

1. Executive Summary

1.1 INTRODUCTION

This draft environmental impact report (DEIR) addresses the environmental effects associated with the implementation of the proposed City of Hope Campus Plan. The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An environmental impact report (EIR) analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision makers. This document focuses on impacts determined to be potentially significant 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 Duarte's CEQA procedures. The City of Duarte, as the lead agency, has reviewed and revised all submitted drafts, technical studies, and reports as necessary to reflect its own independent judgment, including reliance on 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 (air quality, biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, 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. CEQA established six main objectives for an EIR:

1. Disclose to decision makers and the public the significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

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An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is 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. Before approving a proposed project, the lead agency must consider the information in the EIR; determine whether the EIR was 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 significant impacts cannot be avoided.

1.2.1 EIR Format

Chapter 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.

Chapter 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.

Chapter 3. Project Description: A detailed description of the project, including its objectives, its area and location, approvals anticipated to be required as part of the project, necessary environmental clearances, and the intended uses of this EIR.

Chapter 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 local and regional perspectives. These provide the baseline physical conditions from which the lead agency determines the significance of the project's environmental impacts.

Chapter 5. Environmental Analysis: Each environmental topic is analyzed in a separate section that discusses: 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 after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

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

Chapter 7. Alternatives to the Proposed Project: Describes the alternatives and compares their impacts to the impacts of the proposed project. Alternatives include the No Project/No Development Alternative, No Project/Existing General Plan Alternative, and Reduced Intensity Alternative.

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Chapter 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.

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

Chapter 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.

Chapter 11. Organizations and Persons Consulted: Lists the people and organizations that were contacted during the preparation of this EIR.

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

Chapter 13. Bibliography: The technical reports and other sources used to prepare this EIR.

Appendices: The appendices for this document (in PDF format on a CD attached to the front cover) comprise these supporting documents:

- Appendix A: Initial Study/Notice of Preparation (NOP)
- Appendix B: NOP Comments
- Appendix C1: Air Quality and GHG Modeling Data
- Appendix C2: Health Risk Assessment
- Appendix D: Biological Report
- Appendix E1: Cultural Resources Technical Report
- Appendix E2: Paleontological Resources Assessment Report
- Appendix F: Geotechnical Report
- Appendix G: Hazardous Materials Information
- Appendix H1: Hydrology Report
- Appendix H2: Low Impact Development Study
- Appendix I: Noise Modeling Data
- Appendix J1: Transportation Impact Study
- Appendix J2: City of Hope Memorandum
- Appendix J3: Parking Study
- Appendix J4: Parking Demand Rate Memorandum
- Appendix K1: Wastewater Analysis
- Appendix K2: Water Analysis

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- Appendix L: Water Supply Assessment
- Appendix M: Public Services Correspondence

1.3 PROJECT LOCATION

The 116-acre project site is located primarily in the City of Duarte (approximately 89.5 acres), and the remainder is within the City of Irwindale (26.5 acres). Less than one-half acre of the project site is not owned by City of Hope. Figure 3-1, *Regional Location*, shows the project site in the regional context of Los Angeles County. The cities of Duarte and Irwindale are in the eastern portion of the San Gabriel Valley, approximately 16 miles northeast of downtown Los Angeles. The City of Duarte is situated at the base of the San Gabriel Mountains and is bordered by the City of Irwindale to the south, City of Monrovia to the west, City of Bradbury and the Angeles National Forest for the north, and the City of Azusa to the east.

As shown in Figures 3-2, *Local Vicinity*, and 3-3, *Aerial Photograph*, the project site is generally bounded by Duarte Road to the north; Cinco Robles Drive, the Duarte Flood Control Channel, and Buena Vista Street to the west; and the Santa Fe Flood Control Basin to the east and south. The project site encompasses the City of Hope campus and other properties along Cinco Robles Drive. Regional access to the project site is via Interstates 210 and 605 (I-210 and I-605). Local access is provided primarily from Duarte Road, with secondary access provided from Buena Vista Street.

1.4 PROJECT SUMMARY

City of Hope Campus Plan would provide direction for the enhancement and development of the 116-acre project site over a period of approximately 20 years. City of Hope is an independent, nonprofit, comprehensive medical center and research facility. The proposed Campus Plan provides the vision, guidance, and implementation tools to govern the future of the campus. City of Hope endeavors to expand its research and treatment capabilities while accommodating the needs of its patients and their families, faculty, staff, and the community. The proposed Specific Plan is part of City of Hope's commitment to transform the future of medicine.

The proposed Specific Plan contains required elements to encourage a broad range of design solutions to guide development and improvements. The proposed Specific Plan addresses the replacement of existing outdated and/or obsolete buildings with modern facilities, including outpatient (clinic), inpatient (hospital), research, office, industrial, warehouse, and hospitality uses. The Specific Plan also allows the development of parking structures, surface parking lots, internal roadways, pedestrian amenities, landscaping, open space, and other related improvements. Ultimately, City of Hope Campus Plan would create a more walkable and compact campus core that builds upon and enhances existing inpatient and outpatient facilities, research, office, assembly, parking, and open space uses. In addition, the Specific Plan proposes to consolidate modular buildings that are currently dispersed throughout the campus, demolish outdated buildings, and construct new floor area within larger development sites.

The Specific Plan would act as a bridge between Duarte and Irwindale's general plans and campus development activity. Jurisdictions may adopt specific plans by resolution or ordinance. When a specific plan

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is adopted by ordinance, it replaces portions or all of the current zoning regulations for specified parcels and becomes an independent set of zoning regulations that govern use and development of properties within the bounds of that specific plan.

The Specific Plan is proposed to be adopted by ordinance by the Duarte City Council and subsequently by the Irwindale City Council. The Specific Plan will function as the regulatory document for implementing zoning for the entire project site, ensuring the orderly and systematic implementation of those cities' general plans. The Specific Plan would establish the necessary land use plan, development standards, regulations, design guidelines, infrastructure systems, and implementation strategies on which subsequent, project-related development activities would be founded. Upon adoption of the Specific Plan, subsequent project-specific design review plans, detailed site plans, grading and building permits, or any other actions requiring either ministerial or discretionary approvals would be required to demonstrate consistency with the Specific Plan.

There are six residences—located east of Cinco Robles Drive—within the proposed Specific Plan area that are not owned by City of Hope and not part of its campus. Following adoption of the Specific Plan, these residential uses may continue as residential uses. However, no new residential uses are proposed.

