
6,000 square feet restaurant	263.43 kBTU/sf/year	1,580,580 kBTU/year
TowerJazz	NA	239,997,732,410 kBTU/year
	Total Natural Gas	**240,007,466,425 kBTU/year**
	Existing Natural Gas	*240,000,000,000 kBTU/year*
	Increase over Existing	*7,466,425 kBTU/year*

Sources: CalEEMod Version 2011.1.1; CEC 2009a; CEC 2009b.

Phase 2

Phase 2 of the proposed project includes the construction of 564 residential units and the removal of the TowerJazz building. After Phase 2 is completed, the proposed project would use approximately 1,980,785 kWh of electricity and 6,752,930 kBTUs of natural gas per year. As shown on Table 5.15-19, the proposed project's electricity use would be less than the existing land uses, but the natural gas use would be greater.

Table 5.15-19
Proposed Project Electricity and Natural Gas Generation: Phase 2

Units/Square Feet	Generation Rate	Generation
Electricity		
564 residential units (multi-family)	3,512.03 kWh/unit/year	1,980,785 kWh/year
Total Electricity		*1,980,785 kWh/year*
Natural Gas		
564 residential units (multi-family)	11,973.28 kBTU/unit/year	6,752,930 kBTU/year
Total Natural Gas		*6,752,930 kBTU/year*
Total Electricity (Phase 1 and 2)		**4,368,965 kWh/year**
Existing Electricity Use		*31,000,000 kWh/year*
Change from Existing		*–26,631,035 kWh/year*
Total Natural Gas (Phase 1 and 2)		**16,486,945 kBTU/year**
Existing Natural Gas Use		*240,000,000,000 kBTU/year*
Change from Existing		*-239,983,513,055 kBTU/year*

Sources: CalEEMod Version 2011.1.1; CEC 2009a; CEC 2009b.

SCE and SCGC both serve the project site and have utilities in the project area. Since the project would use less electricity upon buildout than the existing land uses, it would not create a new demand to be served by the existing electrical infrastructure. SCGC has indicated that the proposed project would be able to use their existing gas mains given compliance with SCGC policies and the California Public Utility Commission regulations.

5.15.4 Cumulative Impacts

Cumulative impacts to utility services would occur when the proposed project, in combination of recent, present, and near future projects, would substantially increase the demand for utilities, resulting in the need to expand or construct new facilities. Table 4-3 in Chapter 4, *Environmental Setting*, lists the cumulative projects in the City of Newport Beach. As with the proposed project, these projects have been, or will be, required to conduct environmental review under CEQA and are approved by the City on a project-by-project basis. Since the proposed project would substantially reduce utility demand in comparison to existing industrial uses at the site, the project would not combine with other cumulative project to result in significant utility impacts.

5.15.5 Existing Regulations and Standard Conditions

Regulations

Water Supply

- City of Newport Beach Municipal Code, Chapter 14.16, Water Conservation and Supply Level Regulations
- City of Newport Beach Municipal Code, Chapter 14.17, Water-Efficient Landscaping

Sewer

- City of Newport Beach Municipal Code, Chapter 14.24, Sewer Connection, Permits

Stormwater Drainage

- City of Newport Beach Municipal Code, Chapter 14.36, Water Quality

Solid Waste Collection and Disposal

State

- California Integrated Waste Management Act of 1989

Local

- Newport Beach Municipal Code, Chapter 12.63, Solid Waste Management

Electricity and Natural Gas

- California Public Utilities Code Sections 727-758
- California Code of Regulations, Title 24, Part 6 (Energy Conservation)

City of Newport Beach Standard Conditions of Approval

There are no specific City-adopted standard operating conditions of approval related to utilities and service systems that are applicable to the proposed project at this time; however, project-specific conditions of approval may be applied to the project by the City during the discretionary approval (site development review, tentative tract map, etc.), subsequent design, and/or construction process.

5.15.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.15-1, 5.15-2, 5.15-3, 5.15-4, and 5.15-5.

5.15.7 Mitigation Measures

No significant impacts are identified and no mitigation measures are required.

5.15.8 Level of Significance After Mitigation

Impacts to utilities and service systems are less than significant.

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6. Significant Unavoidable Adverse Impacts

Chapter 1, *Executive Summary*, contains Table 1-2, which summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. While mitigation measures would reduce the level of impact, the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

Air Quality

Phase 1

- **Impact 5.2-2:** Short-term construction emissions generated by the Uptown Newport project would result in oxides of nitrogen (NO_x) emissions that exceed the South Coast Air Quality Management District's (SCAQMD) regional significance thresholds during site preparation activities (year 2014 for Phase 1 and year 2017 and 2018 for Phase 2) and when construction activities of various phases overlap (year 2017 and 2018) and would cumulatively contribute to the nonattainment designations of the South Coast Air Basin (SoCAB). Of the eight years of construction, project-related construction activities would only exceed SCAQMD's threshold for three of those years because significant off-road equipment use and haul trucks are not necessary during vertical building construction. Mitigation Measure 2-1 would reduce NO_x generated by exhaust. Use of newer construction equipment would reduce construction emissions onsite. However, onsite emissions in addition to offsite emissions generated by haul trucks would generate substantial quantities of NO_x and would continue to exceed SCAQMD's regional significance threshold. Therefore, Impact 5.2-2 would remain significant and unavoidable.

Phase 2

Same significant and unavoidable impact for Phase 1 applies to Phase 2.

Land Use

Phase 1

- **Impact 5.9-3:** The City of Newport Beach has reviewed the proposed project and a determination of consistency with the Airport Environs Land Use Plan (AELUP) for John Wayne Airport (JWA) by the City cannot be made at this time, as the proposed project has not yet been before the Airport Land Use Commission (ALUC) for a determination of consistency. The possibility of an ALUC determination of inconsistency with the AELUP is considered potentially significant**.** No mitigation measures are available that would reduce this impact to less than significant. Therefore, Impact 5.9-3 would remain significant and unavoidable.

Phase 2

Same significant and unavoidable impact for Phase 1 applies to Phase 2.

Noise

Phase 1

- **Impact 5.10-6:** During Phase 1 development, construction activity would have the potential to cause annoyance and interfere with activities of occupants at the nearby office buildings adjacent to the project site and at the TowerJazz facility facing the construction area. Because of the height of the office buildings adjacent to the project site, sound walls to block the line of sight between construction activities and nearby offices would be infeasible. Despite the application of mitigation measures, occupants at the offices adjacent to the project site would be temporarily exposed to elevated noise levels during construction activities, and Impact 5.10-6 would remain significant and unavoidable.

Phase 2

- **Impact 5.10-6:** The operation of heavy construction equipment during construction of Phase 2 would result in high noise levels at the residential buildings constructed under Phase 1, and at office buildings adjacent to the project site. Because of the height of these buildings, sound walls to block the line of sight between construction activities and at nearby residents and office occupants would be infeasible. Despite the application of mitigation measures, nearby noise-sensitive uses would be temporarily exposed to elevated noise levels during construction activities, and Impact 5.10-6 would remain significant and unavoidable.

7. Alternatives to the Proposed Project

7.1 INTRODUCTION

7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in this DEIR.

- "The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (15126.6[b]).

- "The specific alternative of 'no project' shall also be evaluated along with its impact" (15126.6[e][1]).

- "The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (15126.6[e][2]).

- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project" (15126.6[f]).

- "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)" (15126.6[f][1]).

- "For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (15126.6[f][2][A]).

- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (15126.6[f][3]).

For each development alternative, this analysis:

- Describes the alternative,
- Analyzes the impact of the alternative as compared to the proposed project,
- Identifies the impacts of the project that would be avoided or lessened by the alternative,
- Assesses whether the alternative would meet most of the basic project objectives, and
- Evaluates the comparative merits of the alternative and the project.

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

7.1.2 Project Objectives

Pursuant to CEQA Guidelines Section 15126.6(a), alternatives evaluated in an EIR are those that "…would feasibly attain most of the basic objectives of the project." As described in Section 3.3, *Statement of Objectives*, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts:

1. Implement the goals and policies that the Newport Beach General Plan has established for the Airport Area and the Integrated Conceptual Plan Development Plan.
2. Develop a mixed-use residential village characterized by a diversity of building and housing types that is consistent with the prescribed minimum density of 30 dwelling units and maximum of 50 dwelling units per net acre averaged over the 25.05 acre project site.
3. Develop up to 11,500 square feet of retail commercial uses to serve local residents, businesses and visitors.
4. Provide housing in close proximity to jobs and supporting services, with pedestrian-oriented amenities that facilitate walking and enhance livability.
5. Integrate neighborhood parks inter-connected by pedestrian walkways to encourage a sense of community.
6. Develop an attractive, viable project that yields a reasonable return on investment.
7. Provide for the phased transition from existing industrial and office uses to a mixed-use residential village.
8. Provide beneficial site improvements including implementing a Water Quality Management Plan.

7.1.3 Significant Impacts of the Project

As discussed above, a primary consideration in defining project alternatives is their potential to reduce or eliminate significant impacts compared to the proposed project. The impact analysis in Chapter 5 of this

DEIR concludes that the following impacts would remain significant and unavoidable after mitigation for the proposed project:

Air Quality

Phase 1

- **Impact 5.2-2:** Short-term construction emissions generated by the Uptown Newport project would result in oxides of nitrogen (NO_x) emissions that exceed the South Coast Air Quality Management District's (SCAQMD) regional significance thresholds during site preparation activities (year 2014 for Phase 1 and year 2017 and 2018 for Phase 2) and when construction activities of various phases overlap (year 2017 and 2018) and would cumulatively contribute to the nonattainment designations of the South Coast Air Basin (SoCAB). Of the eight years of construction, project-related construction activities would only exceed SCAQMD's threshold for three of those years because significant off-road equipment use and haul trucks are not necessary during vertical building construction. Mitigation Measure 2-1 would reduce NO_x generated by exhaust. Use of newer construction equipment would reduce construction emissions onsite. However, onsite emissions in addition to offsite emissions generated by haul trucks would generate substantial quantities of NO_x and would continue to exceed SCAQMD's regional significance threshold. Therefore, Impact 5.2-2 would remain significant and unavoidable.

Phase 2

Same significant and unavoidable impact for Phase 1 applies to Phase 2.

Land Use

Phase 1

- **Impact 5.9-3:** The City of Newport Beach has reviewed the proposed project and a determination of consistency with the Airport Environs Land Use Plan (AELUP) for John Wayne Airport (JWA) by the City cannot be made at this time, as the proposed project has not yet been before the Airport Land Use Commission (ALUC) for a determination of consistency. The possibility of an ALUC determination of inconsistency with the AELUP is considered potentially significant**.** No mitigation measures are available that would reduce this impact to less than significant. Therefore, Impact 5.9-3 would remain significant and unavoidable.

Phase 2

Same significant and unavoidable impact for Phase 1 applies to Phase 2.

Noise

Phase 1

- **Impact 5.10-6:** During Phase 1 development, construction activity would have the potential to cause annoyance and interfere with activities of occupants at the nearby office buildings adjacent to the project site and at the TowerJazz facility facing the construction area. Because of the height of the office buildings adjacent to the project site, sound walls to block the line of sight between construction activities and nearby offices would be infeasible. Despite the application of mitigation

measures, occupants at the offices adjacent to the project site would be temporarily exposed to elevated noise levels during construction activities, and Impact 5.10-6 would remain significant and unavoidable.

Phase 2

- **Impact 5.10-6:** The operation of heavy construction equipment during construction of Phase 2 would result in high noise levels at the residential buildings constructed under Phase 1 and at office buildings adjacent to the project site. Because of the height of these buildings, sound walls to block the line of sight between construction activities and nearby residents and office occupants would be infeasible. Despite the application of mitigation measures, nearby noise-sensitive uses would be temporarily exposed to elevated noise levels during construction activities, and Impact 5.10-6 would remain significant and unavoidable.

7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons why they were not selected for detailed analysis in this DEIR.

7.2.1 Alternative Project Location

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (CEQA Guidelines Section 15126.6[f][2][A]). Key factors in evaluating the feasibility of potential offsite locations for EIR project alternatives include:

- if it is in the same jurisdiction;
- whether development as proposed would require a General Plan Amendment, and;
- whether the project applicant could reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent) (CEQA Guidelines Section 15126.6[f][1]).

Since the project applicant does not own or control other property within the City, the evaluation of potential alternate sites focused on sites that could accommodate a development similar to the proposed project without a General Plan Amendment within the City limits.

In addition to the Airport Area, three other areas in the City allow mixed use similar to the proposed project. These include a strip of parcels along the northern side of Coast Highway in the Mariners Mile Corridor, a number of parcels along the northern end of Newport Center fronting San Joaquin Hills Road, and a number of interior parcels of the Cannery Village area of the City. As shown in Figures LU26, “Mariners Mile,” LU21, “Newport Center/Fashion Island,” and LU19, “Balboa Peninsula, Lido Village, Cannery Village, McFadden Square,” of the City’s General Plan Land Use Element, these areas are designated as Mixed Use Horizontal 1 (MU-H1), Mixed Use Horizontal 3 (MU-H3), and Mixed Use Horizontal 4 (MU-H4), respectively. The allowed residential density for these areas, however, is less than allowed for the proposed project site. The MU-H1 and MU-H4 designations permit a density of 20.1–26.7 dwelling units per net acre (du/acre), and the areas designated MU-H3 are only permitted a maximum of 450 dwelling units. These areas of mixed-use

designation do not have adequate size or density to accommodate a project similar to Uptown Newport, which would include a total of 1,244 dwelling units at a density of 50 du/acre.

Other sites within the Airport Area could accommodate the proposed project without a General Plan Amendment (see Figures 3-3, *Aerial Photograph*, and 3-4, *Airport Area Planning Designations*). There are other parcels with the same land use designation (Mixed-Use Horizontal-2 [MU-H2]) as the proposed project site. However, these parcels are developed, privately owned, and currently occupied. Also, as described in Section 4.0, *Environmental Setting,* an application for development of the adjacent Koll Center site has been filed with the City. There are no vacant parcels within the Airport Area of sufficient size to accommodate a project similar to Uptown Newport.

In general, any development of similar size and type proposed by the project within the Airport Area could experience ongoing operational impacts similar to the proposed project, including air quality (regional), greenhouse gas emissions, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. Demolition impacts, including air quality, greenhouse gas (GHG) emissions, and noise, therefore, could likely not be avoided. However, without a detailed analysis, site-specific impacts for an alternate Airport Area site, including aesthetics, biological resources, cultural resources, geology/soils, hydrology/water quality, and hazards/hazardous materials, cannot be directly compared. With the exception of hazards/hazardous materials, these impacts would be anticipated to be similar to the project site.

An alternate location within the Airport Area would likely eliminate the unique impacts associated with the development of the TowerJazz site and inherent incompatibility of the interim residential use for Phase 1 of the proposed project with the adjacent semiconductor manufacturing facility. The significant impacts associated with this adjacency, however, including operational noise, potential hazards are less than significant for the proposed project upon mitigation.

Development of the proposed project at another location within the Airport Area would not eliminate the significant construction-related air quality and noise impacts or significant land use impact pending a consistency determination of the project with the AELUP.

For these reasons, the City determined that an alternative development site for the proposed project would not be a feasible alternative (CEQA Guidelines Section 15126.6[f][2][B]).

7.2.2 Optional Project Phasing Alternative

This alternative was considered for its potential to reduce or eliminate significant impacts related to the concurrent operation of the TowerJazz facility adjacent to Phase 1 residences that would occur under the proposed project. Under this alternative, demolition of the Half Dome building and Phase 1 site improvements and building construction would proceed as currently defined for the proposed project. Building occupancy of Phase 1 residential structures, however, would be postponed until expiration of the TowerJazz lease and cessation of the semiconductor manufacturing operation.

Under the proposed project, it is anticipated that the earliest residential units in Phase 1 could be constructed and ready for occupancy as early as mid-2015 (the entire phase is anticipated to be complete by 2018). Under the Optional Project Phasing alternative, no residences could be occupied until at least 2017, and under the lease option to renew the lease, Phase 1 residences could not be occupied until the extended lease expiration in 2027. This alternative, however, would allow the retail operations in Phase 1 (11,500 square feet including an upscale restaurant) to commence operation.

The Optional Phasing Alternative would reduce the following project-related significant impacts associated with the adjacency of occupied residential uses and the TowerJazz operation: operational noise and hazards (potential chemical release). Under the proposed project, this interim condition could exist for 6 to 12 years assuming occupancy of some Phase 1 units as early as mid-2015 and extension of the TowerJazz lease to 2027. This alternative would not reduce the construction–related impacts of Phase 2 demolition and development on Phase 1 residents, or potential hazards related to building demolition of final Phase 2 area, since these activities would occur after Phase 1 occupancy. Moreover, it would not reduce or eliminate the potentially significant vibration impact of Phase 1 construction on sensitive TowerJazz equipment.

This alternative would not modify the impact significance of construction-related air quality or noise impacts, or the potentially significant land use impact (AELUP consistency finding).

Although this alternative has the potential to eliminate significant impacts related to the adjacency of Phase 1 residents during TowerJazz operation, it was rejected for further analysis. Both the impacts that would be eliminated under this alternative would be mitigated to less than significant under the proposed project. Although Phase 1 residential units could be constructed, occupancy would be postponed until 2017 (up to 2 years for some of the units) under the best case for this alternative and potentially until 2027 (at least 9 years for all of Phase 1 residents and up to 12 years for some units) under the lease option. It would not be economically feasible for the project applicant to incur the development cost for this extended period of time without a return on investment. Moreover, property and building maintenance costs would be incurred while the residential buildings remained vacant. And finally, vacant buildings would not be desirable for the City, and may be subject to vandalism and/or other criminal activity.

7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following three alternatives have been determined to represent a reasonable range of alternatives that could potentially attain most of the basic objectives of the project and have the potential to avoid or substantially lessen one or more of the significant effects of the project. These alternatives are analyzed in detail in the following sections.

- Hotel/Office/Commercial Alternative
- Office/Commercial/Residential Alternative
- Reduced Density Alternative

Additionally, this section analyzes the No Project Alternative, as required by CEQA.

An EIR must identify an “environmentally superior” alternative and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality (short term construction related), land use and planning, and noise (short term construction related) were found to be significant and unavoidable. Section 7.8 identifies the Environmentally Superior Alternative.

The proposed project is analyzed in detail in Chapter 5 of this DEIR.

Alternatives Comparison

Table 7-1 identifies information regarding dwelling units, proposed land uses, and population and employment projections, and also provides the jobs-to-housing ratio for the proposed project and each of the alternatives.

Table 7-1
Statistical Summary Comparison

	Proposed Project	No Project Alternative	Hotel/Office/ Commercial Alternative	Office/Commercial/ Residential Alternative	Reduced Density Alternative
Dwelling Units	1,244	—	—	830	561
Commercial/Retail	11,500	—	20,000	7,000	11,500
Office	—	126,675	160,000	100,000	—
Industrial	—	311,452	0	0	0
Hotel (Rooms)	—	—	174	—	—
Park Space	2.05	—	1.52	1.40	2.05
Population [1]	2,724	—	—	1,818	1,229
Employment					
Commercial [2]	26	—	44	16	26
Office [3]	—	135	455	284	—
Hotel [4]	—	—	96	—	—
Industrial	—	3,000			
Total	26	3,135	595	300	26
Jobs-to-Housing Ratio [5]	1.78	1.91	1.85	1.88	1.81

[1] Assumes 2.19 persons per household as determined in 2010 Census for Newport Beach (Census 2012).
[2] Assumes 450 square feet per employee, per SCAG's Employment Density Study Summary Report (2001).
[3] Assumes 352 square feet per employee for low-rise office uses, per SCAG's Employment Density Study Summary Report (2001).
[4] Assumes 1,804 square feet per employee, per SCAG's Employment Density Study Summary Report (2001). Since SCAG's report does not provide a square foot per hotel employee rate for Orange County, the regional rate of 1,804 was used to develop the number of employees for this alternative.
[5] Jobs-to-housing ratio is based on SCAG projections for the City of Newport Beach in 2035, similar to what was analyzed for the proposed project in Section 5.11, *Population and Housing*.

For each of the alternatives analyzed herein, with the exception of the No Project Alternative, the following components/elements would be similar to the proposed project:

- Development would be consistent with the City's General Plan and would require the preparation of a regulatory plan (i.e., Planned Community Development Plan) and related implementation plans (Phasing Plan and Design Guidelines).

- Development would occur in two primary phases and the phase boundaries would be the similar to the boundaries as shown in Figure 3-6, *Site Plan and Phasing Plan*.

- Operation of the TowerJazz facility would continue as an interim use after the development of Phase 1 and would be demolished under Phase 2.

- Phase 1 would commence in 2014 and be completed by 2018. Timing for Phase 2 would be contingent on the existing lease of the TowerJazz building, which is currently set to expire in March 2017, but could be extended to as late as March 2027.

- The Southern California Edison (SCE) substation would remain during the initial operation of Phase 1 to serve the electricity needs of the TowerJazz facility, and would be demolished in Phase 2.
- The overall project acreage (25.05 acres) and acreage by phase (12.29 for Phase 1 and 12.76 for Phase 2) would remain the same.
- The overall land use mix would be trip neutral as required by the City's General Plan (by definition, projects consistent with allowed uses under the General Plan would be trip neutral).
- Parking would include a mix of surface and structure (subterranean and above-ground) parking.
- Vehicular and pedestrian site access would be similar.
- Building heights would be regulated by the Federal Aviation Administration (FAA) regulations and standards outlined in the required regulatory plan.

Table 7-2 provides a comparison of the vehicle trips that would be generated by the proposed project and each of the alternatives.

Table 7-2
Trip Generation Comparison

	Trip Generation Estimates						
		AM Peak Hour			PM Peak Hour		
	Daily	In	Out	Total	In	Out	Total
Proposed Project	9,033	134	511	644	537	292	829
No Project	747	90	12	102	15	88	102
Hotel/Office/Commercial Alternative	3,983	289	76	365	126	278	404
Commercial/Office/Residential Alternative	6,805	223	362	584	362	311	672
Reduced Density Alternative	4,139	64	233	297	236	135	370

7.4 NO PROJECT ALTERNATIVE

Under the No Project Alternative, no development would occur on the project site, the existing buildings and structures onsite (TowerJazz building, Half Dome building, and Southern California Edison substation) would remain and not be demolished, and the TowerJazz facility would continue operating. All other site improvements (e.g., parking areas, landscaping, sidewalks) would also remain in their existing condition. It is assumed for this alternative that the TowerJazz facility would remain onsite and operate indefinitely.

Aesthetics

Phase 1 and Phase 2

The project site would remain in its current condition under this alternative. Existing land uses and views would remain as depicted in Figures 4-1, *Site Photographs*, and 4-2, *Photographs of Surrounding Uses*. As with the proposed project, the No Project Alternative would not obstruct, interrupt, or diminish a valued panoramic view. This alternative would not generate new light or glare sources, and would not cast shadows on surrounding properties. However, the improvements under the proposed project would subjectively be

characterized as improving existing site conditions, particularly through the introduction of new and enhanced landscaping and other site improvements. Overall, aesthetic impacts would be similar to the proposed project, less than significant.

Air Quality

Phase 1

This alternative would retain the existing land uses onsite. The primary source of criteria air pollutants onsite is from vehicle trips to and from the Half Dome building. The proposed project would generate substantially more vehicle trips associated with the residential and commercial land uses compared to the existing office land use. In addition, the proposed residential and commercial buildings would generate higher area source emissions than the existing office building. Phase 1 air quality impacts for this alternative would therefore be less than emissions for the proposed project.

This alternative would eliminate project-related air quality impacts related to placement of sensitive receptors proximate to major sources of toxic air contaminants, including the TowerJazz facility.

Phase 2

The existing TowerJazz facility generates stationary source emissions from industrial processing onsite and mobile sources of emissions related to vehicle trips. While the proposed project generates fewer stationary/area sources of emissions onsite than the TowerJazz facility, the residential land uses under the proposed project would generate substantially more vehicle trips. When taken together, total emissions generated by the proposed project would be higher than emissions generated by the TowerJazz facility. Therefore, this alternative would reduce long-term operational air quality impacts in comparison to the proposed project.

Construction

The No Project alternative would eliminate construction-related air quality impacts that are associated with the proposed project. Since construction-related air quality impacts for the proposed project are significant and unavoidable, the No Project Alternative would eliminate a significant, unavoidable impact.

Overall, this alternative would reduce operational air quality impacts and eliminate the significant construction-related air quality impacts of the proposed project.

Biological Resources

Phase 1 and Phase 2

Impacts to biological resources under this alternative would be reduced. Trees and other vegetation onsite that currently could be used for nesting by migratory birds protected under the Migratory Bird Treaty Act would remain, as no existing vegetation would be removed. However, all biological resource impacts associated with the project as proposed would be mitigated to less than significant. Therefore, although this alternative would reduce impacts, it would not eliminate any significant impacts in comparison to the proposed project

Cultural Resources

Phase 1 and Phase 2

Since this alternative would not involve any site disturbance, it would not have the potential to adversely affect any archaeological or paleontological resources at the project site. As with the proposed project, this alternative would not disturb any historical structures. Although this alternative would reduce impacts to cultural resources in comparison to the proposed project, it would not eliminate a significant impact since potential cultural resource impacts would be mitigated to less than significant for the proposed project.

Geology and Soils

Phase 1 and Phase 2

Grading and excavation of the project site would not occur under this alternative. Moreover, no additional structures or persons would be introduced to the potential seismic-related hazards associated with the project site. Geologic and soils impacts for this alternative, therefore, would be reduced in comparison to the proposed project. However, since no significant geologic and soils-related impacts would occur under the proposed project with implementation of mitigation, this alternative would not eliminate a significant impact in comparison to the proposed project.

Greenhouse Gas Emissions

Phase 1

Existing, onsite land uses would remain under this alternative and TowerJazz operations would continue, including the substantial GHG emissions generated by this facility. TowerJazz would also continue to operate during Phase 1 of the proposed project. Under the No Project Alternative, GHG emissions would also be generated by the Half Dome office use, and vehicle trips generated by both TowerJazz and the office use. Since trip generation associated with the Phase 1 portion of the proposed project (680 units and 11,500 square feet of commercial) generates more vehicle trips than the Half Dome building, GHG emissions for the No Project alternative for Phase 1 would be less than the proposed project. However, since no significant and unavoidable greenhouse gas impacts occur under the proposed project, no impacts would be avoided.

Phase 2

The ongoing operation of TowerJazz under the No Project Alternative would result in greater GHG emissions compared to the proposed project, because the TowerJazz facility is a major stationary source generator of GHG emissions. Closure and removal of the TowerJazz facility would result in a substantial reduction of GHG emissions onsite. The No Project Alternative, therefore, would result in greater GHG emissions for buildout of the proposed project.

Hazards and Hazardous Materials

Phase 1

In comparison to the proposed project, the No Project Alternative would not introduce residential uses within the property boundary and therefore would not potentially expose future residents to facility-related hazards, including the potential for a hazardous chemical release or VOC vapor intrusion into residential parking garages or residential buildings. Similarly, the Half Dome building would not be demolished and people

would not be potentially exposed to hazardous building materials (asbestos and lead paint). As with the proposed project, onsite remediation activities for the Phase 2 portion of the project would continue during the Phase 1 timeline. In comparison to the proposed project, hazards and hazardous materials impacts would be reduced under the No Project Alternative. Although this alternative would eliminate significant hazards impacts associated with the proposed project (prior to mitigation), each of the significant impacts is mitigated to less than significant under the proposed project, and therefore, this alternative would not eliminate any significant, unavoidable impacts.

Phase 2

Since TowerJazz would continue to operate indefinitely under the No Project Alternative, new residences would not be introduced (as with the proposed project) and surrounding land uses would continue to be exposed to potential hazardous conditions associated with the operation, including the potential release of chemicals used and stored onsite. This impact would be eliminated by Phase 2 of the proposed project, under which the facility would be demolished and cease to operate. The No Project Alternative, however, would eliminate the potential release of hazardous materials associated with site grading/soil disturbance and the potential release of hazardous building materials during demolition. The No Project Alternative would also eliminate the proposed project's impact of potential VOC vapor intrusion into Phase 2 residential structures. Phase 2 hazardous impacts would be reduced by the No Project Alternative in comparison to the proposed project. Significant impacts under this alternative would be eliminated in comparison to the proposed project; however, since project impacts would be mitigated to less than significant, no significant, unavoidable impacts would be eliminated.

Overall, impacts from hazards and hazardous materials would be reduced under the No Project Alternative. Significant impacts would be eliminated, but no significant, unavoidable impacts would be eliminated in comparison to the proposed project (since all impacts can be mitigated).

Hydrology and Water Quality

Phase 1 an Phase 2

Under the No Project Alternative, the TowerJazz semiconductor manufacturing operation would remain, including any potential for this use to adversely impact water quality (chemical release, etc.). Existing drainage patterns and water quality conditions would not change. New storm drains and onsite water quality drainage features as proposed by the project would not be constructed. For example, the infiltration basins that would be developed under the parks proposed by the project would not be implemented. Additionally, development pursuant to the proposed project would decrease the amount of impervious surfaces on the site and would reduce stormwater volumes and peak flow rates into drainage systems. These improvements would be considered a beneficial impact of the proposed project.

Potential water quality impacts of the proposed project, including short-term construction-related and long-term operational impacts would be mitigated by best management practices (BNPs) required under the Stormwater Pollution Prevention Plan (SWPPP) and water quality management plan (WQMP). The source control, treatment control, and site design BMPs that would be implemented under the proposed project would improve the quality of stormwater runoff from the site.

Overall, hydrology and water quality impacts would be greater for this alternative in comparison to the proposed project.

Land Use and Planning

Phase 1 and Phase 2

Under the No Project Alternative, the project site would remain in its present condition. As with the proposed project, this alternative would not physically divide an established community through the introduction of either physical or community barriers.

This alternative would not, however, implement the goals and objectives of the City's General Plan and the Airport Area Integrated Conceptual Development Plan (ICDP). The General Plan's policies for the Airport Area and the ICDP call for the orderly evolution of this area from a single-purposed business park to a mixed-use district with cohesive residential villages integrated within the existing fabric of the office, industrial, retail, and airport-related businesses.

Unlike the proposed project, this alternative would not require review by ALUC for consistency with the AELUP prior to Newport Beach City Council action on the alternative. Therefore, this alternative would eliminate the proposed project's significant and unavoidable land use impact related to a potential find of inconsistency with the AELUP by ALUC.

Overall, land use and planning impacts for this alternative would be reduced compared to the proposed project, since the project's significant and unavoidable land use impact would be eliminated.

Noise and Vibration

Noise

Phase 1

In comparison to the proposed project, noise impacts during Phase 1 of this alternative would be less compared to the proposed project because it would not place residential uses in proximity to the TowerJazz facility. No construction would occur under this alternative; therefore, there would be no significant noise impacts at nearby office uses related to construction activities. The No Project Alternative would reduce Phase 1 noise impacts in comparison to the proposed project and would eliminate the significant, unavoidable noise impact of the proposed project.

Phase 2

Under the No Project alternative, the TowerJazz operation would continue indefinitely and the 24-hour, seven-day/week noise generation would continue. New development surrounding the project site could be impacted by the noise generation. In comparison, the land uses under the proposed project would not generate substantial noise. Although traffic generation would be greater under the proposed project, the increase in traffic noise in comparison to the No Project Alternative (existing conditions) would be negligible. The No Project Alternative, however, would eliminate the significant construction noise impact associated with the proposed project.

Overall, the No Project Alternative would reduce noise impacts in comparison to the proposed project, primarily because it would eliminate a significant, unavoidable impact (construction noise), even though long-term noise generation from the site would be greater than with the proposed project.

Vibration

Phase 1

This alternative would retain the existing land uses onsite. Consequently, there would be no vibration due to construction activities that would have the potential to cause disruptions to the TowerJazz Semiconductor facility and annoyance at uses adjacent to the project site. Vibration impacts during Phase 1 of this alternative would be less compared to the proposed project. This alternative would eliminate the significant construction-related vibration impacts due to the project. Under the proposed project, however, this impact is mitigated to less than significant.

Phase 2

This alternative would retain the existing land uses onsite. Consequently, there would be no vibration due to construction activities that would have the potential to cause annoyance at uses adjacent to the project site. Impacts during Phase 2 of this alternative would be less compared to the proposed project. This alternative would eliminate the significant construction-related vibration impacts due to the project. This impact, however, is mitigated to less than significant for the proposed project.

Overall, vibration impacts would be reduced for the No Project Alternative in comparison to the proposed project.

Population and Housing

Phase 1 and Phase 2

In comparison to the proposed project, this alternative would not introduce new housing and residents into the City. It would not provide 185 affordable housing units that, under the proposed project, would assist the City in achieving its Regional Housing Need Assessment (RHNA) goals. The proposed project would introduce 2,724 new residents and 26 new jobs to the City, resulting in an increase in population but a net decrease in employment considering existing onsite jobs. As shown in Table 7-1, *Statistical Summary Comparison of Project Alternatives*, the forecast jobs-to-housing balance in 2035 for the No Project Alternative is 1.91 in comparison to the proposed project's ratio of 1.78. In comparison to the No Project Alternative, the proposed project results in a positive impact to the jobs: housing balance (SCAG's ideal jobs/housing ratio is 1.36).

Overall, population and housing impacts for the No Project Alternative would be greater than the proposed project. Impacts for this alternative as well as the proposed project, however, are less than significant.

Public Services

Phase 1 and Phase 2

Under the No Project Alternative, there would be no increase in demand for fire and emergency protection services, police protection, or school and library services. Although potential impacts would be less than for the proposed project, no significant impacts on public services would occur with the proposed project; therefore, this alternative would not eliminate a significant impact.

Recreation

Phase 1 and Phase 2

Under this alternative, there would be no increase in demand for recreational facilities or services, since no residential uses would be developed. The onsite park, also to be available to the public, that would be developed under the proposed project, would not be developed under the No Project Alternative. Similarly, Quimby Act fees for park dedication or improvements would not be paid under the No Project Alternative. Although potential impacts would be less than for the proposed project, no significant impacts on recreation would occur with the proposed project; therefore, this alternative would not eliminate a significant impact.

Transportation and Traffic

Phase 1 and Phase 2

This alternative would retain the existing land uses onsite. As shown in Table 7-2, *Trip Generation Comparison,* the No Project alternative would generate substantially fewer trips than the proposed project (747 daily trips in comparison to 9,033 for the proposed project). However, since the proposed project would not substantially affect traffic at study area intersections and freeway mainlines and ramps (see Section 5.14, *Transportation and Traffic)*, traffic impacts to study area roadways under this alternative would be similar to the project.