The maximum development capacity has been calculated to provide a conservative estimate of potential environmental impacts from full buildout. As shown in Table 1-1, maximum buildout would consist of approximately 2,639,350 square feet of gross development (1,038,500 net new square feet following the proposed demolition of 387,500 square feet of existing structures). The Specific Plan would allow for the demolition of portable or out-of-date structures, including 335,500 gross square feet within the Core Medical District and 52,000 gross square feet in the Infrastructure and Utility District. No buildings would be demolished in the Cultural Amenity District. This would result in the potential for up to 387,500 gross square feet of structures to be demolished.

Table 1-1 Proposed Buildout by Land Use District

Land Use District	Existing Conditions (GSF)	Proposed Demolition (GSF)	Proposed New Buildings (GSF)	Proposed Net New Development (GSF)	Existing With Net New (GSF)
Core Medical (CM) ¹	1,421,417	335,500	1,366,000	1,030,500	2,451,917
Transition Medical (TM)	5,958 ²	0		0	5,958
Cultural Amenity (CA)	40,322	0	0	0	40,332
Infrastructure and Utility (IU)	133,153	52,000	60,000	8,000	141,153
Total³	1,600,850	387,500	1,426,000	1,038,500	2,639,350

Source: City of Hope 2016.

Notes: GSF = Gross Square Feet

¹ Buildout of the RMF District is accounted for in the CM District. The RMF District is intended to allow flexibility for the existing residential units to continue to operate as campus housing for students, faculty, and guests at the campus, or to transition to new uses over time, such as hospitality or open space. This designation is not intended for new development of market-rate, for-sale housing or rental housing that is not part of campus operations.

² The existing development in the TM District consists of four housing units, four of which are rented by graduate students attending City of Hope's Irell & Manella Graduate School of Biological Sciences.

³ Total square footage includes residential uses allowed within the RMF District but does not include parking structure square footage.

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Buildout of the proposed Specific Plan would increase population and employment by approximately 9,393 people (employees, patients and visitors) and 6,474 employees.

A detailed project description, including potential development scenario by phase is provided in Section 3.3.1, *Description of the Project*, of this EIR.

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 impacts determined to be significant and unavoidable for the proposed Specific Plan. The following three alternatives have been determined to represent a reasonable range of alternatives which have the potential to feasibly attain most of the basic objectives of the project but which may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in Chapter 7, *Alternatives to the Proposed Project*, of this DEIR.

- No Project/No Development Alternative
- No Project/Existing General Plan Alternative
- Reduced Intensity Alternative

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 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 greenhouse gas emissions, noise, and traffic were found to be significant and unavoidable. Section 7.8 identifies the environmentally superior alternative.

Table 1-2 provides a summary of square footage and employment buildout figures for each of the three alternatives and the proposed project. This table was developed as a tool to better understand the differences between the proposed project and the alternatives.

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Table 1-2 Alternatives Comparison

	Proposed Campus Plan	No Project/No Development Alternative	No Project/Existing General Plan Alternative ¹	Reduced Intensity Alternative
Square Footage	2,639,350	1,600,850	2,944,670	2,243,448
Employment	6,474	3,633	7,223	5,559
Population ²	9,393	6,448	10,479	8,374

¹ Buildout of the existing general plan was calculated based on the assumption that: 1) For Duarte: 1.5 FAR is allowed with a height limit of 75 feet; 50 percent of the site is developable; and the FAR excludes parking structures (2,874,960 sf); 2) For Irwindale, assumed the existing square footage (69,709 sf); and 3) employees prorated based on square feet.

² Population includes all persons traveling to the project site: employees, patients, visitors, contractors, physicians, and residents.

1.5.1 No Project/No Development Alternative

This alternative evaluates what would occur if the project is not approved, and is based upon existing conditions and available infrastructure. The project site is developed with 1,600,850 square feet of medical and research facilities, landscaped gardens, open spaces, two-lane roadways, drive aisles, and associated parking. Under this alternative, City of Hope would make minor fixes and modification to its aging buildings and support facilities, including repairing outdated utility and service systems over time. Many of the City of Hope buildings are more than 50 years old and reaching the end of their expected life span for this type of construction and use. The electrical, mechanical, and plumbing systems have surpassed a reasonably expected 30-year life span and are costly and difficult to maintain. Under this alternative, no demolition of existing buildings or construction of new medical and research facilities would occur. Compared to the project, this alternative would result in a reduction of 1,038,500 square feet of medical and research uses and 2,841 employees.

1.5.2 No Project/Existing General Plan Alternative

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the “No-Project” Alternative. When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the no-project alternative is the continuation of the plan, policy, or operation into the future. Therefore, under the No Project/Existing General Plan Alternative, the current general plan land uses and zoning would remain in effect. All proposed changes to land uses and boundaries in the Campus Plan area would not occur. Development in accordance with the existing zoning would continue to occur, allowing for a total of 2,944,670 square feet of hospital uses and 7,223 employees. This represents an increase of 305,320 total nonresidential square feet and 749 employees compared to the proposed project. Buildout of the existing general plan was calculated based on the assumption that: 1) For Duarte: 1.5 floor area ratio (FAR) is allowed with a height limit of 75 feet; 50 percent of the site is developable; and the FAR excludes parking structures (2,874,960 sf); 2) For Irwindale, assumed the existing square footage (69,709 sf); and 3) employees prorated based on square feet (see Table 7-1 footnote).

The area of the project site within Duarte (89.5 acres) is designated as Hospital (encompasses the majority of the project site), Single-Family Residential, Medium-Density Residential, High-Density Residential, Research and Development, and Public Facilities in the general plan and zoned H (Hospital), R-1 (One-Family Residential), R-2 (Two-Family Residential), R-4 (Multiple Family Residential High Density), and O (Open

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Space). The area of the project site within Irwindale (26.5 acres) is designated as Industrial/Business Park (IBP), Open Space/Easements (OSE), and Commercial in the general plan and zoned A-1 (Agricultural), M-1 (Light Manufacturing), and C-2 (Heavy Commercial).