Because this alternative would retain the existing industrial uses rather than develop the residential and commercial uses as proposed, this alternative would be less effective than the proposed project in promoting alternative transportation modes such as walking, biking, and public transit. Moreover, the No Project alternative would not provide improvements to encourage pedestrian and bike use in the project area, as included in the proposed project.

Overall, transportation and traffic impacts would be similar to the proposed project, and as with the proposed project, would be less than significant.

Utilities and Service Systems

Phase 1 and Phase 2

Table 7-3, *Utility/Service Systems Needs Comparison – No Project Alternative,* summarizes utility and service system demands for the proposed project in comparison to the No Project Alternative at buildout.

Table 7-3
Utility/Service System Needs Comparison – No Project Alternative

Utility/Service System	Proposed Project	No Project Alternative	Difference
Wastewater	140,065 gpd	900,000 gpd	–759,935 gpd
Water	214,191 gpd	1.4E+06 gpd	–1.2E+06 gpd
Solid Waste	8,038 lbs/day	3,447 lbs/day	+4,585 lbs/day
Electricity	4.4E+06 kWh/year	31E+06 kWh/year	–27E+06 kWh/year
Natural Gas	16,486 MMBTU/year	240,000 MMBTU/year	–239,984 MMBTU/year

Notes: gpd = gallons per day; lbs = pounds per day; kWh = kilowatt hour; MMBTU = British Thermal Unit

As shown in this table, electricity, natural gas and water use for the existing development (No Project Alternative) are substantially greater than for the project as proposed. The No Project Alternative also generates more wastewater than projected for the Uptown Newport development. These demands reflect the intense service demands of the TowerJazz manufacturing operation. The No Project Alternative, however, would reduce solid waste generation in comparison to the proposed project. Overall, utility and service system impacts would be much greater under the No Project Alternative than under the proposed project.

7.4.2 Ability to Reduce Environmental Impacts

In comparison to the proposed project, the No Project Alternative would reduce impacts to air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, land use and planning, noise, and vibration, public services, and recreation. This alternative would eliminate the significant unavoidable construction-related impacts for air quality and noise, as well as the potentially significant land use and planning impact related to a consistency finding for the AELUP required for the Uptown Newport project. Aesthetic and transportation and traffic impacts under this alternative would be similar to the proposed project. GHG impacts would be substantially greater for the No Project Alternative, and population/housing and utilities/services impacts would also be greater than the proposed project. Overall, the No Project Alternative would have less environmental impacts than the proposed project and would eliminate all its significant, unavoidable impacts.

7.4.3 Ability to Achieve Project Objectives

The No Project Alternative would not achieve any of the objectives of the proposed project, as it would not implement the goals and objectives that the City's General Plan and ICDP have established for the project site. The General Plan's policies for the Airport Area and the ICDP call for the orderly evolution of this area from a single-purposed business park to a mixed-use district with cohesive residential villages integrated within the existing fabric of the office, industrial, retail, and airport-related businesses. This alternative would not provide housing in close proximity to jobs and supporting services, with pedestrian-oriented amenities that facilitate walking and enhance livability.

7.5 HOTEL/OFFICE/COMMERCIAL ALTERNATIVE

This alternative was selected for its potential to eliminate impacts associated with the adjacency of residential uses to the operating TowerJazz manufacturing facility during Phase 1. Land use incompatibility concerns associated with the proximity of residential uses to TowerJazz include noise and hazards. Other impacts, that could potentially be reduced by this alternative, although not determined significant for the proposed project, were anticipated to be aesthetics, air quality, and health risk (TowerJazz air emissions).

Under this alternative Phase 1 would include up to 174 hotel rooms (including conference, banquet facility, etc.) and Phase 2 would provide up to 160,000 square feet of office uses and 20,000 square feet of commercial uses, as shown in Table 7-1, *Statistical Summary Comparison*. A conceptual layout for this alternative is shown in Figure 7-1, *Hotel/Office/Commercial Alternative Site Plan and Phasing Plan*. This alternative could potentially include subterranean parking for one or more of the uses.

Phase 1

The Half Dome building and other associated site improvements, including parking areas, landscaped and common areas, and other hardscape improvements, would be demolished. Upon demolition, this phase would include the development of up to 174 hotel rooms (including conference, banquet facility, etc.) and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and

common areas. The hotel rooms could be accommodated within low- and midrise buildings with a maximum building height of 75 feet.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area, and other remaining site improvements would be demolished to develop 160,000 square feet of office uses and 20,000 square feet of commercial uses and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The office and commercial uses could be accommodated within low- and midrise buildings with a maximum building height of 75 feet.

Trip Generation

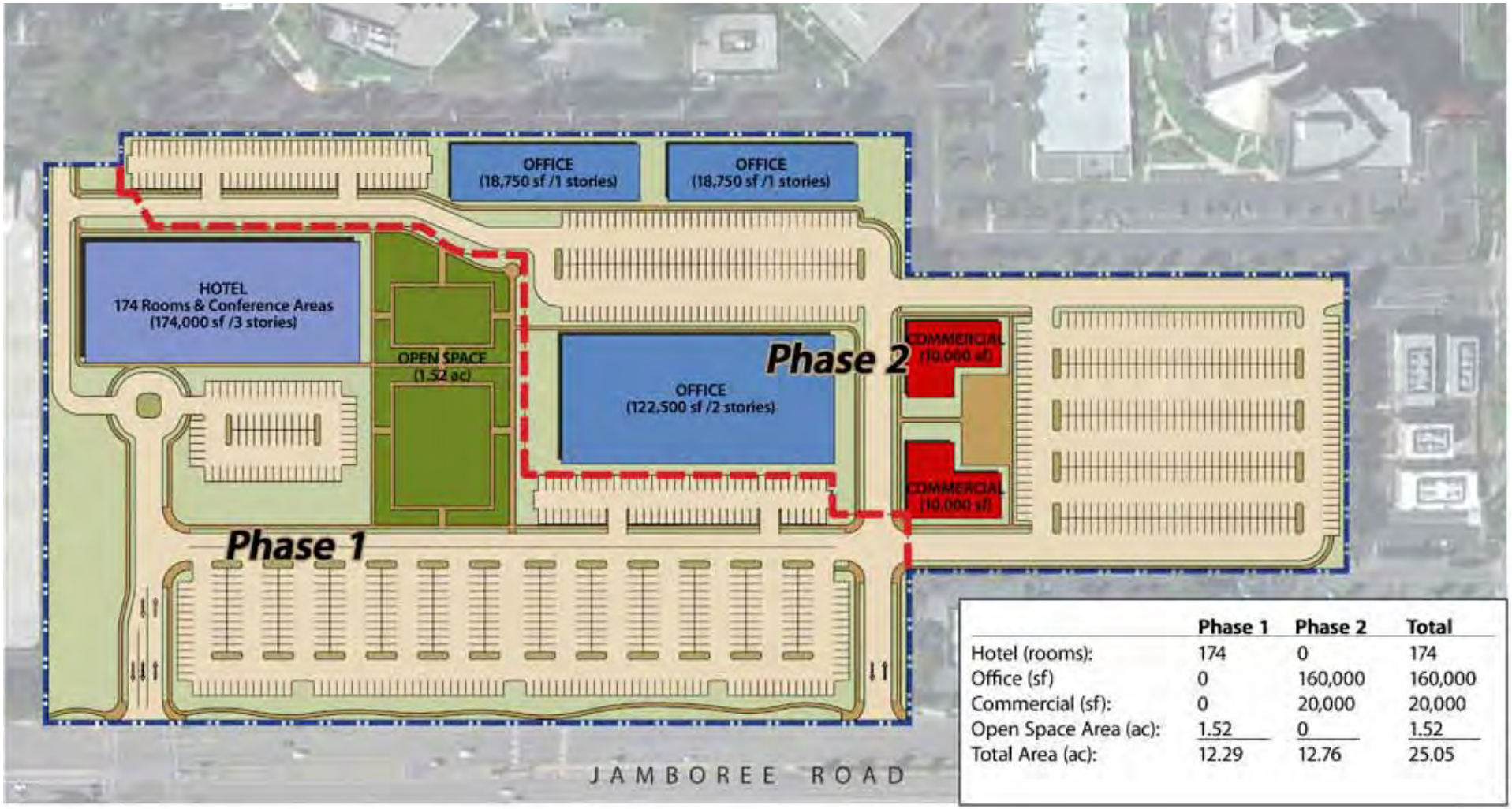
Table 7-4 provides the number of vehicle trips that would be generated by this alternative. The trip generations were based on the Institute of Traffic Engineers' (ITE) *Trip Generation* (8th edition) trip rates used in the proposed project's traffic study. As shown, this alternative would generate 3,983 average daily trips (ADT), 365 AM peak hour trips, and 404 PM peak hour trips.

Table 7-4
Hotel/Office/Commercial Alternative Trip Generation

Land Use	ITE Code	Unit	Trip Generation Rates [1]						
			Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Hotel	310	Rooms	8.17	0.34	0.22	0.56	0.31	0.28	0.59
General Office Building	710	KSF	11.01	1.36	0.19	1.55	0.25	1.24	1.49
Shopping Center	820	KSF	42.94	0.61	0.39	1.00	1.83	1.90	3.73
Land Use	**Quantity**	**Unit**	**Trip Generation Estimates**						
			Daily	**AM Peak Hour**			**PM Peak Hour**		
				In	**Out**	**Total**	**In**	**Out**	**Total**
Hotel	174	Rooms	1,422	59	38	97	54	48	102
General Office Building	160	KSF	1,762	218	30	248	41	198	239
Shopping Center	20	KSF	859	12	8	20	37	38	75
Subtotal – Before Internal Capture/Pass-by			**4,042**	**289**	**76**	**365**	**132**	**284**	**416**
Internal Trip Capture [2]			**60**	—	—	—	**2**	**2**	**4**
Pass-by Reduction for Retail (10%) [3]			—	—	—	—	**4**	**4**	**8**
Total			**3,983**	**289**	**76**	**365**	**126**	**278**	**404**
Proposed Project Total Trips			**9.033**	**134**	**511**	**644**	**537**	**292**	**829**
DIFFERENCE			**-5050**	**155**	**-435**	**-279**	**-411**	**-14**	**-425**

Source: Kimley-Horn and Associates, 2012.
Notes: KSF = thousand square feet
[1] Institute of Transportation Engineers,: *Trip Generation*, 8th edition.
[2] ITE, *Trip Generation*.
[3] Based on net retail trips, after internal capture reduction.

Hotel/Office/Commercial Alternative



	Phase 1	Phase 2	Total
Hotel (rooms):	174	0	174
Office (sf)	0	160,000	160,000
Commercial (sf):	0	20,000	20,000
Open Space Area (ac):	1.52	0	1.52
Total Area (ac):	12.29	12.76	25.05

Site Boundary Phasing Boundary

0 200
Scale (Feet)

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7.5.2 Environmental Assessment

Aesthetics

Phase 1 and Phase 2

The visual character of this alternative would be substantially different than the proposed project. The overall footprint for buildings would be reduced, as well as the maximum height of buildings. Under the proposed project, residential building towers could be as high as 150 feet. For the Hotel/Office/Commercial Alternative, maximum building height would be assumed to be 75 feet. It is anticipated that a hotel use would be 3 to 4 stories, office uses 1 to 2 stories, and the commercial/retail use 1 story. This alternative would not obstruct scenic vistas and may reduce any view obstruction in comparison to the proposed project.

As with the proposed project, the architectural, site, landscape, lighting, and streetscape design for the hotel uses would be driven by the required regulatory plan. The standards and guidelines outlined in the regulatory plan would ensure the orderly development of the hotel uses and that this alternative is developed in a manner that is not visually detrimental to the surrounding commercial and office uses.

As with the proposed project, the TowerJazz building would continue to operate during construction and initial operation of Phase 1 of this alternative. The required regulatory plan would provide the necessary landscape standards and guidelines (e.g., dense evergreen trees, screen walls) to ensure that the industrial building would be adequately screened from the proposed hotel uses.

Since building heights would be reduced in comparison to the proposed project, this alternative would reduce potential shade/shadow impacts, although light and glare impacts would likely be similar to the proposed project and include typical lighting for hotel uses, parking areas, and walkways. This alternative would include signage and potentially lighting for signage, not required for the proposed project. Such improvements would be in accordance with mandated design standards and codes, and impacts would be less than significant.

Overall, scenic vista, visual character, shade/shadow, and light and glare impacts would be similar to the proposed project, less than significant.

Air Quality

Phase 1

Regional Air Quality

Under this alternative, onsite operations would consist of a hotel with 174 rooms and the continued operation of the TowerJazz facility. This alternative is estimated to reduce Phase 1 vehicle trips by 73 percent from the proposed project (Phase 1 only). Because transportation emissions comprise the majority of a development project's criteria air pollutant emissions inventory, it is assumed that the incremental increase in criteria air pollutant emissions generated by this alternative would be substantially less than the proposed project. This alternative would substantially reduce the magnitude of operational phase air emissions during Phase 1. Operational phase air emissions by the proposed project are less than significant. Therefore, the incremental increase in emissions onsite would remain less than the SCAQMD thresholds. This alternative would reduce the proposed project's operational impacts.

Air Quality Compatibility

This alternative would also reduce project-related air quality impacts related to placement of sensitive receptors proximate to major sources of toxic air contaminants, including the TowerJazz facility. While no significant impacts were identified for the proposed project, hotels are not considered sensitive land uses for air quality compatibility. Consequently, air quality impacts with this alternative would be less than significant and this alternative would reduce air quality compatibility impacts of the project.

Phase 2

Regional Air Quality

Under this alternative, onsite operations would consist of a hotel with 174 rooms, 20,000 square feet of commercial retail space, and 160,000 square feet of office space. TowerJazz would cease to operate prior to development of Phase 2, resulting in a substantial reduction in stationary source emissions onsite, the same as the proposed project. This alternative is estimated to reduce vehicle trips during Phase 2 by 56 percent from the proposed project (Phase 1 plus Phase 2). Because transportation emissions comprise the majority of a development project's criteria air pollutant emissions inventory, it is assumed that the incremental increase in criteria air pollutant emissions generated by this alternative would be substantially less than the proposed project. This alternative would substantially reduce the magnitude of operational phase air emissions. Operational phase air emissions by the proposed project are less than significant. Therefore, the incremental increase in emissions onsite would remain less than the SCAQMD thresholds. This alternative would reduce the proposed project's operational impacts.

Construction – Phase 1 and Phase 2

Regional and Localized Air Quality

Construction emissions would be similar in this alternative to those of the proposed project. Both scenarios would involve development on a portion of the site and may include subterranean parking, resulting in similar equipment use during the grading phase. Construction emissions impacts of this alternative would be similar to the proposed project and would require similar mitigation. As with the proposed project, regional construction-related air quality impacts would be significant and unavoidable.

Biological Resources

Phase 1 and Phase 2

Although this alternative would replace residential uses for hotel, office and commercial uses, its impacts to biological resources would be similar to those of the proposed project since they would both develop the entire site. The same mitigation would be required, and impacts would be less than significant with mitigation.

Cultural Resources

Phase 1 and Phase 2

Cultural resources impacts would be similar to the proposed project since this alternative would redevelop the entire site. Recommended mitigation under this alternative would be the same as the proposed project. Overall, as with the proposed project, cultural resource impacts would be less than significant.

Geology and Soils

Phase 1 and Phase 2

The Hotel/Office/Commercial Alternative would involve disturbing the entire project site and grading the same acreage under each phase, similar to the proposed project. During project operation, this alternative would introduce hotel and office patrons, increase the number of commercial patrons, and eliminate the number of permanent residents who would be potentially exposed to seismic-related hazards associated with the project site (e.g., ground shaking, liquefaction). These seismic hazards, however, are similar to most of southern California. Impacts from expansive soils would also be similar to the proposed project.

Overall, geology and soils impacts would be similar to the proposed project and, as with the proposed project, recommended mitigation would mitigate impacts to less than significant.

Greenhouse Gas Emissions

Phase 1

Under this alternative, onsite operations would consist of a hotel with 174 rooms and the continued operation of the TowerJazz facility. This alternative is estimated to reduce Phase 1 vehicle trips by 73 percent from the proposed project (Phase 1 only). Because transportation emissions comprise the majority of a development project's greenhouse gas (GHG) emissions inventory, it is assumed that the incremental increase in GHG emissions generated by this alternative would be substantially less than the proposed project. While this alternative would be less dense than the proposed project and therefore less efficient on a per capita basis, this alternative would substantially reduce the magnitude of operational phase air emissions during Phase 1. GHG emissions generated by Phase 1 of this alternative would likely not exceed the draft SCAQMD screening threshold of 3,000 MTons because of the substantial decrease in vehicle trips. GHG emissions impacts of the proposed project are less than significant. Therefore, GHG emissions impacts during Phase 1 of this alternative would also be less than significant.

Phase 2

Under this alternative, onsite operations would consist of a hotel with 174 rooms, 20,000 square feet of commercial retail space, and 160,000 square feet of office space. TowerJazz would cease to operate prior to development of Phase 2, resulting in a substantial reduction in stationary source GHG emissions onsite, the same as for the proposed project. This alternative is estimated to reduce vehicle trips for Phase 2 (project buildout, Phase 1 plus Phase 2) by 56 percent in comparison to the proposed project. Because transportation emissions comprise the majority of GHG emissions for development projects, it is expected that GHG emissions generated by this alternative would be substantially less than emissions generated by the proposed project. As with the proposed project, this alternative would result in a beneficial GHG emissions impact in comparison to existing conditions. GHG emissions impacts of the proposed project are less than significant and would be less than significant with this alternative.

Hazards and Hazardous Materials

Phase 1

Under this alternative, the TowerJazz facility would continue operation during an interim period after the Phase 1 improvements were completed and occupied. Hotel guests and open space users would be subject to the hazards associated with the potential release of hazardous chemicals from the TowerJazz portion of

the site as well as potential vapor intrusion impacts. In comparison to future residents as proposed under Phase 1 of the proposed project, however, the duration of hotel guest exposure to potential site hazards would be nominal. Moreover, this alternative would comply with the City's California Fire Code (CFC) amendment prohibiting residential uses adjacent to storage of extremely hazardous chemicals in excess of defined quantities. Potential hazards would be reduced under this alternative for Phase 1, and in comparison to the proposed project, this alternative would comply with CFC Section 2704.1.1 (Amendment). With mitigation, this impact is less than significant for the proposed project, and therefore this alternative would not eliminate a significant, unavoidable impact.

Phase 2

Under this alternative, Phase 1 hotel guests would be subject to potential exposure of hazardous materials, including building materials (asbestos and lead paint), when the Phase 2 portion of the site is developed. Since guests would be exposed to Phase 2 impacts for a shorter duration than residents, this impact would be reduced in comparison to the proposed project. As with the proposed project, Phase 2 development under this alternative could not occur until site remediation was completed and cleared by the RWQCB for development. Office and retail uses would occupy the Phase 2 portion of this alternative. Although hazards would be mitigated to less than significant for the proposed project, since this alternative would not introduce any residents in Phase 2, impacts would be less.

Overall, hazards and hazardous materials impacts for this alternative project would be reduced in comparison to the proposed project, and this alternative would eliminate one potential significant impact. Since that impact (compliance with CFC Section 2401.1.1 [Amendment]) would be mitigated to less than significant for the proposed project, this alternative would not eliminate any significant, unavoidable impacts.

Hydrology and Water Quality

Phase 1 and Phase 2

As with the proposed project, the majority of the site would be developed with impervious surfaces under this alternative. As shown in the conceptual plan for this alternative (see Figure 7-1, *Hotel/Office/Commercial Alternative Site Plan and Phasing Plan)*, including expansive surface parking, this alternative may increase impervious surfaces in comparison to the proposed project, and therefore increase surface runoff. Subterranean parking, however, could be provided and additional hotel amenities, including open space, could also be provided. As with the proposed project, storm drains could accommodate surface runoff and water quality treatments would meet regulatory standards, assuring that impacts would be mitigated to less than significant.

Overall, hydrology and water quality impacts would be similar to the proposed project, and less than significant.

Land Use and Planning

Phase 1 and Phase 2

As with the proposed project, development of this alternative would not physically divide an established community through the introduction of either physical or community barriers. The land uses proposed under this alternative would be compatible with and complementary to the adjacent and surrounding office and commercial uses. Additionally, as with the proposed project, this alternative would not introduce any roadways or infrastructure that would bisect or transect the adjacent business park uses.

Although the office and hotel uses proposed under this alternative are permitted under the General Plan land use designation of Mixed-Use Horizontal-2 (MU-H2), this alternative would not be as effective as the proposed project in achieving some of the specific goals and objectives of the City's General Plan. Moreover, it would not be consistent with the ICDP approved for the combined 25-acre Uptown Newport project site and 12.7-acre adjacent Koll project site. Additionally, this alternative would require an amendment to the PC-15 to change the current zoning designation from Industrial Site 1 to Professional and Business Offices or adopt a new Planned Community Development Plan to allow hotel and professional business office uses.

The General Plan's policies for the Airport Area and the ICDP call for the orderly evolution of this area from a single-purpose business park to a mixed-use district with cohesive residential villages integrated within the existing fabric of the office, industrial, retail, and airport-related businesses. Therefore, this alternative would not implement City's General Plan goals and policies for this portion of the Airport Area.

This alternative would be consistent with other applicable regional and local plans, including SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

As with the proposed project, this alternative would require review by the ALUC of Orange County for consistency with the AELUP prior to Newport Beach City Council action on the alternative. The review would be required due to the zoning designation change and zoning code adoption required under this alternative. The commercial uses under this alternative, including the hotel use, would not be subject to the AELUP noise level restrictions that apply to the residential units proposed in the Uptown Newport project. Also, since the building heights of this alternative would not exceed 75 feet (as opposed to 150 feet under the project), it is assumed that this alternative could be designed to be consistent with any height restrictions pursuant to the AELUP. It is expected that this alternative would be consistent with the AELUP, but as with the proposed project, it would still need approval by the ALUC. Impacts with respect to AELUP consistency would be slightly less than the proposed project, but still potentially significant until reviewed and approved by ALUC. This alternative, therefore, would not eliminate the potentially significant impact.

Overall, land use and planning impacts for this project alternative would be greater compared to the proposed project.

Noise

Phase 1

Noise and Land Use Compatibility

Relative to the proposed project, this alternative would eliminate the land-use compatibility issues related to the placement of residential uses proximate to the TowerJazz facility. Under the proposed project, the operational noise impacts from TowerJazz could disturb residents for 6 to 12 years (depending on whether the lease option is exercised). Hotel guests under this alternative would be exposed to the same high noise levels, but for much shorter durations compared to permanent residents under the proposed project. The hotel uses would be subject to a slightly less stringent exterior noise maximum in comparison to the proposed project's residential uses (70 dBA instead of 65 dBA). This use, however, would have to achieve the 45 dBA interior noise standard. As with the proposed project, standard windows and doors would not provide the required exterior-to-interior noise reduction to meet the interior noise level of 45 dBA CNEL at the hotel rooms.

Under this alternative, impacts related to noise and land use compatibility would be reduced compared to the proposed project; however, impacts would be similar to the proposed project, less than significant with mitigation.

Construction Noise

This alternative would involve disturbance of the same area as Phase 1 of the proposed project. As with the proposed project, the operation of construction equipment would have the potential to cause annoyance and interfere with activities at the adjacent office buildings and the TowerJazz facility facing the construction area. Noise impacts to nearby office and commercial uses during Phase 1 construction would be similar to the proposed project, significant and unavoidable.

Construction Vibration

This alternative would involve disturbance of the same area and would require the use of heavy construction equipment similar to Phase 1 of the proposed project. As with the proposed project, the TowerJazz building would continue to operate during construction and initial operation of Phase 1 of this alternative. Construction activity would have the potential to cause annoyance and interfere with activities at the office buildings and the TowerJazz facility facing the construction area. Under this alternative, vibration impacts during project construction would be similar to the proposed project, less than significant after mitigation.

Phase 2

Noise and Land Use Compatibility

Phase 2 would include the development of office and commercial uses, which are not considered noise sensitive. Under this alternative, impacts related to noise and land use compatibility would be less than the proposed project; however, impacts would be similar to the proposed project, less than significant.

Construction Noise

This alternative would involve disturbance of the same area as Phase 2 of the proposed project. As with the proposed project, the operation of construction equipment would have the potential to cause annoyance and interfere with activities at the office buildings facing the construction area. In addition, construction of Phase 2 would result in high noise levels at the hotel uses constructed in Phase 1 and existing office buildings adjacent to the project site. Under this alternative, construction noise impacts related to the project would be similar to the proposed project, significant and unavoidable.

Construction Vibration

This alternative would involve disturbance of the same area and would require the use of heavy construction equipment similar to Phase 2 of the proposed project, and would have the potential to cause sporadic annoyance at the hotel uses constructed in Phase 1 and on adjacent office and commercial uses. Under this alternative, vibration impacts during project construction would be similar to the proposed project, less than significant after mitigation.

Overall, temporary noise and vibration impacts during construction of Phase 1 and Phase 2 of this alternative would be similar to the proposed project. Long-term operational impacts would be reduced in comparison to the proposed project; however, this alternative would not eliminate the noise impacts identified for the proposed project. Noise impacts during project construction would remain significant and unavoidable.

Population and Housing

Phase 1 and Phase 2

Due to the elimination of residential uses under this alternative, there would be no direct increase in population or housing in the City (see Table 7-1, Statistical Summary Comparison). The indirect population

growth and need for housing elsewhere in the City and surrounding communities outside the City limits, however, would be slightly greater than for the proposed project due to the increase in hotel, office, and commercial uses. This alternative would not provide 185 affordable housing units that, under the proposed project, would assist the City in achieving its RHNA goals.

As shown in Table 7-1, this alternative would generate approximately 595 employees. The elimination of the residential uses and the increase in employees would increase the City's jobs/housing ratio, which is jobs rich. Overall the population and housing impact of this alternative would be greater than the proposed project, but as with the proposed project, would be less than significant without mitigation.

Public Services

Phase 1and Phase 2

This alternative would be expected reduce the demand on public services in comparison to the proposed project. The elimination of residential units would result in the reduction on library and school services and facilities. Since high density residential uses typically generate a higher need for police and fire services, the hotel/office/commercial land use mix would also likely reduce the demand for these services relative to the proposed project. Overall, public service impacts would be reduced in comparison to the proposed project, and like the proposed project, these impacts would be less than significant with mitigation.

Recreation

Phase 1 and Phase 2

The elimination of 1,244 residential uses in comparison to the proposed project would substantially reduce the demand for recreational facilities. Hotel guests may use local recreational facilities, but onsite recreational amenities would also be expected to be provided. As shown on the conceptual plan for this alternative (see Figure 7-1, *Hotel/Office/Commercial Alternative Site Plan and Phasing Plan*), open space, potentially for public use, could also be integrated into this alternative. Although potential impacts would be less than for the proposed project, no significant recreational impacts would occur with the proposed project upon mitigation, and therefore this alternative would not eliminate a significant impact.

Transportation and Traffic

Phase 1 and Phase 2

As shown on Table 7-4, *Hotel/Office/Commercial Alternative Trip Generation*, this alternative is projected to generate 3,983 daily trips, 365 during the AM peak hour and 404 during the PM peak hour. Compared to the proposed project, this alternative would generate 5,050 fewer daily trips, and 425 fewer trips during the PM peak hour. This alternative would generate substantially less inbound (to the site) and outbound (from the site) trips than the proposed project during the PM peak hour, totaling 425 trips. The project would also generate a total of 279 fewer trips during the AM peak hour. However, this alternative would generate 155 more inbound trips during the AM peak hour, which would add traffic to the predominant traffic flow on Jamboree Road during the AM peak hour. Because this alternative would add traffic to the predominant traffic flow along nearby roadways, this alternative would have the potential to more adversely impact some intersections in comparison to the proposed project.

The proposed project would develop residential uses in close proximity to employment and commercial centers that could encourage residents of the proposed project to walk or bike to work or shop rather than

drive. This alternative would be less effective than the proposed project in promoting alternative transportation modes such as walking, biking, and public transit due to the development of hotel rooms and office uses on the project site—rather than the residential uses planned under the proposed project.

In summary, although total daily trips would be reduced in comparison to the proposed project, the overall transportation and traffic character of this alternative would be different and not provide some of the benefits of the proposed project. Overall, transportation and traffic impacts would be considered similar. As with the proposed project, it is anticipated that impacts would be less than significant.

Utilities and Service Systems

Phase 1 and Phase 2

Compared to the proposed project, the Office/Commercial/Residential Alternative would introduce office uses, increase commercial uses, and reduce the number of residential units. Based on the generation rates that would be applicable to each of the utility and service system demands (wastewater, water, solid waste, electricity, and natural gas) for each of the land uses that would be developed under the proposed project and this alternative, the overall demand for utility and service systems would be reduced under this alternative compared to the proposed project. However, this alternative would not eliminate a significant impact of the proposed project.

7.5.3 Ability to Reduce Environmental Impacts

In comparison to the proposed project, the Hotel/Office/Commercial Alternative would reduce impacts to air quality, GHG, hazards, noise, public services, recreation, and utilities and services. It would comply with CFC Section 2704.1.1 (Amendment) since it would not locate residents adjacent to extremely dangerous chemicals, and thus would eliminate a significant impact associated with the project as proposed. This impact, however, would be mitigated to less than significant, so it would not eliminate a significant, unavoidable impact. Land use and planning, and population and housing impacts for this alternative would be greater than the proposed project, and aesthetics, biological resource, cultural resources, geology and soils impacts, and hydrology/water quality impacts would be similar.

7.5.4 Ability to Achieve Project Objectives

With the exception of the provision of beneficial site improvements, including implementing a WQMP, the Hotel/Office/Commercial Alternative would not achieve any of the key objectives of the proposed project. It would not implement the goals and objectives that the City's General Plan and ICDP have established for the project site. The General Plan's policies for the Airport Area and the ICDP call for the orderly evolution of this area from a single-purpose business park to a mixed-use district with cohesive residential villages integrated within the existing fabric of the office, industrial, retail, and airport-related businesses. This alternative would not provide housing in close proximity to jobs and supporting services, with pedestrian-oriented amenities that facilitate walking and enhance livability. It is uncertain whether this alternative would yield a reasonable return on investment. Although statistics are not readily available for the demand for hotel units, information does indicate a depressed market demand for office use in the Orange County airport area as of the 4th quarter of 2011 (CBRE 2011). As of that quarter, the office vacancy rate was 24.9 percent, and it was estimated that it would take 8.5 years to absorb all of the available and under-construction Class A office space based on an annual absorption rate (2011) of 769,204 square feet for the Greater Airport area. Office use by Phase 2 of the project could be feasible if the economy picks up. If the office vacancy rate drops to approximately 7 percent, the existing office availability (including under construction) could be absorbed in

approximately 4.2 years, and new office uses could be marketable. With a 5.7 percent vacancy rate, the retail market is better than the office market, but still depressed.

7.6 OFFICE/COMMERCIAL/RESIDENTIAL ALTERNATIVE

This alternative was selected for its potential to eliminate impacts associated with the adjacency of residential uses to the operating TowerJazz manufacturing facility during Phase 1 while still providing residential uses in Phase 2. Land use incompatibility concerns associated with the proximity of residential uses to TowerJazz include noise and hazards. Other impacts that could potentially be reduced by this alternative, although not determined significant for the proposed project, were anticipated to be aesthetics, air quality, and health risk (TowerJazz air emissions).

This alternative would include the development of office, commercial, and residential uses. More specifically, Phase 1 would include up to 100,000 square feet of office uses and 7,000 square feet of commercial uses, and Phase 2 would include up to 830 dwelling units, as shown in Table 7-1, *Statistical Summary Comparison*. The conceptual layout and location of the uses that would be developed under this alternative are shown in Figure 7-2, *Office/Commercial/Residential Alternative Site Plan and Phasing Plan*. This alternative could potentially include subterranean parking for one or more of the uses.

Phase 1

Phase 1 would include demolition of the Half Dome building and other associated site improvements, including parking areas, landscaped and common areas, and other hardscape improvements. Upon demolition, this phase would include the development of up to 100,000 square feet of office uses and 7,000 square feet of commercial uses and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The office and commercial uses could be accommodated within low- and midrise buildings with a maximum building height of 75 feet. The commercial land use has been situated with frontage on Jamboree Road and might encompass restaurant uses as does the proposed project.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area, and other remaining site improvements would be demolished to develop up to 830 dwelling units and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. As with the proposed project, a variety of housing developments could be anticipated under this alternative. Residential product types could be for sale and/or rent with a mix of apartments, townhouses, and condominiums. Residential buildings may include low-rise rowhouses and 4- and 5-story apartments or condominiums featuring a range of floor plan sizes. Mid- to high-rise buildings are also envisioned. Midrise buildings would not exceed 75 feet in height, and high-rise buildings would not exceed 150 feet in height.

Phase 2 would also include a 1.02-acre neighborhood park similar to proposed project. The park would be privately maintained and publicly accessible. In addition to the neighborhood park, public open space areas, private open space area, and ancillary amenities would be provided to serve residents and visitors, and passed and walkway connections would be provided onsite and to surrounding areas.

Trip Generation

Table 7-5 provides the number of vehicle trips that would be generated under this alternative. The trip generations were based on the ITE *Trip Generation* (8th edition) rates used in the proposed project's traffic

study. As shown in Table 7-5, this alternative would generate 6,805 ADT, 584 AM peak hour trips, and 672 PM peak hour trips.

Table 7-5
Office/Commercial/Residential Alternative Trip Generation

Land Use	ITE Code	Unit	Trip Generation Rates [1]						
				AM Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total
Specialty Retail	814	KSF	44.32	0.61	0.39	1.00	1.38	1.33	2.71
General Office Building	710	KSF	11.01	1.36	0.19	1.55	0.25	1.24	1.49
Apartment [2]	220	DU	6.65	0.10	0.41	0.51	0.40	0.22	0.62
Land Use	**Quantity**	**Unit**	**Trip Generation Estimates**						
				AM Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total
Specialty Retail	7	KSF	310	4	3	7	10	9	19
General Office Building	100	KSF	1,101	136	19	155	25	124	149
Apartment [2]	830	DU	5,520	83	340	423	332	183	515
Sub-total – Before Internal Capture/Pass-by			**6,931**	**223**	**362**	**585**	**367**	**316**	**683**
Internal Trip Capture [3]			**106**	**0**	**0**	**0**	**5**	**5**	**10**
Pass-By Reduction for Retail (10%) [4]			**20**	**0**	**0**	**1**	**0**	**0**	**1**
Total			**6,805**	**223**	**362**	**584**	**362**	**311**	**672**
Proposed Project Total Trips			**9,033**	**134**	**511**	**644**	**537**	**292**	**829**
DIFFERENCE			**-2,228**	**89**	**-149**	**-60**	**-175**	**19**	**-157**

Source: Kimley-Horn and Associates, 2012.
Notes: KSF = Thousand Square Feet; DU = Dwelling Unit
[1] Institute of Transportation Engineers, *Trip Generation*, 8th edition.
[2] The alternative may consist of a combination of multi-family residential product types, including condominium, apartment, townhome, etc. For a most conservative trip generation analysis, the ITE trip generation rates for "Apartment" are used here.
[3] ITE, *Trip Generation*.
[4] Based on net retail trips, after internal capture reduction.