1.5.3 Reduced Intensity Alternative

This Reduced Intensity Alternative was selected to avoid or substantially lessen significant unavoidable impacts related to GHG emissions, noise (construction), and traffic. In order to eliminate a significant and unavoidable transportation impact an approximate 25 percent reduction in daily trips would be required, a net increase of 3,565 trips. Based on the trip generation rates established in the traffic analysis (see Appendix J1), the campus population generates 1.85 daily trips per person, which translates to an allowable net increase of 1,926 population (an approximate 35 percent reduction in population compared to the proposed project) (see Table 7-1). This reduction in trips and population would result in a proportional decrease in building square footage of 15 to 25 percent, which would occur proportionally across the campus. This reduction in building square footage and overall intensity would also reduce impacts related to GHG emissions, and noise. Implementation of the Specific Plan provisions would still apply.

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 Specific Plan, the major issues to be resolved include decisions by the lead agency as to:

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

Prior to the preparation of the DEIR, the City of Duarte circulated a Notice of Preparation (NOP) and Initial Study on October 15, 2015 (see Appendix A). Comments received during the initial study's public review period, from October 15, 2015, to November 16, 2015, are in Appendix B. A public scoping meeting was also held on October 19, 2015, at the Duarte Community Center, 1600 Huntington Drive, to determine the concerns of interested parties regarding the environmental analysis. A summary of comments received on

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the NOP are provided in Table 2-1. The table provides references to the sections of the DEIR in which these issues are evaluated. No other areas of controversy are known to the lead agency.

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

Table 1-3 summarizes the conclusions of the environmental analysis contained in this EIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significance after imposition of the mitigation measures is also presented.

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Table 1-3 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
5.1 AESTHETICS			
Impact 5.1-1: Implementation of the Campus Plan would alter the visual appearance and character of the project site.	Potentially Significant	Mitigation Measures AQ-1 and N-1 in Sections 5.2, <i>Air Quality</i> , and 5.10, <i>Noise</i> , respectively, apply.	Less Than Significant
Impact 5.1-2: Implementation of the Campus Plan could cause shade and shadow impacts on surrounding uses.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.1-3: Buildout of the proposed Campus Plan would generate additional light and glare at the project site.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impact	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.2 AIR QUALITY			
Impact 5.2-1: The proposed project would be consistent with the South Coast Air Quality Management District's Air Quality Management Plan.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.2-2: Construction activities associated with the proposed project would not generate short-term emissions in exceedance of SCAQMD'S regional threshold criteria.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.2-3: Long-term operation of the project would not generate additional emissions in exceedance of SCAQMD's regional significance thresholds.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.2-4: Construction of the proposed project during Phase I would exceed the SCAQMD screening-level LST for PM _{2.5} and potentially expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	AQ-1 During construction, the construction contractor shall water open exposed surfaces a minimum of three times per day or apply other soil stabilizers on inactive construction areas consistent with the Best Available Control Measures identified in South Coast Air Quality Management District (SCAQMD) Rule 403 to minimize fugitive dust emissions generated from ground disturbing activities. Prior to issuance to construction permits, the	Less Than Significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>construction contractor shall note the watering and/or soil stabilization requirement on all construction plans submitted to the entity with jurisdiction over the project, i.e., either the City of Duarte, City of Irwindale, and/or Office of Statewide Health Planning and Development.</p>	
<p>Impact 5.2-5: Project-related construction activities could result in potentially significant cancer risk impacts to nearby off-site residences.</p>	<p>Potentially Significant</p>	<p>AQ-2 The project construction contractor(s) shall use construction equipment fitted with Level 3 Diesel Particulate Filters (DPF) for all construction equipment of 50 horsepower or more. Prior to any construction, the construction contractor(s) shall ensure that all construction plans submitted to the entity with jurisdiction over the project, i.e., either the City of Duarte, City of Irwindale, and/or Office of Statewide Health Planning and Development, clearly show the requirement for Level 3 DPF for construction equipment over 50 horsepower. During construction, the construction contractor(s) shall maintain a list of all operating equipment in use on the project site for verification by the entity with jurisdiction over the project, i.e., either the City of Duarte, City of Irwindale, and/or Office of Statewide Health Planning and Development. The construction equipment list shall state the makes, models, and number of construction equipment on site. Equipment shall be properly serviced and maintained in accordance with manufacturer recommendations. The construction contractor(s) shall ensure that all non-essential idling of construction equipment is restricted to five minutes or less in compliance with California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449.</p>	<p>Less Than Significant</p>
<p>Impact 5.2-6: Implementation of the proposed City of Hope Campus Plan would not expose sensitive receptors to substantial pollutant concentrations.</p>	<p>Less Than Significant</p>	<p>No mitigation measures are required.</p>	<p>Less Than Significant</p>
<p>Cumulative Impact</p>	<p>Less Than Significant</p>	<p>No mitigation measures are required.</p>	<p>Less Than Significant</p>
<p>5.3 BIOLOGICAL RESOURCES</p>			
<p>Impact 5.3-1: Implementation of the Campus Plan would not impact habitat for sensitive wildlife or plant species; however, construction noise could impact adjacent sensitive wildlife.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure N-1 in Section 5.10, <i>Noise</i>, applies.</p>	<p>Less Than Significant</p>