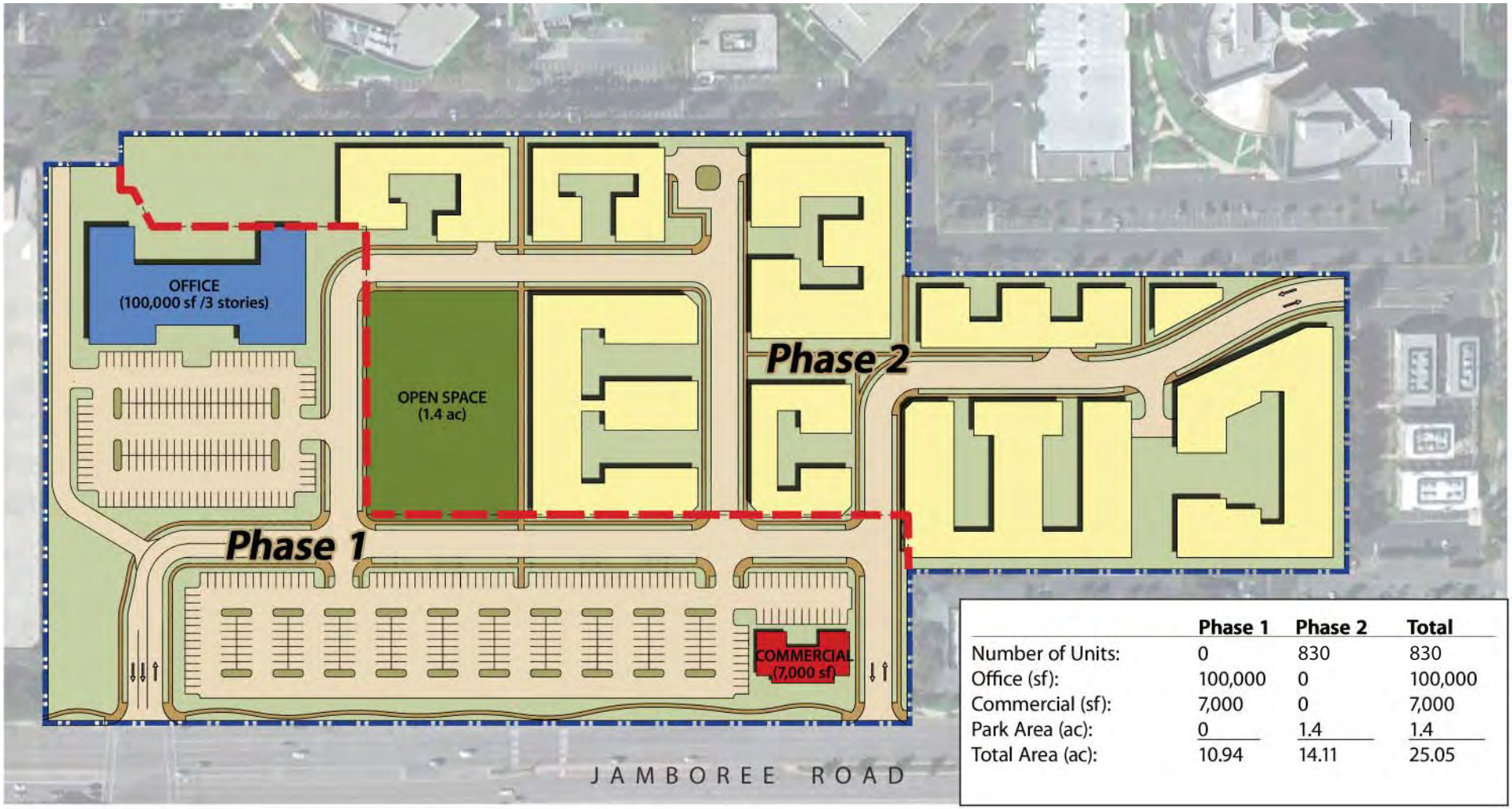
7.6.1 Environmental Assessment

Aesthetics

Phase 1

As with the proposed project, views of the surrounding scenic vistas would not be significantly impacted. New structures and buildings associated with this alternative would not substantially affect existing limited/intermittent views of the undeveloped open space beyond Jamboree Road within the North Campus planning area of UCI (see Figure 3-3, *Aerial Photograph*). In comparison to the proposed project, the building height and massing for Phase 1 would be reduced.

Office/Commercial/Residential Alternative



	Phase 1	Phase 2	Total
Number of Units:	0	830	830
Office (sf):	100,000	0	100,000
Commercial (sf):	7,000	0	7,000
Park Area (ac):	0	1.4	1.4
Total Area (ac):	10.94	14.11	25.05

Site Boundary Phasing Boundary

0 200
Scale (Feet)

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Due to the difference in land use mix and the introduction of office uses, this alternative would have a different character than the proposed project, but would nonetheless alter the overall character of the project site. As with the proposed project, the heights and scale of the office buildings would be comparable to existing office building skylines to the north, south, and west. As with the proposed project, the architectural, site, landscape, lighting, and streetscape design for the office uses would be driven by the required regulatory plan. The standards and guidelines outlined in the regulatory plan would ensure the orderly development of the hotel uses and that this alternative is developed in a manner that is not visually detrimental to the surrounding commercial and office uses.

Since building heights for Phase 1 would be reduced in comparison to the proposed project, this alternative would slightly reduce potential shade/shadow impacts, although light and glare impacts would likely be similar to the proposed project and include typical lighting for office uses, parking areas, and walkways.

Phase 2

Visual Character

Transition to residential uses under Phase 2 of this alternative would change the general character of the project site. As with the proposed project, the variable building scale of the residential buildings would be comparable in size to existing office building skylines to the north, south, and west and to the office buildings associated with Phase 1 of this alternative. The massing and heights of the proposed buildings under Phase 2 would also not create a significant visual barrier or separation within the office park. Additionally, as with Phase 1 of this alternative, the architectural, site, landscape, lighting, and streetscape design for the residential uses of Phase 2 would be driven by the required regulatory plan. The standards and guidelines outlined in the regulatory plan would ensure the orderly development of the residential uses and that this alternative is developed in a manner that is not visually detrimental to the surrounding commercial and office uses.

Overall, scenic vista, visual character, shade/shadow, and light and glare impacts would be similar to the proposed project, less than significant.

Air Quality

Phase 1

Regional Air Quality

Under this alternative, onsite operations would consist of 7,000 square feet of commercial uses and 100,000 square feet of office uses and the continued operation of the TowerJazz facility. This alternative is estimated to reduce Phase 1 vehicle trips by approximately 72 percent from the proposed project (Phase 1 only). Because transportation emissions comprises the majority of a development project's criteria air pollutant emissions inventory, it is assumed that the incremental increase in criteria air pollutant emissions generated by this alternative would be less than the proposed project. This alternative would substantially reduce the magnitude of operational phase air emissions during Phase 1. Operational phase air emissions by the proposed project are less than significant. Therefore, the incremental increase in emissions onsite would remain less than the SCAQMD thresholds. This alternative would reduce the proposed project's operational impacts.

Air Quality Compatibility

This alternative would also reduce project-related impacts related to placement of sensitive receptors proximate to major sources of toxic air contaminants, including the TowerJazz facility. While no significant

impacts were identified for the proposed project, commercial and office land uses are not considered sensitive land uses for air quality compatibility. Consequently, air quality impacts with this alternative would be less than significant, and this alternative would reduce air quality compatibility impacts of the project.

Phase 2

Regional Air Quality

Under this alternative, onsite operations would consist of 7,000 square feet of commercial retail space, 160,000 square feet of office space, and 830 residential units. TowerJazz would cease to operate prior to development of Phase 2, resulting in a substantial reduction in stationary source emissions onsite, the same as the proposed project. This alternative is estimated to reduce Phase 2 vehicle trips by23 percent from the proposed project (Phase 1 and Phase 2). Because transportation emissions comprise the vast majority of a development project's criteria air pollutant emissions inventory, it is assumed that the incremental increase in criteria air pollutant emissions generated by this alternative would be less than the proposed project. This alternative would reduce the magnitude of operational phase air emissions. Operational phase air emissions by the proposed project are less than significant. Therefore, the incremental increase in emissions onsite would remain less than the SCAQMD thresholds. This alternative would reduce the proposed project's operational impacts.

Construction – Phase 1 and Phase 2

Regional and Localized Air Quality

Construction emissions would be similar in this alternative to those of the proposed project. Both scenarios would involve development on a portion of the site and may include subterranean parking, resulting in similar equipment use during the grading phase. Construction emissions impacts of this alternative would be similar to the proposed project and would require similar mitigation. As with the proposed project, regional construction-related air quality impacts would be significant and unavoidable.

Biological Resources

Phase 1 and Phase 2

Although this alternative would replace some of the residential uses for office and commercial uses, its impacts to biological resources would be similar to those of the proposed project since they would both develop the entire site. The same project mitigation would be required under this alternative, and impacts would be less than significant with mitigation.

Cultural Resources

Phase 1 and Phase 2

Cultural resources impacts would be similar to the proposed project since this alternative would redevelop the entire site. Recommended mitigation under this alternative would be the same as the proposed project. Overall, as with the proposed project, cultural resource impacts would be less than significant.

Geology and Soils

Phase 1 and Phase 2

The Office/Commercial/Residential Alternative would involve disturbing the entire project site and grading the same acreage under each phase similar to the proposed project. During project operation, this alternative would introduce office employees and commercial patrons and eliminate the number of permanent residents who would be potentially exposed to seismic-related hazards (e.g., ground shaking, liquefaction) associated with the project site. These seismic hazards, however, are similar to most of southern California. Impacts from expansive soils would also be similar to the proposed project.

Overall, geology and soils impacts would be similar to the proposed project and, as with the proposed project, recommended mitigation would mitigate impacts to less than significant.

Greenhouse Gas Emissions

Phase 1

Under this alternative, onsite operations would consist of 7,000 square feet of commercial uses and 100,000 square feet of office uses and the continued operation of the TowerJazz facility. This alternative is estimated to reduce Phase 1 vehicle trips by 73 percent from the proposed project (Phase 1 only). Because transportation emissions comprise the majority of a development project's greenhouse gas (GHG) emissions inventory, it is assumed that the incremental increase in GHG emissions generated by this alternative would be substantially less than the proposed project. While this alternative would be less dense than the proposed project and therefore less efficient on a per capita basis, this alternative would substantially reduce the magnitude of operational phase air emissions during Phase 1. GHG emissions generated by Phase 1 of this alternative would likely not exceed the draft SCAQMD bright-line screening threshold of 3,000 MTons because of the substantial decrease in vehicle trips. GHG emissions impacts of the proposed project are less than significant. Therefore, GHG emissions impacts during Phase 1 of this alternative would be less than significant.

Phase 2

Under this alternative, onsite operations would consist of 7,000 square feet of commercial retail space, 160,000 square feet of office space, and 830 residential units. The TowerJazz facility would cease to operate prior to development of Phase 2, resulting in a substantial reduction in stationary source GHG emissions onsite, the same as the proposed project. This alternative is estimated to reduce Phase 2 vehicle trips by 23 percent from the proposed project (Phase 1 plus Phase 2). Because transportation emissions comprise the majority of a development project's GHG emissions inventory, it is assumed that the incremental increase in GHG emissions generated by this alternative would be less than the proposed project. This alternative would not be as dense as the proposed project; therefore, on a per capita basis (employees + residents) this alternative would generate slightly higher per capita GHG emissions. However, because the TowerJazz facility generates a substantial amount of GHG emissions, the decrease in GHG emissions from its closure overwhelms any potential increase in GHG generated by this project alternative. As with the proposed project, this alternative would result in a beneficial GHG emissions impact. GHG emissions impacts of the proposed project are less than significant and would be less than significant with this alternative.

Hazards and Hazardous Materials

Phase 1

Under this alternative, the TowerJazz facility would continue operation during an interim period after the Phase 1 improvements were completed and occupied. Office tenants and commercial use employees and customers would be subject to the hazards associated with the potential release of hazardous chemicals from the TowerJazz portion of the site as well as potential vapor intrusion impacts. In comparison to future residents under Phase 1 of the proposed project, however, the duration of office employees and commercial patrons would be reduced substantially. Moreover, this alternative would comply with the City's CFC amendment prohibiting residential uses adjacent to storage of extremely hazardous chemicals in excess of defined quantities. Potential hazards would be reduced under this alternative for Phase 1, and in comparison to the proposed project, this alternative would comply with CFC Section 2704.1.1 (Amendment). With mitigation, this impact is less than significant for the proposed project; therefore, this alternative would not eliminate a significant, unavoidable impact.

Phase 2

Under this alternative, Phase 1 office tenants and commercial employees and customers would be subject to potential exposure to hazardous materials, including building materials (asbestos and lead paint) when the Phase 2 portion of the site is developed. This impact would be reduced relative to the proposed project; however, the duration of exposure would be reduced (residents with potential 24 hour exposure). As with the proposed project, Phase 2 development could not occur until site remediation was completed and cleared by the RWQCB for development. The Phase 2 residential development for this alternative is assumed to be the same as Phase 2 for the proposed project, and impacts for this phase would be the same.

Overall hazards and hazardous materials for this alternative project would be reduced in comparison to the proposed project, and this alternative would eliminate one potential significant impact. Since that impact (compliance with CFC Section 2401.1.1[Amendment]) would be mitigated to less than significant for the proposed project, this alternative would not eliminate any significant, unavoidable impacts.

Hydrology and Water Quality

Phase 1 and Phase 2

As with the proposed project, the majority of the site would be developed with impervious surfaces under this alternative. As shown in the conceptual plan for this alternative (see Figure 7-2, *Office/Commercial/Residential Alternative Site Plan and Phasing Plan*), including expansive surface parking, this alternative may increase impervious surfaces in comparison to the proposed project and therefore increase surface runoff. Subterranean parking, however, could be provided for the office use, however, potentially increasing open space and landscaping opportunities. As with the proposed project, storm drains could accommodate surface runoff, and water quality treatments would meet regulatory standards assuring that impacts would be mitigated to less than significant.

Overall, hydrology and water quality impacts would be similar to the proposed project, and less than significant.

Land Use and Planning

Phase 1 and Phase 2

As with the proposed project, development of this alternative would not physically divide an established community through the introduction of either physical or community barriers. The land uses proposed under this alternative would be compatible with and complementary to the adjacent and surrounding office and commercial uses. Additionally, as with the proposed project, this alternative would not introduce any roadways or infrastructure that would bisect or transect the adjacent business park uses.

Although the office uses proposed under this alternative are permitted under the General Plan land use designation of Mixed-Use Horizontal-2 (MU-H2), this alternative would not be as effective as the proposed project in achieving some of the specific goals and objectives of the City's General Plan. Moreover, it would not be consistent with the ICDP approved for the combined 25-acre Uptown Newport project site and 12.7-acre adjacent Koll project site. This alternative would provide 830 residential units in comparison to the 1,244 anticipated for the project site in the ICDP. The General Plan's policies for the Airport Area and the ICDP call for the orderly evolution of this area from a single-purpose business park to a mixed-use district with cohesive residential villages integrated within the existing fabric of the office, industrial, retail, and airport-related businesses.

This alternative would be consistent with other applicable regional and local plans, including SCAG's Regional Transportation Plan/Sustainable Communities Strategy.

As with the proposed project, this alternative would require review by ALUC for consistency with the AELUP prior to Newport Beach City Council action on the alternative. The office and commercial uses under this alternative would not be subject to the AELUP noise level restrictions that apply to the residential units as proposed in the Uptown Newport project and Phase 2 of this alternative. As with the proposed project, the maximum building heights for residential towers of Phase 2 of this alternative would be 150 feet. It is assumed that this alternative could be designed to be consistent with any height restrictions pursuant to the AELUP, but as with the proposed project, a consistency finding would be required by ALUC. Since this alternative would have fewer residential units and building heights for Phase 1 would be reduced relative to the proposed project, AELUP consistency impacts would be slightly less than the proposed project, but still potentially significant until reviewed and approved by ALUC. This alternative, therefore, would not eliminate the potentially significant land use impact.

Overall, land use and planning impacts for this project alternative would be slightly greater than for the proposed project.

Noise

Phase 1

Noise and Land Use Compatibility

This alternative would include the development of nonsensitive land uses in Phase 1, thereby eliminating project-related land use compatibility issues related to the placement of residential uses under Phase 1 adjacent to the TowerJazz facility.

Construction Noise

This alternative would involve disturbance of the same area as Phase 1 of the proposed project. As with the proposed project, the operation of construction equipment would have the potential to cause annoyance and interfere with activities at the adjacent office buildings and the TowerJazz facility facing the construction area.

Construction Vibration

This alternative would involve disturbance of the same area and would require the use of heavy construction equipment similar to the proposed project. As with the proposed project, the TowerJazz building would continue to operate during construction and initial operation of Phase 1 of this alternative. Construction activity would have the potential to cause annoyance and interfere with activities at the office buildings and the TowerJazz facility facing the construction area. Under this alternative, vibration impacts during project construction would be similar to the proposed project, less than significant after mitigation.