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Table 1-3 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
Impact 5.3-2: Implementation of the Campus Plan would not cause the loss of riparian habitats or sensitive natural communities.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.3-3: Implementation of the Campus Plan would not impact jurisdictional waters or wetlands jurisdictional to the Corps, CDFW, or LARWQCB.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.3-4: Tree removal during the course of Campus Plan buildout could cause loss of active bird nests.	Potentially Significant	<p>BIO-1 Prior to issuance of permits for any construction activity, the project applicant shall demonstrate compliance with the federal MBTA and submit required nesting bird surveys to the City of Duarte. Construction outside the nesting season (between September 1st and February 15th) does not require pre-removal nesting bird surveys. If construction is proposed between February 16th and August 31st, a qualified biologist must conduct a nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the project site.</p> <p>The preconstruction survey(s) shall focus on identifying any raptors and/or passerines nests that may be directly or indirectly affected by construction activities. If active nests are documented, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest shall be postponed until the young birds have fledged. A minimum exclusion buffer shall be maintained during construction, depending on the species and location per the discretion of the qualified biologist. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present or that the young have fledged, shall be submitted to the City of Duarte prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a biological monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur. A final report of the findings, prepared by a qualified biologist, shall be submitted to the City of Duarte prior</p>	Less Than Significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		to construction-related activities that have the potential to disturb any active nests during the nesting season. Any nest permanently vacated for the season would not warrant protection pursuant to the MBTA.	
Cumulative Impact	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.4 CULTURAL RESOURCES			
Impact 5.4-1: Buildout of the Campus Plan could impact an identified historic resource.	Potentially Significant	<p>CUL-1 Prior to the issuance of any permits allowing development within the Specific Plan area that involves demolition or alteration to properties (buildings, structures, and landscape areas) that are at least 45 years of age at the time of such activity, and that were not previously identified for evaluation in the 2016 historical resources survey (GPA 2016), the City of Duarte or City of Irwindale, as applicable, shall require the applicant to prepare a Historical Resources Evaluation Report (HRER) to evaluate such properties. The HRER shall be prepared by a qualified architectural historian or historian who meets the Secretary of the Interior’s Professional Qualifications Standards in architectural history or history. The qualified architectural historian or historian shall conduct an intensive-level evaluation in accordance with the guidelines and best practices promulgated by the State Office of Historic Preservation to identify any potential historical resources within the proposed development area. All evaluated properties shall be documented on Department of Parks and Recreation Series 523 Forms. For all properties determined to qualify as potential historical resources, the HRER shall include a discussion of those properties’ character defining features. The character-defining features documented will include site plan features, overall massing, scale, and spatial relationships between buildings and landscaping/circulation corridors, architectural details and design composition, and all contributing materials, features, and finishes. Properties with interiors that were historically accessible to the public will also be evaluated for potential historic significance. The HRER shall be submitted to the City of Duarte or City of Irwindale, as applicable, for review and concurrence.</p> <ul style="list-style-type: none"> Secretary’s Standards Project Review Memorandum: For all properties identified as potential historical resources in the HRER, during the planning phase for the development in the Campus Plan area that may impact such properties (prior to any construction activities), input shall 	Less Than Significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>be sought from a California architectural historian or historic architect meeting the Secretary of the Interior’s Professional Qualifications Standards to ensure that the development complies with the Secretary’s Standards for the Treatment of Historic Properties (Standards). The findings and recommendations of the architectural historian or historic architect shall be documented in a Secretary’s Standards Project Review Memorandum (Memorandum), at the schematic design phase. This Memorandum shall analyze all components of the development for compliance with the Standards. Components to be analyzed shall include direct and indirect changes to historical resources and their setting. Should design modifications be necessary to bring the development into compliance with the Standards, the Memorandum will document those recommendations. The intent of the Memorandum is to ensure that the development complies with the Standards in order to avoid significant adverse direct or indirect impacts to historic resources, such that no further environmental review is required. The Memorandum shall be submitted to the City of Duarte or City of Irwindale, as applicable, for review.</p> <ul style="list-style-type: none"> To avoid impacts to the two historical resources identified in the 2016 historical resources survey (the City of Hope Visitor’s Center and the House of Hope/Temple Beth Hatikvah), any alterations to either property shall comply with the Standards and be carried forward for analysis and documentation through a Secretary’s Standards Project Review Memorandum, as discussed above. No new additions shall be added to these buildings except for any potential changes for complying with applicable accessibility requirements. A minimum 20-foot buffer shall be maintained around the two historical resources. This will preserve the immediate setting and spatial relationships between the properties. No new construction shall be completed between the buildings and open space shall be maintained to preserve their immediate setting. 	
<p>Impact 5.4-2: Buildout of the Campus Plan could impact archaeological resources.</p>	<p>Potentially Significant</p>	<p>CUL-2 Prior to issuance of any permits allowing ground-disturbing activities within the Campus Plan area, the City of Duarte and/or City of Irwindale, as appropriate, shall ensure that an archeologist who meets the Secretary of the Interior’s Standards for professional archaeology has been retained for the project and will be on call during all grading and other significant ground-disturbing</p>	<p>Less Than Significant</p>

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Table 1-3 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
		<p>activities. The Qualified Archaeologist shall ensure that the following measures are followed for the project:</p> <ul style="list-style-type: none"> • Prior to any ground disturbance, the Qualified Archaeologist, or their designee, shall provide Worker Environmental Awareness Protection (WEAP) training to construction personnel regarding regulatory requirements for the protection of cultural (prehistoric and historic) resources. As part of this training, construction personnel shall be briefed on proper procedures to follow should unanticipated cultural resources be made during construction. Workers will be provided contact information and protocols to follow in the event that inadvertent discoveries are made. The WEAP training can be in the form of a video or PowerPoint presentation. Printed literature (handouts) can accompany the training and can also be given to new workers and contractors to avoid the necessity of continuous training over the course of the project. • In the event that unanticipated cultural material is encountered during any phase of project construction, all construction work within 50 feet (15 meters) of the find shall cease and the Qualified Archaeologist shall assess the find for importance. Construction activities may continue in other areas. If, in consultation with the appropriate City, the discovery is determined to not be important, work will be permitted to continue in the area. <ul style="list-style-type: none"> • If a find is determined to be important, additional work may be warranted, or the find can be preserved in place and construction allowed to proceed. • Additional work can include scientific recording and excavation of that portion of the find making the find important. • If excavation of a find occurs, the Qualified Archaeologist shall draft a report within 60 days of conclusion of excavation that identifies the find and summarizes the analysis conducted. The completed report shall be approved by the City and filed with the County and with the South Central Coastal Information Center at California State University, Fullerton. • Excavated finds shall be curated at a repository determined by the 	

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Table 1-3 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
<p>Impact 5.4-3: Buildout of the Campus Plan could impact paleontological resources or a unique geologic feature.</p>	<p>Potentially Significant</p>	<p>Qualified Archaeologist and approved by the City.</p> <p>CUL-3 Prior to the issuance of any permits allowing ground-disturbing activities within the Campus Plan area, the City of Duarte and/or City of Irwindale, as appropriate, shall ensure that a paleontological monitor has been retained for the project. If ground-disturbing activities will exceed a depth of 6 feet below the ground surface, prior to the issuance of grading permits, the City of Duarte and/or City of Irwindale, as appropriate, shall ensure that a qualified paleontologist has been retained for the project. The paleontologist shall prepare a paleontological monitoring program. All grading and other significant ground-disturbing activities more than 6 feet below the ground surface will be monitored by a paleontological monitor. If any evidence of paleontological resources is discovered, the following measures shall be taken:</p> <ul style="list-style-type: none"> • All below-grade work shall stop within a 50-foot radius of the discovery. Work shall not continue until the discovery has been evaluated by a qualified paleontologist. • A qualified paleontologist in coordination with the City shall assess the find(s) and determine if they are scientifically important. If the find(s) are of value then: <ul style="list-style-type: none"> • Scientifically important fossils shall be prepared by the paleontologist and/or his/her designee(s) to the point of identification, identified to the lowest taxonomic level possible, and curated in a museum repository with permanent, retrievable storage. • Significant paleontological resources found shall be preserved as determined necessary by the paleontological monitor. • Excavated finds shall be offered to the Los Angeles County Museum of Natural History or its designee for curation on a first-refusal basis. After which, finds shall be offered to an accredited and permanent scientific institution for the benefit of current and future generations. • Within 60 days of completion of the end of earth-moving activities, the paleontologist shall draft a report summarizing the finds and shall include the inspection period, an analysis of any resources found, and the present repository of the items. 	<p>Less Than Significant</p>

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Table 1-3 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
		<ul style="list-style-type: none"> The paleontologist’s report shall be approved by the City. Any resulting reports shall also be filed with the permanent scientific institution where the resources are curated. 	
Cumulative Impact	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.5 GEOLOGY AND SOILS			
Impact 5.5-1: Project workers, visitors, and structures would be subject to strong ground shaking.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.5-2: Project workers, visitors, and structures would not be subjected to substantial hazards from ground subsidence, or collapsible or expansive soils.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.6 GREENHOUSE GAS EMISSIONS			
Impact 5.6-1: Buildout of City of Hope Campus Plan would generate a substantial increase in GHG emissions compared to existing conditions and would have a significant impact on the environment.	Potentially Significant	GHG-1 Prior to the issuance of building permits for new development projects under the City of Hope Specific Plan, the City of Hope shall adhere to and comply with the following sustainable development features for all components of the project that are not subject to the jurisdiction of the Office of Statewide Health Planning and Development (OSHDP): <ul style="list-style-type: none"> Future Alternative Energy Production, Roof Layout Plan. Building orientation and layout shall be designed to facilitate future alternative energy production on-site. The City of Hope shall provide a roof layout plan that illustrates how future installation of a photovoltaic system could be accommodated, including plans that identify installation of conduit from the roof to the electrical room—or to electrical panels if no electrical room is provided—to accommodate future photovoltaic system or other collector/power generation installation. Energy Efficient Appliances. Projects shall incorporate energy-efficient appliances, such as tankless or solar water heaters and energy-efficient heating and cooling systems. Transit Stop Improvements. Building entrances and pedestrian 	Significant and Unavoidable

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Table 1-3 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
		<p>walkways shall be designed to provide safe and efficient access to nearby public transit stops. Buildings that abut a transit stop shall install a bus pad, turnouts, benches, trash receptacles (and service), shade/shelter, security lighting, bike racks, water features, and/or landscaping. When practical, the bus stop shall be built into the project and be compatible with the development.</p> <ul style="list-style-type: none"> • Alternative Fuel Vehicles. The City of Hope shall provide preferential parking for alternative-fuel vehicles in the parking structures. The alternative-fuel vehicle parking space shall be provided with a sign that identifies the parking space as designated for use by alternative fuel vehicles. Preferential parking spaces shall be as close as possible to the primary entrance without conflicting with parking provided to meet the Americans with Disability Act requirements or preferential parking provided for carpool/vanpools. • Energy Efficiency, Medium Sized Projects (i.e., nonresidential new construction or modifications of 25,000 to 49,999 square feet of gross floor area). At minimum, the City of Hope shall design medium-sized projects to meet the Tier 1 energy performance standard (Section A5.203.1.2.1) of the 2016 California Green Building Standards Code. If there are applicable local or state standards in effect at the time of project development that would provide higher building energy efficiency than the aforementioned CALGreen Tier 1 performance standard, development projects shall meet those local or state standards. • Energy Efficiency, Large Sized Projects (i.e., nonresidential new construction or modifications of 50,000 or more square feet of gross floor area). At minimum, the City of Hope shall design large-sized projects to meet the Tier 2 energy performance standard (Section A5.203.1.2.2) of the 2016 California Green Building Standards Code. If there are applicable local or state standards in effect at the time of project development that would provide higher building energy efficiency than the aforementioned CALGreen Tier 2 performance standard, development projects shall meet those local or state standards. • Energy Efficient Outdoor Lighting. The City of Hope shall provide overnight security and safety lighting or outdoor lighting on timers or motion detection sensors, or otherwise have the capacity to switch to a 	

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Table 1-3 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
		<p>dimmer, less energy-intensive mode during hours of reduced activity.</p> <ul style="list-style-type: none"> Shading, Medium and Large Size Projects. The City of Hope shall require medium- and large-sized projects to incorporate window shading devices into project design. Window shading devices could include any single or combination of elements, such as extended roof overhangs (i.e., greater than 12 inches), window awnings, decorative sail shades, trellises, or similar elements. Nonglare window tinting may, in appropriate circumstances, function as shading. Leadership in Energy and Environmental Design (LEED) Certification. The City of Hope shall design small projects (i.e., nonresidential new construction or modifications of less than 25,000 square feet of gross floor area) and medium projects so that they are built to achieve LEED certification (or its equivalent for design features). The City of Hope shall design large projects so that they are built to achieve LEED Silver compliance (or its equivalent for design features). Heat Island Effect. The City of Hope shall use lighter-colored paving or open-grid paving materials for surface parking areas, or break up large expanses of paved area with shade trees or shade structures, or use light colored roofing materials. All project design features related to the above listed sustainable development features shall be noted on all building plans of future specific projects submitted to the City of Duarte or City of Irwindale, based on the location of the specific project. Adherence to and implementation of all applicable sustainable development features shall be verified by the City of Duarte or City of Irwindale prior to the issuance of a certificate of occupancy. <p>GHG-2 Components of future development projects within the City of Hope Specific Plan that are subject to the jurisdiction of the Office of Statewide Health Planning and Development (OSHDP) shall be required to comply with Mitigation Measure GHG-1 unless the requirements in these two mitigation measures are in direct conflict with the applicable regulations and building code requirements specific to components/facilities under OSHDP jurisdiction.</p>	
Impact 5.6-2: Implementation of the proposed City of Hope Campus Plan would not conflict	Less Than Significant	No mitigation measures are required.	Less Than Significant