Phase 2

Noise and Land Use Compatibility

Phase 2 of this alternative would develop residential uses similar to the proposed project. Under this alternative, long-term noise impacts related to noise and land use compatibility would be similar to the proposed project (less than significant with mitigation), as noise from aircraft overflights and nearby roads would be similar.

Construction Noise

Under this alternative, short-term construction activity noise impacts related to noise generated from Phase 2 construction activities on Phase 1 residents would be eliminated. However, construction noise impacts to nearby office and commercial uses would be similar to the proposed project and would remain significant and unavoidable.

Construction Vibration

This alternative would involve disturbance of the same area and would require the use of heavy construction equipment similar to the proposed project, which in turn would have the potential to cause sporadic annoyance on the uses constructed under Phase 1 and on adjacent office and commercial uses. Under this alternative, vibration impacts during project construction would be similar to the proposed project, less than significant after mitigation.

Overall, temporary noise and vibration impacts during construction of Phase 1 and Phase 2 of this alternative would be similar to the proposed project. Noise impacts during project construction would remain significant and unavoidable.

Population and Housing

Phase 1 and Phase 2

As shown in Table 7-1, *Statistical Summary Comparison,* this alternative would generate approximately 595 employees. The elimination of the residential uses and the increase in employees in Phase 1 would increase the City's jobs/housing ratio, which is jobs rich. Overall, the population and housing impact of this alternative would be greater than the proposed project, but as with the proposed project, would be less than significant without mitigation.

As quantified in Table 7-1, this alternative would provide both jobs and housing. In comparison to the estimated 26 jobs provided by the proposed project, this alternative would provide an estimated 300 employees. It would provide 830 housing units in Phase 2, and as with the proposed project, would be conditioned to provide 15 percent affordable housing units (125 units). This alternative would assist the City in achieving its RHNA goals, but not to the same degree as the proposed project, which would provide 185 affordable units.

The jobs/housing ratio for this alternative is 1.88 in comparison to the City's existing ratio of 2.15. Although not as effective as the proposed project with a 1.78 jobs/housing ratio, this alternative would also be beneficial in providing housing to Newport Beach, which is jobs rich.

Overall, housing and population impacts are similar to the proposed project and less than significant.

Public Services

Phase 1 and Phase 2

This alternative would be expected to reduce the demand on public services in comparison to the proposed project. A reduction in residential units from 1,244 for the proposed project to 830 for this alternative would reduce impacts to library and school services. Since high density residential uses typically generate a high need for police and fire services, the office/commercial/residential land use mix would also likely reduce the demand for these services relative to the proposed project. Overall, public service impacts would be reduced in comparison to the proposed project, and like the proposed project, these impacts would be less than significant with mitigation.

Recreation

Phase 1 and Phase 2

Due to the reduction in residential units relative to the proposed project (1,244 for the proposed project to 830 for this alternative), this alternative would reduce the project-generated need for recreational facilities. As with the proposed project, this alternative would provide the improved open space standard or in-lieu fees to achieve the City's standard. Overall, recreation impacts for this alternative would be reduced in comparison to the proposed project.

Transportation and Traffic

Phase 1 and Phase 2

As shown on Table 7-5, *Office/Commercial/Residential Alternative Trip Generation*, this alternative is projected to generate 6,805 daily trips, 584 during the AM peak hour and 672 during the PM peak hour. Compared to the proposed project, this alternative would generate 2,228 fewer daily trips, and 157 fewer trips during the PM peak hour and 60 fewer trips during the AM peak hour. However, this alternative would generate 89 more inbound trips during the AM peak hour, which would add traffic to the predominant traffic flow on roadways in the vicinity of the site during the AM peak hour. Because this alternative would add traffic to the predominant traffic flow along nearby roadways, this alternative would result in increased impacts relative to the proposed project for the morning peak hour.

The proposed project would develop residential uses in close proximity to employment and commercial centers that could serve as encouragement to the residents of the proposed project to walk or bike to work

or shop rather than drive. This alternative would be less effective than the proposed project in promoting alternative transportation modes such as walking, biking, and public transit, since residential uses would be limited to Phase 2 and substantially reduced relative to the proposed project.

In summary, although total daily trips would be reduced in comparison to the proposed project, the overall transportation and traffic character of this alternative would be different and not provide some of the benefits of the proposed project. Overall, transportation and traffic impacts would be considered similar. As with the proposed project, it is anticipated that impacts would be less than significant.

Utilities and Service Systems

Phase 1 and Phase 2

Compared to the proposed project, the Office/Commercial/Residential Alternative would introduce office uses, increase commercial uses, and reduce the number of residential units. Based on the generation rates that would be applicable to each of the utility and service system demands (wastewater, water, solid waste, electricity, and natural gas) for each of the land uses, the overall demand for utility and service systems would be reduced under this alternative compared to the proposed project. As with the proposed project, it is anticipated that impacts would be less than significant without mitigation.

7.6.2 Ability to Reduce Environmental Impacts

In comparison to the proposed project, the Office/Commercial/Residential Alternative would reduce impacts to air quality, GHG, hazards, noise, public services, recreation, and utilities and services. Since residential uses would not be introduced until Phase 2 after the TowerJazz facility is removed, it would comply with CFC Section 2704.1.1 (Amendment) (it would not locate residents adjacent to extremely dangerous chemicals). This would eliminate a significant impact associated with the project as proposed. This impact, however, would be mitigated to less than significant, so it would not eliminate a significant, unavoidable impact. Land use and planning and population and housing impacts for this alternative would be greater than the proposed project, and aesthetics, biological resource, cultural resources, geology and soils impacts, and hydrology/water quality impacts would be similar.

7.6.3 Ability to Achieve Project Objectives

With the introduction of 830 residential units as part of a mixed-use residential village, this alternative would meet several of the project's objectives. It would be consistent with several of the goals and policies of the General Plan for the Airport Area, although it would not be consistent with the ICDP approved for the site, which provides for the development of 1,244 residential units. This alternative would provide 7,000 square feet of commercial use (or potentially more) and therefore achieve the objective to provide retail commercial to serve local residents, businesses and visitors. Although less than the proposed project, this alternative would provide housing near jobs and supporting services, with pedestrian-oriented amenities, and would provide the phased transition from the existing use to the office, commercial, and residential uses. It would also provide several of the beneficial impacts of the proposed project, including implementing a WQMP. It is uncertain whether this alternative would be a viable project that could yield a reasonable return on investment. As discussed in Section 7.5.4, there is currently a high vacancy rate for offices (24.9 percent). It is highly unlikely that office use in Phase 1 of this alternative would be viable. It is more likely that the 7,000 square feet of commercial use could be absorbed under this alternative.

7.7 REDUCED DENSITY ALTERNATIVE

This alternative evaluates the minimum number of residential units that could be developed on the project site and still comply with the 30 dwelling units/acre minimum density prescribed for the site in the City's General Plan and the ICDP. Based on an estimated, net developable 12.34 acres for the site, 561 units could be developed: 260 dwelling units in Phase 1 and 301 in Phase 2. As with the proposed project, this alternative is assumed to include 11,500 square feet of commercial use in Phase 1. A conceptual plan for this alternative is included as Figure 7-3, *Reduced Density Alternative.*

This alternative was evaluated for its potential to reduce overall long-term operational project impacts due to the substantial reduction in housing units. This alternative was also designed to provide a larger open space buffer between the TowerJazz facility and Phase 1 to evaluate the potential to minimize compatibility impacts related to the proximity of the TowerJazz facility and residences during Phase 1 in the proposed project.

As with the proposed project, a variety of housing developments could be anticipated under this alternative. Residential product types would be for sale and rent with a mix of apartments, townhouses, and condominiums. Since the number of units would be reduced by 55 percent in comparison to the proposed project, both the overall footprint and height of residential buildings could be reduced in comparison to the proposed project. Residential buildings would include low-rise townhouses and 4- and 5-story apartments or condominiums featuring a range of floor plan sizes. Mid- to high-rise buildings are also envisioned at a maximum height of 75 feet. This alternative would not include any high-rise towers up to 150 feet, as proposed under the proposed project. The commercial component would include neighborhood-serving retail and services.

As with the proposed project, it is assumed that this alternative would include some improved park space that would be available for public use. With the reduction in housing units, it is anticipated that open space acreage could be increased relative to the proposed project (as shown in the conceptual plan, Figure 7-3). As shown in the conceptual layout, approximately eight acres may be available for open space uses. It has not been defined whether the entire open space area would be maintained privately and be available to the public. In addition to the neighborhood parks, public open space areas, private open space areas, and ancillary amenities would be provided to serve residents and visitors, and paseo and walkway connections would be provided onsite and to surrounding areas.

Phase 1

Phase 1 would include demolition of the Half Dome building and other associated site improvements, including parking areas, landscaped and common areas, and other hardscape improvements. Upon demolition, this phase would include the development of up to 260 dwelling units and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The dwelling units could be accommodated within low-, mid- or high-rise buildings, or a mix of these building types. Phase 1 would also include up to 11,500 square feet of neighborhood-serving commercial uses and likely improvements to a portion of the open space to serve as a neighborhood park available also for public use.

Phase 2

Under Phase 2, the TowerJazz building, northern parking area, and other remaining site improvements would be demolished to develop up to 301 dwelling units and other associated site improvements, including parking areas, drive aisles, walkways, landscaping, and common areas. The dwelling units could be accommodated within low-, mid- or high-rise buildings, or a mix of these building types. Phase 2 would also

include open space area that could accommodate a neighborhood park, which would be available to the public.

Trip Generation

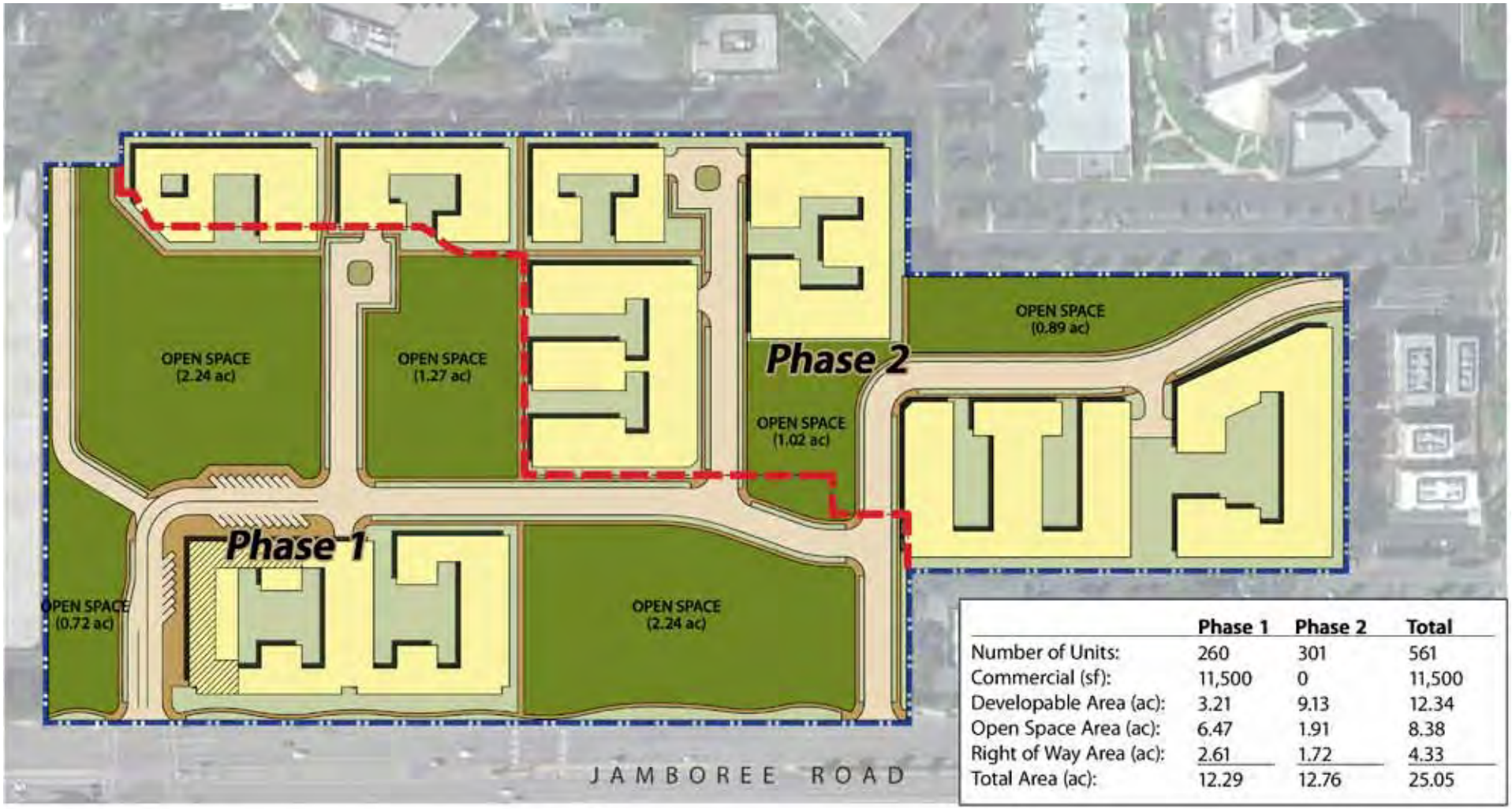
Table 7-6 provides the number of vehicle trips that would be generated under Phases 1 and 2 of this alternative. The trip generations were based on the ITE *Trip Generation* (8th edition) rates used in the proposed project's traffic study. As shown in Table 7-6, this alternative would generate 4,139 ADT, 297 AM peak hour trips, and 370 PM peak hour trips.

Table 7-6
Reduced Density Alternative Trip Generation

Land Use	ITE Code	Unit	Trip Generation Rates [1]						
				AM Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total
Apartment [2]	220	DU	6.65	0.10	0.41	0.51	0.40	0.22	0.62
Specialty Retail Center [3]	814	KSF	44.32	0.61	0.39	1.00	1.19	1.52	2.71
Land Use	**Quantity**	**Unit**	**Trip Generation Estimates**						
				AM Peak Hour			PM Peak Hour		
			Daily	In	Out	Total	In	Out	Total
Apartment [2]	561	DU	3,731	57	229	286	226	122	348
Specialty Retail Center [3]	11,500	KSF	510	7	4	11	14	17	31
Subtotal – Before Internal Capture/Pass-by			**4,241**	**64**	**233**	**297**	**240**	**139**	**379**
Internal Trip Capture [4]			**102**	—	—	—	**3**	**3**	**6**
Pass-By Reduction for Retail (10%) [5]			—	—	—	—	**1**	**2**	**3**
Total			**4,139**	**64**	**233**	**297**	**236**	**135**	**370**
Proposed Project Total Trips			**9,033**	**134**	**511**	**644**	**537**	**292**	**829**
DIFFERENCE			**-4894**	**-70**	**-278**	**-347**	**-301**	**-157**	**-459**

Source: Kimley-Horn and Associates, 2012.
Notes: KSF = Thousand Square Feet; DU = Dwelling Unit
[1] Institute of Transportation Engineers publication: Trip Generation, 8th Edition.
[2] The alternative may consist of a combination of multi-family residential product types, including condominium, apartment, townhome, etc. For a most conservative trip generation analysis, the ITE trip generation rates for "Apartment" are used here.
[3] ITE Trip Generation does not provide AM peak hour rates for a Specialty Retail Center. Therefore, the AM peak hour rates for Land Use Category 820 (Shopping Center) were used to estimate AM peak hour trips.
[4] ITE Trip Generation Handbook.
[5] Based on net retail trips, after internal capture reduction.

Reduced Density Alternative



	Phase 1	Phase 2	Total
Number of Units:	260	301	561
Commercial (sf):	11,500	0	11,500
Developable Area (ac):	3.21	9.13	12.34
Open Space Area (ac):	6.47	1.91	8.38
Right of Way Area (ac):	2.61	1.72	4.33
Total Area (ac):	12.29	12.76	25.05

Site Boundary

Phasing Boundary

Ground-Level Neighborhood-Serving Retail

0 200
Scale (Feet)

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Aesthetics

Phase 1 and Phase 2

As with the proposed project, views of the surrounding scenic vistas would not be significantly impacted under the Reduced Density alternative. In comparison to the proposed project, this alternative would be characterized by reduced building mass and heights. Building height maximum would be 75 feet in comparison to the 150 feet for potential residential towers under the proposed project. This alternative would also incorporate approximately eight acres of open space, in comparison to just over two acres for the proposed project. Although not significant for the proposed project, this alternative would reduce viewshed impacts in comparison to the proposed project.

As with the proposed project, this alternative would be limited to residential and commercial uses, and the commercial use would be integrated as ground-level neighborhood serving retail at the primary project entrance in Phase 1. The substantial reduction in project density, would, however, alter the character of the site in comparison to the proposed project. As with the proposed project, the architectural, site, landscape, lighting, and streetscape design for the office uses would be driven by the required regulatory plan. The standards and guidelines outlined in the regulatory plan would ensure the orderly development of the residential uses and that this alternative is developed in a manner that is not visually detrimental to the surrounding commercial and office uses.

Since building heights for Phase 1 would be reduced in comparison to the proposed project, this alternative would reduce potential shade/shadow impacts. However, light and glare impacts would likely be similar to the proposed project and include typical lighting for office uses, parking areas, and walkways.