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Table 1-3 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
with plans adopted for the purpose of reducing GHG emissions.			
Cumulative Impacts	Potentially Significant	Mitigation Measures GHG-1 and GHG-2 apply.	Less Than Significant
5.7 HAZARDS AND HAZARDOUS MATERIALS			
Impact 5.7-1: Project construction and operations would involve the transport, use, and/or disposal of hazardous materials.	Potentially Significant	HAZ-1 Prior to the initiating any ground-disturbing activities pursuant to the Campus Plan, the project applicant shall prepare and submit a Phase I Environmental Site Assessment (ESA) for the entire Campus Plan area to the City of Duarte and City of Irwindale, to assess the existing environmental conditions of the Campus Plan area and evaluate the potential for contamination to be present. The Phase I ESA shall be prepared by an Environmental Professional in accordance with the American Society for Testing and Materials (ASTM) Standard E 1527.13, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process." Prior to issuance of a grading permit or building permit for new construction in the Campus Plan area, an Environmental Professional shall review the relevant portions of the site-wide Phase I ESA and may visit the individual development site to evaluate whether any recognized environmental conditions (RECs) related to soils or groundwater identified in the Phase I ESA are present at the site. If no RECs are identified for that individual development site, no further assessment or remediation shall be required. If RECs are identified for that individual development site, the project applicant shall take additional action, which shall include either (i) a Phase II subsurface investigation for that site, or (ii) localized soil removal/remediation activities in accordance with all applicable regulatory requirements. If a Phase II subsurface investigation is conducted, soil, soil gas, and/or groundwater sampling shall be performed. If contamination is confirmed at concentrations exceeding applicable regulatory thresholds, the project applicant shall perform a screening level risk assessment to evaluate if remedial actions are necessary. The project applicant will also consider the need to consult with the appropriate regulatory agency (e.g., California Department of Toxic Substances Control, Regional Water Quality Control Board, Los Angeles County Fire Department, etc.). All contaminated soils and/or material encountered that is confirmed by sampling to be hazardous under California or federal law shall be disposed of appropriately at a regulated site and in accordance with applicable laws and regulations prior to the completion of grading. The Phase I ESA conducted pursuant to this Mitigation Measure also shall include an assessment of	Less Than Significant

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Table 1-3 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
		the possible existence of lead-based paint and asbestos-containing materials in the Campus Plan area. Each individual development site that involves demolition activities shall include an inspection for lead-based paint conducted by a licensed or certified lead inspector/assessor and a survey for asbestos-containing materials conducted by a California Certified Asbestos Consultant. Prior to the issuance of a grading permit or a building permits, a report documenting the completion, results, and follow-up remediation on the recommendations, if any, shall be provided to the City of Duarte Community Development Director and/or City of Irwindale Community Development Director, as appropriate, evidencing that all site remediation activities have been completed.	
Impact 5.7-2: The project site is on a list of hazardous materials sites	Potentially Significant	Mitigation Measure HAZ-1 applies.	Less Than Significant
Impact 5.7-3: Implementation of the Campus Plan would not interfere with an adopted emergency response plan or emergency evacuation plan.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.7-4: A designated fire hazard zone in the Santa Fe Flood Control Basin abuts the southeast site boundary. Project buildout would not expose people or structures to substantial wildfire hazards.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.8 HYDROLOGY AND WATER QUALITY			
Impact 5.8-1: Implementation of the Campus Plan would not violate any water quality standards or waste discharge requirements or otherwise degrade water quality.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.8-2: Implementation of the Campus Plan would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there	Less Than Significant	No mitigation measures are required.	Less Than Significant

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Table 1-3 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
would be a net deficit in aquifer volume or a lowering of the local groundwater table.			
Impact 5.8-3: Implementation of the Campus Plan would not substantially alter the existing drainage pattern to result in adverse flooding impacts, create or contribute runoff water that would exceed the capacity of existing or planned stormwater systems, or provide substantial additional sources of polluted runoff.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.8-4: Implementation of the Campus Plan would not expose people or structures to a significant risk of loss, injury, or death involving flooding, as a result of the failure of a levee or dam.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.9 LAND USE AND PLANNING			
Impact 5.9-1: Campus Plan implementation would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.10 NOISE			
Impact 5.10-1: Implementation of the Campus Plan would result in temporary noise increases in the vicinity of construction activities.	Potentially Significant	N-1 Prior to issuance of permits to perform construction, a construction noise mitigation plan shall be prepared, reviewed, and approved by the City of Duarte Community Development Director or the Irwindale Community Development Director, as applicable. The plan shall be implemented during project construction per the following methods: 1. At least 90 days prior to the start of construction activities, residents within 250 feet of the project site shall be notified of the planned construction activities. The notification shall include a brief description of	Significant and Unavoidable

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Table 1-3 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
		<p>the project, the activities that would occur, the duration and hours when construction would occur. The notification should include the telephone number of the City's authorized representative to respond in the event of a vibration or noise complaint.</p> <ol style="list-style-type: none"> 2. At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance to the job site, clearly visible to the public, which contains a contact name and telephone number of the City's authorized representative to respond in the event of a vibration or noise complaint. If the authorized representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City. 3. During the entire active construction period and to the extent feasible, limit construction-related trips (including worker commuting, material deliveries, and debris/soil hauling) from residential areas around the project site. For example, such construction-related trips should maximize site access along Village Road (from either Duarte Road from the north or from Buena Vista Street from the south), while minimizing trips along either Cinco Robles Road (south of Duarte Road) or Buena Vista Street (north of Village Road) since both these segments are adjacent to residential/ school receptors). 4. During the entire active construction period, all heavy construction equipment used on the proposed project shall be maintained in good operating condition, with all internal combustion, engine-driven equipment fitted with intake and exhaust mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped by the manufacturer. 5. During the entire active construction period and to the extent feasible, use electrically powered equipment instead of pneumatic or internal combustion powered equipment, since the former are generally quieter than the latter. For example, operating temporary lighting masts using construction-dedicated power blocks/outlets would be preferable to lighting masts that were powered by an on-board, gasoline-fueled generator. Likewise, electric drills (either battery- or outlet-powered) are generally quieter than air-driven drills. 6. During the entire active construction period and to the extent feasible, all 	