This alternative would provide more open space, and buildings would be limited to four or five stories. Without residential towers, it may not provide the diversity and variation of housing unit types that make the proposed project visually interesting. The visual character would also depend on the capability for the applicant or successor, and/or City (if parkland was dedicated) to maintain the more extensive open space under this alternative. Overall, scenic vista, visual character, shade/shadow, and light and glare impacts would be similar to the proposed project and less than significant.

Air Quality

Phase 1

Regional Air Quality

Under this alternative, onsite operations would consist of 11,500 square feet of commercial uses and 260 residential uses and the continued operation of the TowerJazz facility. This alternative is estimated to reduce vehicle trips during Phase 1 by 58 percent from the proposed project (Phase 1 only). Because transportation emissions comprise the majority of a development project's criteria air pollutant emissions inventory, it is assumed that the incremental increase in criteria air pollutant emissions generated by this alternative would be substantially less than the proposed project. This alternative would substantially reduce the magnitude of operational phase air emissions during Phase 1. Operational phase air emissions by the proposed project are less than significant. Therefore, the incremental increase in emissions onsite would remain less than the SCAQMD thresholds. This alternative would reduce the proposed project's operational impacts.

Air Quality Compatibility

This alternative would reduce impacts related to placement of sensitive receptors proximate to major sources of toxic air contaminants. This alternative would place residential uses in close proximity to the TowerJazz facility, a major stationary source emitter, in comparison to the proposed project, which would situate residents immediately adjacent to TowerJazz. Moreover, substantially fewer units would be introduced, to the project site. Air quality compatibility impacts would be reduced in comparison to the proposed project for Phase 1, and as with the proposed project, would be less than significant.

Phase 2

Regional Air Quality

Under this alternative, onsite operations would consist of 11,500 square feet of commercial retail space and 561 residential units. TowerJazz would cease to operate prior to development of Phase 2, resulting in a substantial reduction in stationary source emissions onsite, the same as the proposed project. This alternative is estimated to reduce vehicle trips during Phase 2 (project buildout) by 54 percent from the proposed project. Because transportation emissions comprise the vast majority of a development project's criteria air pollutant emissions inventory, it is assumed that the incremental increase in criteria air pollutant emissions generated by this alternative in comparison to existing conditions would be substantially less than the proposed project. This alternative would substantially reduce the magnitude of operational phase air emissions in comparison to the proposed project. Operational phase air emissions by the proposed project are less than significant. This alternative would reduce the proposed project's operational impacts, and they would be less than significant, as with the proposed project.

Construction – Phase 1 and Phase 2

Regional and Localized Air Quality

Construction emissions for this alternative would be similar to the proposed project. The maximum daily emissions for construction activities would be related to site grading and improvements requiring major construction equipment for both scenarios. Construction emissions impacts for this alternative, therefore, would be similar to the proposed project and would require similar mitigation. As with the proposed project, regional construction-related air quality impacts would be significant and unavoidable.

Biological Resources

Phase 1 and Phase 2

Impacts to biological resources under this alternative would be similar to those of the proposed project, since they would both develop the entire site. Trees and other vegetation onsite could be used for nesting by migratory birds protected under the Migratory Bird Treaty Act. As with the proposed project, development under this alternative would remove all existing vegetation onsite. Development would be required to implement mitigation regarding potential impacts to active nests in and near the project area similar to that outlined in Section 5.3, *Biological Resources*. Overall, as with the proposed project, biological resource impacts would be less than significant with mitigation.

Cultural Resources

Phase 1 and Phase 2

Cultural resources impacts would be similar to the proposed project as this alternative would redevelop the entire site. Recommended mitigation under this alternative would be the same as the proposed project. Overall, as with the proposed project, cultural resource impacts would be less than significant.

Geology and Soils

Phase 1 and Phase 2

The Reduced Density Residential alternative would involve disturbing the entire project site and grading the same acreage under each phase similar to the proposed project. During project operation, this alternative would introduce fewer residents to the site than the proposed project who would be potentially exposed to seismic-related hazards (e.g., ground shaking, liquefaction) associated with the project site. These seismic hazards, however, are similar to most of southern California. Impacts from expansive soils would also be similar to the proposed project.

Overall, geology and soils impacts would be similar to the proposed project and as with the proposed project, recommended mitigation would mitigate impacts to less than significant.

Greenhouse Gas Emissions

Phase 1

Under this alternative, onsite operations would consist of 11,500 square feet of commercial uses and 260 residential uses and the continued operation of the TowerJazz facility. This alternative is estimated to reduce vehicle trips during Phase 1 by 58 percent from the proposed project (Phase 1 only). Because transportation emissions comprise the majority of a development project's greenhouse gas (GHG) emissions inventory, it is assumed that the incremental increase in GHG emissions generated by this alternative would be substantially less than the proposed project. This alternative would be less dense than the proposed project and would have slightly higher per capita emissions than the proposed project because while it includes a similar mix of commercial and residential uses, it has less residential population. However, this alternative would substantially reduce the magnitude of operational phase air emissions during Phase 1. GHG emissions generated by Phase 1 of this alternative would likely not exceed the draft SCAQMD bright-line screening threshold of 3,000 MTons because of the substantial decrease in vehicle trips in Phase 1. GHG emissions impacts of the proposed project are less than significant. Therefore, GHG emissions impacts during Phase 1 of this alternative would also be less than significant.

Phase 2

Under this alternative, onsite operations would consist of 11,500 square feet of commercial retail space and 561 residential units. TowerJazz would cease to operate prior to development of Phase 2, resulting in a substantial reduction in stationary source GHG emissions onsite, the same as the proposed project. This alternative is estimated to reduce vehicle trips during Phase 2 (project buildout) by 54 percent from the proposed project. Because transportation emissions comprise the majority of a development project's GHG emissions inventory, it is assumed that the incremental increase GHG emissions generated by this alternative in comparison to existing conditions would be substantially less than the proposed project. While this alternative would not be as dense as the proposed project, on a per capita basis (employees plus residents)

this alternative would generate the same per capita GHG emissions because it includes a similar mix of commercial and residential land uses. However, because the TowerJazz facility generates a substantial amount of GHG emissions, the decrease in GHG emissions from closure of TowerJazz would overwhelm any potential increase in GHG generated by this project alternative. As with the proposed project, this alternative would result in a beneficial GHG emissions impact. As with the proposed project, GHG emissions for this alternative would be less than significant.

Hazards and Hazardous Materials

Phase 1

As with the proposed project, the TowerJazz facility would continue operation during an interim period after Phase 1 improvements are completed and occupied. In comparison to the proposed project, this alternative would reduce the number of residents potentially exposed to Phase 1 site hazards (from 680 residential units for the proposed project to 260 units). Moreover, under this alternative, the closest residential unit would be approximately 100 feet from the TowerJazz facility in comparison to 25 feet for the proposed project. Residences would therefore be farther from the contaminated portion of the TowerJazz site and related vapor intrusion health risk and risks associated with a potential chemical release. Potential Phase 1 resident exposure to hazards would therefore be reduced for this alternative in comparison to the proposed project.

Potential hazardous material releases (asbestos and lead paint) impacts associated with development of Phase 1 and demolition of the Half Dome building would be similar to the proposed project.

Phase 2

Under this alternative, Phase 1 residents and commercial employees and patrons would be subject to potential exposure of hazardous materials, including building materials (asbestos and lead paint), when the Phase 2 portion of the site is developed. This impact would be slightly reduced in comparison to the proposed project relative to the reduction in Phase 1 residents. Phase 2 development could not occur until site remediation was completed and cleared by the RWQCB for development. Although fewer residences are proposed in Phase 2 in comparison to the proposed project, the onsite hazards would be remediated, so the impacts would be similar and less than significant.

Overall hazard and hazardous materials impacts for this alternative would be less than for the proposed project. As with the proposed project, however, impacts would be significant prior to mitigation.

Hydrology and Water Quality

Phase 1 and Phase 2

In comparison to the proposed project, the Reduced Density Alternative would include more open space, less pervious surface. Therefore, site runoff would be expected to be reduced. As with the proposed project, storm drains could accommodate surface runoff, and water quality treatments would meet regulatory standards, assuring that impacts would be mitigated to less than significant.

Overall, hydrology and water quality impacts would be similar to the proposed project and less than significant.

Land Use and Planning

Phase 1 and Phase 2

As with the proposed project, development of this alternative would not physically divide an established community through the introduction of either physical or community barriers. The land uses proposed under this alternative would be compatible with and complementary to the adjacent and surrounding office and commercial uses. Additionally, as with the proposed project, this alternative would not introduce any roadways or infrastructure that would bisect or transect the adjacent business park uses.

The Reduced Density Alternative would be consistent with the General Plan land use designation of Mixed-Use Horizontal-2 (MU-H2) and the Airport Area Integrated Conceptual Development Plan. This alternative has been designed to achieve the minimum density allowed by these plans (30 du/ac). This alternative would only provide 560 residential units in comparison to the 1,244 anticipated for the project site in the ICDP. This alternative would be consistent with other applicable regional and local plans, including SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

As with the proposed project, this alternative would require review by ALUC for consistency with the AELUP prior to Newport Beach City Council action on the alternative. Due to the elimination of the 150-foot-high towers under this alternative, consistency with the AELUP would unlikely be an issue, but as with the proposed project, a consistency finding with the AELUP would be required by ALUC due to the zone change (adoption of PCDP). Impacts would be potentially significant until reviewed and approved by ALUC. This alternative, therefore, would not eliminate the potentially significant impact.

Overall, land use and planning impacts for this project alternative would be similar to the proposed project.

Noise

Phase 1

Noise and Land Use Compatibility

As with the proposed project, development under this alternative would include residential and commercial uses similar to the proposed project. Fewer residences would be proposed, however, and the closest residences to the TowerJazz facility would be approximately 100 feet instead of 25 feet as proposed under the Uptown Newport project. The increased distance from the TowerJazz noise source would decrease operational noise impacts in comparison to the proposed project. As with the proposed project, this impact would be less than significant with mitigation. The mitigation and costs associated with implementing the components of the mitigation, however, would be expected to be less intensive than the mitigation required for the proposed project.

Construction Noise

This alternative would involve disturbance of the same area as Phase 1 of the proposed project and require the same major construction equipment. Some reduction in the overall duration of construction impacts could be anticipated because of the reduced number of residential units. As with the proposed project, the operation of construction equipment would have the potential to cause annoyance and interfere with activities at the office buildings and the TowerJazz facility facing the construction area. Construction noise impacts to nearby office and commercial uses would be slightly reduced in comparison to the proposed project, but would remain significant and unavoidable.

Construction Vibration

This alternative would involve disturbance of the same area and would require the use of heavy construction equipment similar to the proposed project. Since the closest residences to the TowerJazz facility would be approximately 100 feet away instead of 25 feet in the proposed project, the use of heavy construction equipment for building construction, including subterranean parking, would be at a greater distance. Vibration impacts to the TowerJazz facility, therefore, would be reduced. Although reduced under this alternative, vibration impacts during project construction would be significant prior to mitigation and less than significant upon implementation of mitigation.

Phase 2

Noise and Land Use Compatibility

Under this alternative, long-term noise impacts related to noise and land use compatibility would be similar to the proposed project, as noise from aircraft overflights and nearby roads would be similar. However, as with the proposed project, noise impacts to the proposed residential uses would be less than significant with mitigation.

Construction Noise

This alternative would involve disturbance of the same area as the proposed project. As with the proposed project, the operation of construction equipment would have the potential to cause annoyance and interfere with activities at the office buildings facing the construction area, and would expose occupants of residences constructed during Phase 1 to high noise levels. In comparison to the proposed project, however, fewer residents would be exposed to construction noise. Under this alternative, construction noise impacts would be similar to the proposed project, significant and unavoidable.

Construction Vibration

This alternative would involve disturbance of the same area as the proposed project and would require the use of similar heavy construction equipment, which in turn would have the potential to cause sporadic annoyance at the uses constructed during Phase 1 and at adjacent office and commercial uses. Under this alternative, vibration impacts during project construction would be similar to the proposed project, less than significant after mitigation.

Overall, temporary noise and vibration impacts during construction of Phase 1 and Phase 2 of this alternative would be slightly reduced in comparison to the proposed project. Long-term operational impacts would also be slightly reduced in comparison to the proposed project. Noise impacts during project construction would remain significant and unavoidable.

Population and Housing

Phase 1 and Phase 2

As shown in Table 7-1, *Statistical Summary Comparison*, as with the proposed project, this alternative would generate approximately 26 employees. It would provide 561 units, of which 15 percent would be affordable units (84 units). These units would assist the City in achieving its Regional Housing Need Assessment goals, but not to the same degree as the proposed project, which would provide 184 affordable units.

The jobs/housing ratio for this alternative is 1.81 in comparison to the proposed project's ratio of 1.82 and the City's existing ratio of 2.15. This alternative, therefore, would be similar to the proposed project in providing additional housing to Newport Beach, which is jobs rich.

Overall, housing and population impacts are greater than the proposed project (less beneficial) and less than significant.

Public Services

Phase 1 and Phase 2

This alternative would be expected to reduce the demand on public services proportionate to the reduction in housing units in comparison to the proposed project (from 1,244 for the proposed project to 561 for this alternative). Service demand for police, fire, schools, and library services would all be reduced. Overall, public service impacts would be reduced in comparison to the proposed project, and like the proposed project, these impacts would be less than significant with mitigation.

Recreation

Phase 1 and Phase 2

Due to the reduction in residential units relative to the proposed project, this alternative would reduce the project-generated need for recreational facilities. Per the conceptual layout as shown in Figure 3, *Reduced Density Alternative,* the open space provided could meet the City's requirement to provide five acres of park per 1,000 residents. This alternative provides 8.38 acres of open space, and based on 561 units, would generate a population of 1,228 residents, requiring a total of 6.15 acres of park area. Alternatively, as with the proposed project, this alternative could achieves the park requirement with payment of in-lieu fees. Overall, recreation impacts for this alternative would be reduced in comparison to the proposed project.

Transportation and Traffic

Phase 1 and Phase 2

As shown in Table 7-6, *Reduced Intensity Alternative Trip Generation*, this alternative is projected to generate 4,139 daily trips, 297 during the AM peak hour, and 370 during the PM peak hour. Compared to the proposed project, this alternative would generate 4,894 fewer daily trips, 347 fewer trips during the AM peak hour, and 459 fewer trips during the PM peak hour. Phase 1 of this alternative would also generate substantially fewer trips than the proposed project. As with the proposed project, the peak trips generated by this alternative would be generally opposite to the predominant traffic flow. This alternative would reduce project trip generation and, like the proposed project, it would not cause significant traffic impacts.

The proposed project would develop residential uses in close proximity to employment and commercial centers that could encourage residents of the proposed project to walk or bike to work or shop, rather than drive. This alternative would be less effective than the proposed project in promoting alternative transportation modes such as walking, biking, and public transit, due to the development of less residential use on the project site (561 versus 1,244 units) than planned under the proposed project.

Transportation and traffic impacts of this alternative would be less than the proposed project; however, as with the proposed project, impacts would be less than significant.

Utilities and Service Systems

Phase 1 and Phase 2

This alternative would include the same commercial uses as the proposed project and would reduce residential units from 1,244 to 561. Utility and service demands would be reduced roughly proportionately for wastewater treatment, water supply, solid waste collection and disposal, electricity, and natural gas. As with the proposed project, it is anticipated that impacts would be less than significant without mitigation.

7.7.1 Ability to Reduce Environmental Impacts

In comparison to the proposed project, the Reduced Density Alternative would reduce impacts to air quality, GHG, hazards, noise, public services, recreation, traffic, and utilities and services. Since residential uses still would be included in Phase 1, it would not eliminate the significant impacts associated with resident incompatibility with adjacency to the TowerJazz facility during an interim period. It would reduce these impacts, however, both because of the reduction in units and increased distance to the TowerJazz facility. Impacts to aesthetics, biological resources, cultural resources, hydrology and water quality, and land use and planning would be similar to the proposed project. It would not eliminate any significant impacts of the proposed project, and impacts to population and housing would be considered greater than the proposed project.

7.7.2 Ability to Achieve Project Objectives

With the introduction of 561 residential units and 11,500 square feet of commercial uses as part of a mixed-use residential village, this alternative would meet several of the project's objectives. It would be consistent with several of the goals and policies of the General Plan for the Airport Area, and it would be consistent with the minimum density of 30 du/acres prescribed by the ICDP. It would provide 11,500 square feet commercial use (or potentially more) and therefore, achieve the objective to provide retail commercial to serve local residents, business and visitors. Although fewer than the proposed project, this alternative would provide housing proximate to jobs and supporting services, with pedestrian-oriented amenities and would provide the phased transition from the existing use to the office and residential uses. It would also provide several of the beneficial impacts of the proposed project, including implementing a WQMP. It is unlikely, however, that this alternative would be a viable project that could yield a reasonable return on investment. The project would only develop 260 dwelling units in the first phase and overall would include over eight acres in open space, which would not provide a direct return on investment. It is uncertain whether the return from Phase 1 could support the development costs for Phase 2 or that development returns could support the infrastructure and improvements costs required for the overall project.