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Table 1-3 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
		<p>stationary noise-generating equipment shall be located as far away as possible from neighboring property lines, onsite sensitive receptors (i.e. hospital and hospitality uses), and the Santa Fe Flood Control Basin (which generally delineates the noise-sensitive biological resources to the southeast of the Specific Plan Area)</p> <p>7. During the entire active construction period and to the extent feasible, limit all internal combustion engine idling both on the site and at nearby queuing areas to no more than five minutes for any given vehicle or machine (as is consistent with state air quality requirements per In-Use Off-Road Diesel Idling Restriction [Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449] and as required by Mitigation Measure AQ-2). Signs shall be posted at the job site and along queuing lanes to reinforce the prohibition of unnecessary engine idling.</p> <p>8. During the entire active construction period and to the extent feasible, the use of noise producing signals, including horns, whistles, alarms, and bells will be for safety warning purposes only. Use smart back-up alarms, which automatically adjust the alarm level based on the background noise level, or switch off back-up alarms and replace with human spotters.</p> <p>9. Erect a temporary noise barrier/curtain between residential receptors that (a) share a boundary with the project site and any project construction zones within 100 feet of the shared boundary and (b) when such a nearby construction zone will use any equipment items rated at 80 dBA or above per FTA Manual Table 12-1. A temporary noise barrier/curtain shall also be placed between a construction zone within 100 feet (or a distance recommended by a qualified biologist) of the southeast boundary and the Santa Fe Flood Control Basin to minimize construction noise impacts to sensitive biological resources in the basin. The temporary sound barrier would block line of sight noise levels to adjacent properties and substantially reduce noise levels at the Santa Fe Flood Control Basin due to its elevation which is lower than the project site. The sound barrier shall have a minimum height of 12 feet and be free of gaps and holes and must achieve a Sound Transmission Class (STC) of 35 or greater. The barrier can be (a) a ¾-inch-thick plywood wall or (b) a hanging blanket/curtain with a surface density or at least 2</p>	

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Table 1-3 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
		<p>pounds per square foot. For either configuration, the construction side of the barrier shall have an exterior lining of sound absorption material with a Noise Reduction Coefficient (NRC) rating of at least 0.7.</p> <p>10. During the entire active construction period and to the extent feasible, high noise-producing activities shall be scheduled so as to minimize disruption at both onsite and offsite sensitive land uses.</p> <p>The above conditions shall be implemented by the construction contractor(s) via a designated health, safety and environmental coordinator or a similar person. The details of the construction noise mitigation plan, including those listed above, shall be included as part of the permit application drawing set and as part of the construction drawing set. Verification shall be performed by the City building inspection staff.</p>	
<p>Impact 5.10-2: Campus Plan implementation would result in long-term operation-related noise that would not exceed local standards.</p>	<p>Less Than Significant</p>	<p>No mitigation measures are required.</p>	<p>Less Than Significant</p>

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Table 1-3 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
<p>Impact 5.10-3: Implementation of the Campus Plan would create short-term groundborne vibration and groundborne noise.</p>	<p>Potentially Significant</p>	<p>N-2</p> <p>Prior to issuance of permits to perform demolition, construction, grading, foundation, and erection activities that would use vibration-producing equipment, a construction vibration mitigation plan shall be prepared, reviewed, and approved by the City of Duarte Community Development Director or the Irwindale Community Development Director, as applicable. The plan shall be implemented during project construction per the following methods:</p> <ol style="list-style-type: none"> 1. Prior to the start of construction activities, the construction contractor shall document the pre-construction baseline conditions by inspecting and reporting on the then-current foundation and structural condition of the buildings and/or structures with ground-based foundations (including pools, hot-tubs, and spas) within 50 feet of any construction site boundaries. Such inspections and documentation may be needed at offsite, private properties. In such cases, the Contractor shall make a good-faith, reasonable effort to contact the owners of these private properties and request their permission to conduct such inspection/documentation efforts (to establish the pre-construction baseline). If such good-faith, reasonable efforts be rejected by any given property owner (or if such contact attempts are met with no cooperation or silence from the property owner), the implementation at such a property shall be considered as not feasible at that given property. 2. During the entire active construction period and to the extent feasible, vibratory rollers shall not be operated within 30 feet of buildings or other structures, and large bulldozers and loaded trucks shall not be operated within 15 feet of buildings or other structures. This measure ensures that vibratory rollers or large bulldozers do not exceed the potential damage threshold and eliminates the source of any potentially significant vibration impact. 3. During the entire active construction period, if any vibration levels cause cosmetic or structural damage to the offsite buildings within 50 feet of the project site and that were previously inspected and documented [per point 1 above], City staff shall immediately issue “stop-work” orders to the construction contractor to prevent further damage. Such cosmetic or structural damage shall include, but not limited to, cracks in walls or ceilings [particularly around doors and windows], sticking/rubbing doors 	<p>Less Than Significant</p>

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Table 1-3 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
		<p>or openable windows, fallen or displaced ceiling tiles, and/or items displaced from shelving. Work shall not restart until the buildings are stabilized and/or preventive measures are implemented to relieve further damage to the building(s).</p> <p>The above conditions shall be implemented by the construction contractor(s) via a designated health, safety and environmental coordinator or a similar person. The details of the construction vibration mitigation plan, including those listed above, shall be included as part of the permit application drawing set and as part of the construction drawing set. Verification shall be performed by the City building inspection staff.</p>	
Cumulative Impacts	Potentially Significant		Significant and Unavoidable
5.11 POPULATION AND HOUSING			
Impact 5.11-1: Implementation of the Campus Plan could result in population growth in the project area.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.11-2: Project implementation could result in the replacement of housing for other uses allowed within the Campus Plan.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.12 PUBLIC SERVICES			
FIRE PROTECTION AND EMERGENCY SERVICES			
Impact 5.12-1: Implementation of the Campus Plan would introduce new structures, workers, patients, and visitors into the LACFD service boundaries. The LACFD estimates that it can serve the completed project with existing firefighting resources in and near the project site.	Less Than Significant	No mitigation measures are required.	Less Than Significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
POLICE PROTECTION			
Impact 5.12-2: Implementation of the Campus Plan would introduce new structures, workers, patients, and visitors into the service area of the LACSD and IPD, thereby increasing the demand on police protection facilities and personnel.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
OTHER SERVICES			
Impact 5.12-3: The proposed project would not generate new residents that would impact school or library facilities or services	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.13 RECREATION			
Impact 5.13-1: Implementation of Campus Plan would generate additional employees that would increase the use of existing park and recreational facilities.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.14 TRANSPORTATION/TRAFFIC			
Impact 5.14-1: Project-related trip generation would impact levels of service for the existing area roadway system.	Potentially Significant	TRAF-1 Prior to the issuance of the first certificate of occupancy for a new building constructed pursuant to the City of Hope Campus Plan, the project applicant shall install signals for the intersections listed below or prepare a signal warrant study pursuant to Caltrans' California Manual on Uniform Traffic Control Devices. If a signal warrant study prepared in coordination with the responsible agency, shows that signalization is warranted, the project applicant shall install the required signal(s). If signalization is not warranted, an updated signal warrant study for each of the unsignalized intersections identified below shall be prepared every five years until project buildout.	Significant and Unavoidable

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>Signal installation and/or signal warrant analyses shall be conducted for the following intersections¹:</p> <ul style="list-style-type: none"> • 8. I-605 Northbound Off-Ramp & Live Oak Avenue • 16. Buena Vista Street & Village Road • 17. I-210 Westbound Off-Ramp & Central Avenue • 19. Village Road & Duarte Road • 22. Circle Road & Duarte Road 	
		<p>TRAF-2 Prior to the issuance of building permits, the project applicant shall make fair-share payments to the City of Irwindale toward the construction of traffic improvements to Avenida Barbosa at Arrow Highway (#6) as follows:</p> <ul style="list-style-type: none"> • Modify the eastbound approach on Arrow Highway to provide a second eastbound left-turn lane within the existing roadway width. • Restriping the approach to change from one left-turn lane and two through lanes into two left-turn lanes and two through lanes. 	
		<p>TRAF-3 Prior to issuance of permits for any construction activity, the project applicant shall prepare a construction management plan. The Construction Management Plan shall be approved by the Cities of Duarte and Irwindale Public Works Department. The construction management plan shall identify construction hours, truck routes, travel patterns for haul routes, staging and parking areas, staggered worker arrival times, and safety procedures for pedestrians and bicyclists. The construction management plan shall prohibit the use of heavy construction vehicles during peak hours; establish requirements for the loading, unloading, and storage of materials on the project site; and establish requirements for the temporary removal of parking spaces, time limits for the reduction of travel lanes, and closing or diversion of pedestrian facilities to ensure the safety of pedestrian and access to local businesses. The plan shall also require the construction contractor to implement the following measures during construction activities, which shall</p>	

¹ Intersections # 16, 17, 19, and 22 meet peak hour signal warrant criteria under the future baseline scenario; intersection #8 meets warrant criteria at a 43 percent net increase in population.

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		be discussed at the pre-grading conference/meeting: <ul style="list-style-type: none"> • A flagman shall be placed at the truck entry and exit from the project site onto Duarte Road and Buena Vista Street to control the flow of exiting trucks. • The preferred haul route to and from the project site shall be Duarte Road, Buena Vista Street (south of Village Road), Avenida Barbosa, and Arrow Highway for inbound and outbound trucks to north I-605. Trucks shall not be permitted to travel along local residential streets. • Deliveries and pick-ups of construction materials shall be scheduled during non-peak travel periods and coordinated to reduce the potential of trucks waiting to load or unload for protracted periods of time. • Access shall remain unobstructed for land uses in proximity to the project site during construction. • In the event of a lane or sidewalk closure, a worksite traffic control plan, shall be implemented to route traffic or pedestrians around any such lane or sidewalk closures. • Coordinate with the Cities and emergency service providers to ensure adequate access is maintained to the project site and neighboring businesses. • Schedule vehicle movements to minimize vehicles waiting off-site and impeding public traffic flow on the surrounding streets. 	
Impact 5.14-2: Project-related trip generation in combination with existing and proposed cumulative development would not result in designated road and/or highways exceeding county congestion management agency service standards.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.14-3: Project circulation improvements would not create hazardous conditions (sharp curves, etc.), potential conflicting uses, and emergency access.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.14-4: The proposed project would not	Less Than Significant	No mitigation measures are required.	Less Than Significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
result in inadequate emergency access.			
Impact 5.14-5: The proposed project complies with adopted policies, plans, and programs for alternative transportation.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Potentially Significant	Mitigation Measure TRAF-1 applies.	Significant and Unavoidable
5.15 TRIBAL CULTURAL RESOURCES			
Impact 5.15-1: Grading activities associated with implementation of the Campus Plan have the potential to encounter tribal cultural resources.	Potentially Significant	Mitigation Measure CUL-2 in Section 5.4, <i>Cultural Resources</i> , applies.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.16 UTILITIES AND SERVICE SYSTEMS			
WASTEWATER TREATMENT AND COLLECTION			
Impact 5.16-1: Wastewater generated by buildout of the proposed Campus Plan would be adequately conveyed by existing infrastructure and adequately treated by the wastewater service provider for the project site.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
WATER SUPPLY AND DISTRIBUTION SYSTEMS			
Impact 5.16-2: Adequate water supply is available to meet water demands of the proposed project; however additional water infrastructure is required to increase groundwater production capacity.	Potentially Significant	USS-1 Prior to issuance of building permits for a new building that increases water demand in the project area, the project applicant shall provide a conditional "will serve" letter from the water provider to the City of Duarte and City of Irwindale, as applicable, evidencing that upon compliance with all rules and regulations of the California Public Utilities Commission (CPUC), and all applicable water provider tariffs on file with the CPUC there will be adequate water supply and/or well capacity to serve the demands of that building. Prior to the issuance of a certificate of occupancy for such a new building, the project applicant shall provide a final "will serve" letter from the water provider	Less Than Significant

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Table 1-3 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
		to the City of Duarte and/or City of Irwindale, as applicable, confirming that all conditions set forth in the conditional "will serve" letter have been satisfied.	
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
SOLID WASTE			
Impact 5.16-3: Existing and proposed facilities would accommodate project-generated solid waste and comply with related solid waste regulations.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.17 ENERGY			
Impact 5.17-1: Existing and planned electricity and natural gas supplies would be able to accommodate project-generated utility demands.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.17-2: The proposed project would not result in inefficient, wasteful and unnecessary consumption of energy.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Cumulative Impacts	Less Than Significant	No mitigation measures are required.	Less Than Significant

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