7.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the "environmentally superior alternative" when significant environmental impacts result from the proposed project. In cases where the "No Project" Alternative is environmentally superior to the proposed project, an environmentally superior development alternative should be identified as well. Table 7-7 summarizes the impacts associated with each alternative as compared to the proposed project. Based on the preceding analysis, the No Project alternative is identified as the environmentally superior alternative. As shown in Table 7-7, the No Project alternative would eliminate each of the significant, unavoidable impacts of the proposed project:

Table 7-7
Summary of Impacts of Alternatives Compared to the Proposed Project

Environmental Impact	Proposed Project	Project Alternatives: No Project Alternative	Hotel/Office/ Commercial Alternative	Office/Commercial/Residential Alternative	Reduced Density Alternative
Aesthetics	LS	=	=	=	
Air Quality					
Regional Air Quality					<
Air Quality	LS	<	<	<	<
Compatibility	LS	<	<	<	=
Short-Term (Construction)	**S**	**	=	=	
Biological Resources	LS	<	=	=	=
Cultural Resources	LS	<	=	=	=
Geology and Soils	LS	<	=	=	=
Greenhouse Gas Emissions	**LS**	>	<	<	<
Hazards and Hazardous Materials	LS	<*	<*	<	<
Hydrology and Water Quality	LS	>	=	=	=
Land Use and Planning	**S**	<**	>	>	=
Noise and Vibration					
Long-Term	LS	<	<*	<	<
Short-Term (Construction)	**S**	<**	=	=	=
Population and Housing	LS	>	>	=	>
Public Services	LS	<	<	<	<
Recreation		<	<	<	<
Transportation/Traffic					
Long-Term	LS	=	=	<	<
Short-Term (Construction)	LS	<	=	=	=
Utilities and Service Systems	LS	>	<	<	<

< Impacts would be less than those of the proposed project
> Impacts would be greater than those of the proposed project
= Impacts would be similar to the proposed project
LS Less than Significant Impact
S Significant Impact (if not indicated, impacts could be mitigated to less than significant)
* Eliminates a significant impact prior to mitigation (e.g., project impact is mitigated to less than significant for proposed project, is less than significant without mitigation for alternative)
** Eliminates a significant, unavoidable impact

- Construction-related air quality impacts
- Potential inconsistency with the AELUP (pending consistency finding by ALUC)
- Construction-related noise impacts

Of the development alternatives, the Hotel/Office/Commercial Alternative is identified as the environmentally superior alternative. Because this alternative would eliminate residential uses in Phase 1, it would eliminate the significant impacts associated with resident adjacency to the TowerJazz facility, an interim condition which would last between 6 and 12 years. Although mitigated to less than significant under the proposed project, the following impacts would be significant prior to mitigation:

- Operational noise impacts to Phase 1 residences related to 24-hour operation of TowerJazz
- Compliance with CFC 2704.1.1 (amendment), which prohibits use or storage of any extremely hazardous substance equal to or greater than disclosable amounts adjacent to residential uses.
- Potential exposure to hazardous materials during Phase 2 development related to site groundwater and soil contamination of TowerJazz site

Additionally, this would eliminate the following impact of the project on the TowerJazz facility:

- Phase 1 construction-related vibration impacts to sensitive TowerJazz equipment

Each of these impacts, however, would be mitigated to less than significant under the proposed project. None of the development project alternatives were determined to eliminate any of the significant, unavoidable impacts of the proposed project.

Table 7-8, *Alternatives Ability to Achieve Project Objectives* provides a comparison of the ability of each alternative to achieve the project objectives.

Table 7-8
Alternatives Ability to Achieve Project Objectives

Project Objective	Proposed Project	Hotel/Office/ Commercial Alternative	Office/ Commercial/ Residential Alternative	Reduced Density Alternative
Implement the goals and policies that the Newport Beach General Plan has established for the Airport Area and the Integrated Conceptual Plan Development Plan.	Yes	No	No	Yes
Develop a mixed-use residential village characterized by a diversity of building and housing types that is consistent with the prescribed 30 dwelling unit per net acre minimum density for the 25.05 acre project site.	Yes	No	No	Yes
Develop up to 11,500 square feet of retail commercial uses to serve local residents, businesses and visitors.	Yes	Yes	Yes	Yes
Provide housing in close proximity to jobs and supporting services, with pedestrian-oriented amenities that facilitate walking and enhance livability.	Yes	No	Yes	Yes
Integrate neighborhood parks inter-connected by pedestrian walkways to encourage a sense of community.	Yes	Yes	Yes	Yes
Develop an attractive, viable project that yields a reasonable return on investment.	Yes	Maybe	Unlikely	Unlikely
Provides for the phased transition from existing industrial and office uses to a mixed-use residential village.	Yes	No	Yes	Yes
Provide beneficial site and area-wide improvements including implementing a Water Quality Management Plan.	Yes	Yes	Yes	Yes

8. Impacts Found Not to Be Significant

California Public Resources Code Section 21003 (f) states: "…it is the policy of the state that…[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that "[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project," and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." The Guidelines allow use of an Initial Study to document project effects that are less than significant (Guidelines Section 15063[a]). Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant, and were therefore not discussed in detail in the Draft EIR.

8.1 ASSESSMENT IN THE INITIAL STUDY

The Initial Study prepared for the proposed project in December 2011 determined that impacts listed below would be less than significant. Consequently, they have not been further analyzed in this DEIR. Please refer to the Initial Study in Appendix A for an explanation of the basis of these conclusions. Impact categories and questions below are summarized directly from the CEQA Environmental Checklist, as contained in the Initial Study.

Table 8-1
Impacts Found Not to Be Significant

Environmental Issues	*Initial Study Determination*
I. AESTHETICS. Would the project:	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less Than Significant Impact
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact

Table 8-1
Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact
IV. BIOLOGICAL RESOURCES. Would the project:	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	No Impact
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Less Than Significant Impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	No Impact
VI. GEOLOGY AND SOILS. Would the project:	
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	No Impact
iv) Landslides?	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:	
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Less Than Significant Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	Less Than Significant Impact
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	Less Than Significant Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less Than Significant Impact

Table 8-1
Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Less Than Significant Impact
IX. HYDROLOGY AND WATER QUALITY. Would the project:	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	Less Than Significant Impact
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	No Impact
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	No Impact
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	No Impact
j) Inundation by seiche, tsunami, or mudflow?	No Impact
X. LAND USE AND PLANNING. Would the project:	
a) Physically divide an established community?	No Impact
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	No Impact
XI. MINERAL RESOURCES. Would the project:	
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?	No Impact
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	No Impact
XIII. POPULATION AND HOUSING. Would the project:	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	No Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	No Impact
XV. RECREATION.	
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	Less Than Significant Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Less Than Significant Impact
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Less Than Significant Impact
e) Result in inadequate emergency access?	Less Than Significant Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:	
g) Comply with federal, state, and local statutes and regulations related to solid waste?	No Impact

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9. *Significant Irreversible Changes Due to the Proposed Project*

Section 15126.2(c) of the CEQA Guidelines requires that an Environmental Impact Report (EIR) describe any significant irreversible environmental changes that would be caused by the proposed project should it be implemented. Specifically, the CEQA Guidelines state:

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highways improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The following are the significant irreversible changes that would be caused by the proposed project, should it be implemented:

- Implementation of the proposed project would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources, human resources, and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels. Operation of the proposed project would require the use of natural gas and electricity, petroleum-based fuels, fossil fuels, and water. The commitment of resources required for the construction and operation of the proposed project would limit the availability of such resources for future generations or for other uses during the life of the project.

- An increased commitment of social services and public maintenance services (e.g., police, fire, schools, libraries, and sewer and water services) would also be required. The energy and social service commitments would be long-term obligations in view of the low likelihood of returning the land to its original condition once it has been developed.

- An increase in project-related vehicle trips would accompany project-related population growth. Over the long term, emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designation for ozone (O_3) and particulate matter ($PM_{2.5}$ and PM_{10}), nonattainment for lead (Los Angeles County only) under the California and National Ambient Air Quality Standards (AAQS), and nonattainment for nitrogen dioxide (NO_2) under the California AAQS

- The project would remove industrial land uses that have been onsite for about 45 years and redevelop the site with mixed uses consisting mainly of residential uses with some retail and commercial uses. Upon project development it is very unlikely that the conversion of industrial land use to residential and commercial land uses would be reversed.

Given the low likelihood that the project site would revert to lower intensity uses or to its original form, the proposed project would generally commit future generations to these environmental changes.

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10. Growth-Inducing Impacts of the Proposed Project

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities which could affect the environment, individually or cumulatively. To address this issue, potential growth-inducing effects will be examined through analysis of the following questions:

- Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

- Would this project result in the need to expand one or more public services to maintain desired levels of service?

- Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

- Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Please note that growth-inducing effects are not to be construed as necessarily beneficial, detrimental, or of little significance to the environment. This issue is presented to provide additional information on ways in which this project could contribute to significant changes in the environment, beyond the direct consequences of developing the land use concept examined in the preceding sections of this DEIR.

Would this project remove obstacles to growth, e.g., through the construction or extension of major infrastructure facilities that do not presently exist in the project area, or through changes in existing regulations pertaining to land development?

Uptown Newport would be built in a developed and highly urbanized area of the City that is adequately served by public infrastructure facilities such as water and wastewater pipelines; drainage; roads; and electrical, natural gas, and telecommunication utilities. As described in Section 5.14, *Utilities and Service Systems*, the proposed project would not require development of major new infrastructure. While the proposed project would modify the existing storm drainage, sewer, water, and wastewater infrastructure onsite and immediately adjacent to the project site along Jamboree Road, improvements are proposed solely to accommodate the proposed project. Additionally, extensions of existing utility facilities from surrounding roadways would provide a sufficient tie-in to the existing utility systems to accommodate the demands of the proposed project at full buildout. Any new infrastructure would not traverse undeveloped or open space land. Therefore, no obstacles to growth would be removed by the proposed project, and the project would not significantly influence future development of the City's Airport Area beyond that which is already allowed in the City's General Plan and Airport Business Area Integrated Conceptual Development Plan (ICDP).

Would this project result in the need to expand one or more public services to maintain desired levels of service?

As described in Chapter 5.11, *Public Services*, the San Ana Unified and Newport Mesa Unified School Districts indicated that the proposed project would necessitate the need to expand existing facilities or build new schools in order to maintain a desired level of service. No other public service agencies consulted during preparation of this DEIR have indicated that the proposed project would necessitate the immediate expansion of their service and facilities in order to maintain desired levels of service. The expansion of public services would primarily be provided to serve the specific project needs, but the increase in school capacity would also likely facilitate services to future growth within the project vicinity.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

During project construction, a number of design, engineering, and construction-related jobs would be created. This would be a temporary condition as each phase is constructed, lasting until project construction is completed, anticipated in 2018 for Phase 1 and 2021 for Phase 2. As described in Chapter 3, *Project Description*, timing for Phase 2 would be contingent on the existing lease of the TowerJazz building, which is currently set to expire in March 2017, but could be extended to as late as March 2027. This would be a direct, growth-inducing effect of the proposed project.

The retail component of the proposed project, approximately 11,500 square feet of neighborhood-serving retail uses, would primarily serve the needs of the project residents, but would also serve the surrounding business uses. As detailed in Section 5.11, *Population and Housing*, development of the proposed project is projected to generate approximately 24 jobs. With the provision of 1,244 residential units, the forecast jobs/housing ratio for the City in year 2035 with development of the project would be reduced from 1.91 to 1.78. As stated in Section 5.11, in comparison to the Orange County and southern California regional jobs/housing ratio projections in year 2035 (1.58 and 1.29, respectively), the City is jobs-rich because of the higher number of jobs compared to household units. Therefore, even with the slight reduction in the City's jobs/housing ratio due to project development, the City would continue to be jobs-rich in comparison to the county and southern California region. Additionally, development of the proposed project would further the objectives of the City's General Plan and the ICDP by providing residential development in the City's Airport Area. New residents of the project would also seek shopping and employment opportunities beyond those opportunities that would be offered within the proposed project. This would represent an increased demand for goods and services in the project area.

Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

The proposed project consists of the development of a master-planned community within the City's Airport Area. The project site has a General Plan land use designation of Mixed-Use Horizontal-2 (MU-H2) and the zoning designation is Industrial Site 1 of the Koll Center Planned Community (PC-15). The General Plan's policies for the Airport Area call for the orderly evolution of this area from a single-purposed business park to a mixed-use district with cohesive residential villages integrated within the existing fabric of the office, industrial, retail, and airport-related businesses. The ICDP calls for the redevelopment of the project site (which encompasses 25 acres) with new residential development (up to 1,244 units) and open space, carefully integrated within the existing office park. Permitted uses in the Industrial Site 1 zoning designation include commercial and light industrial.

As concluded in Section 5.9, *Land Use and Planning*, with the adoption and implementation of a new Planned Community Development Plan (PCDP), the proposed project would carry out the intent of the ICDP and City's General Plan for this portion of the area covered under the ICDP, as the project site would be developed with the mix of residential and neighborhood-serving uses and park space envisioned in and approved under the ICDP and in accordance with the City's General Plan goals and policies and the provisions of the project-specific regulatory plan (i.e., PCDP).

Moreover, no changes to any of the City's building safety standards (i.e., building, grading, plumbing, mechanical, electrical, fire codes) are proposed or required to implement the proposed project. Therefore, the proposed project would not involve a precedent-setting action that would encourage and/or facilitate other activities that could significantly affect the environment.

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11. Organizations and Persons Consulted

CITY OF NEWPORT BEACH

Planning Department

Rosalinh Ung, Associate Planner (Project Manager)
James W. Campbell, Principal Planner
Jaime Murillo, Associate Planner

Public Works Department

John Kappeler, Code and Water Quality Environmental Division Manager
David Keely, Senior Civil Engineer
Tony Brine, City Traffic Engineer

Municipal Operations Department

Kathryne Cho, Junior Engineer

Recreation and Senior Services Department

Sean Levin, Recreation Superintendent

Fire Department

Ron Gamble, Division Chief
Kevin Kitch, Assistant Chief, Life Safety Services
Susan Guzzetta, Fire Prevention Specialist/Plans Examiner

Police Department

William Hartford, Lieutenant

Public Library

Melissa Kelly, Library Support Services Coordinator

PROJECT APPLICANT

Shopoff Management, Inc.

Brian Rupp, Director, Asset Management

PROJECT APPLICANT SUBCONSULTANTS

Community Outreach/Government Relations

Government Solutions, Inc.

Coralee S. Newman, Principal

Architect

MVE & Partners

Kenneth E. Nelmeire, Principal and Director of Planning

Geotechnical Engineer

Ginter & Associates

David. H. Ginter, President

Civil Engineer

Hall & Foreman, Inc.

John C. Hogan, P.E., LEED A.P., C.E.O./Principal

School Planning

Jeanette Justus Associates

Olga Tsiba, Project Manager

Noise

Wilson IHRIG & Associates

James T. Nelson, PH.D., P.E.

Site Assessment

R M Environmental, Inc.

Robert C. Manning, RG/CEG/RCE, Project Manager

PUBLIC SERVICE AND UTILITY PROVIDERS

Newport-Mesa Unified School District

Ara Zareczny, Facilities Analyst

Santa Ana Unified School District

Joe Dixon, Assistant Superintendent of Facilities
Jessica Mears, Facilities Planner

OC Waste & Recycling

Lu Lu Goh, Staff Specialist

Orange County Sanitation District

Daisy Covarrubias, Senior Staff Analyst

Irvine Ranch Water District

Raghavender Joshi, P.E., PMP, Engineer

Southern California Gas Company

Jeanette Garcia, Technical Services Supervisor

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12. *Qualifications of Persons Preparing EIR*

THE PLANNING CENTER|DC&E

JoAnn Hadfield
Principal, Environmental Services

- BS University of Utah, Urban Planning.
- Coursework Completion, Engineering, California State University, San Diego
- Engineer-in-Training Certificate

Bob Mantey
Manager, Noise, Vibration and Acoustics

- BS, Engineering, Harvey Mudd College

Nicole Vermilion
Manager, Air Quality and Greenhouse Gas Services

- MURP, University of California, Irvine
- BA, Environmental Studies, and BS, Ecology and Evolutionary Biology, University of California, Santa Cruz

Cathy Fitzgerald
Senior Engineer, Hazards

- DEnv, Environmental Science & Engineering, University of California, Los Angeles
- MA, Marine Biology, University of California, Santa Barbara
- BA, Biology, University of California, Los Angeles

Cecilia Kim
Associate Designer
Shade/Shadow Analysis

- Master of Urban Planning, University of Southern California
- Master of Engineering, City Planning, Hong-Ik University (Seoul, Korea)
- Bachelor of Engineering, Civil & Urban Engineering, Hong-Ik University

Fernando Sotelo
Senior Planner, Noise, Vibration and Acoustics

- MS, Civil Engineering, University of Southern California
- BS, Naval Engineering, University of Sao Paulo, Brazil
-

Jorge Estrada
Associate Planner

- BS, Urban and Regional Planning, Cal Poly, Pomona
- Certificate in Engineering/Architectural AutoCAD, Cal State Long Beach

Michael Milroy
Associate Planner

- MS, Interdisciplinary Studies: Neuroscience, California State University, Long Beach
- BS, Biological Science California State University, Long Beach

Leah Boyer
Assistant Planner

- MURP, University of California, Irvine
- BA, Conservation Biology and Anthropology; Certificate in Environmental Studies, University of Wisconsin, Madison

Steven Bush
Assistant Scientist

- MS, Chemical Engineering, University of California, Los Angeles
- BS, Chemical Engineering, University of California, Santa Barbara

TECHNICAL CONSULTANTS

Kimley Horn & Associates
Traffic/Circulation

Serine Ciandella, Vice President Associate

Stephen Chang
Transportation Engineer

Cogstone Resources Management, Inc.
Cultural Resources

Sherri Gust
Project Manager

Cadre Environmental
Biological Resources

Ruben Ramirez, Research Biologist

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