



# PAVILION PLAZA WEST

## INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

### Lead Agency:

City of Garden Grove  
Community and Economic Development Department  
11222 Acacia Parkway  
Garden Grove, CA 92840

### Project Applicant:

Sterling Organization  
302 Daturta Street, Suite 100  
West Palm Beach, FL. 33401

### Prepared by:

Environment Planning Development Solutions, Inc.  
2 Park Plz., Suite 1120  
Irvine, CA 92614

January 2021

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C	Geotechnical Engineering Report
D	Preliminary Hydrology Report
E	Water Quality Management Plan
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G	Traffic Impact Analysis

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# 1 INTRODUCTION

## 1.1 PURPOSE OF THE INITIAL STUDY

This Initial Study has been prepared in accordance with the following:

- California Environmental Quality Act (CEQA) of 1970 (Public Resources Code Sections 21000 et seq.); and
- California Code of Regulations, Title 14, Division 6, Chapter 3 (State CEQA Guidelines, Sections 15000 et seq.).

Pursuant to CEQA, this Initial Study has been prepared to analyze the potential for significant impacts on the environment resulting from implementation of the proposed project. As required by State CEQA Guidelines Section 15063, this Initial Study is a preliminary analysis prepared by the Lead Agency, the City of Garden Grove, in consultation with other jurisdictional agencies, to determine if a Mitigated Negative Declaration (MND) or an Environmental Impact Report (EIR) is required for the project.

Based on the information herein, the City of Garden Grove determined that an MND is appropriate for the proposed project. This Initial Study/MND informs the City of Garden Grove decision-makers, affected agencies, and the public of potentially significant environmental impacts associated with the implementation of the project. A “significant effect” or “significant impact” on the environment means “a *substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project*” (Guidelines §15382). As such, the document’s intent is to adhere to the following CEQA principles:

- Provide meaningful early evaluation of site planning constraints, service and infrastructure requirements, and other local and regional environmental considerations. (Pub. Res. Code §21003.1)
- Encourage the applicant to incorporate environmental considerations into project conceptualization, design, and planning at the earliest feasible time. (State CEQA Guidelines §15004[b][3])
- Specify mitigation measures for reasonably foreseeable significant environmental effects and commit the City of Garden Grove and the applicant to future measures containing performance standards to ensure their adequacy when detailed development plans and applications are submitted. (State CEQA Guidelines §15126.4)

### **Existing Plans, Programs, or Policies (PPPs)**

Throughout the impact analysis in this Initial Study, reference is made to requirements that are applied to all development on the basis of federal, state, or local law, and Existing Plans, Programs, or Policies currently in place which effectively reduce environmental impacts. Existing Plans, Programs, or Policies are collectively identified in this document as PPPs. Where applicable, PPPs are listed to show their effect in reducing potential environmental impacts. Where the application of these measures does not reduce an impact to below a level of significance, a project-specific mitigation measure is introduced. The City of Garden Grove will include these PPPs along with mitigation measures in the Mitigation Monitoring and Reporting Program (MMRP) for the project to ensure their implementation.

## 1.2 DOCUMENT ORGANIZATION

This IS/MND includes the flowing sections:

### **Section 1.0 Introduction**

Provides information about CEQA and its requirements for environmental review and explains that an Initial Study/MND was prepared by the City of Garden Grove to evaluate the proposed project's potential to impact the physical environment.

### **Section 2.0 Environmental Setting**

Provides information about the proposed project's location.

### **Section 3.0 Project Description**

Includes a description of the proposed project's physical features and construction and operational characteristics.

### **Section 4.0 Discretionary Approvals**

Includes a list of the discretionary approvals that would be required by the proposed project.

### **Section 5.0 Environmental Checklist**

Includes the Environmental Checklist and evaluates the proposed project's potential to result in significant adverse effects to the physical environment.

### **Section 6.0 Document Preparers and Contributors**

Includes a list of the persons that prepared this IS/MND.

## 2 ENVIRONMENTAL SETTING

### 2.1 PROJECT LOCATION

The project site is located at 9852 Chapman Avenue, which is within the northwest portion of the City of Garden Grove. The site is on the south side of Chapman Avenue between Gilbert Street and Brookhurst Street.

Regional access to the project site is provided by State Route (SR) 22 and the Brookhurst Street exit. Local access to the site is provided from Brookhurst Street and Chapman Avenue, which are both arterial roadways. The project site and surrounding area is shown in Figure 1, *Project Location*.

The site is identified by Assessor's Parcel Number 133-111-20 and is located within the Anaheim United State Geological Survey (USGS) 7.5-Minute Quadrangle at an elevation of 88 feet above mean sea level (msl).

### 2.2 EXISTING PROJECT SITE

The project site encompasses approximately 7-acres and is developed with a vacant two-story high 75,890 square foot concrete block retail building that was formerly occupied by a Von's grocery that was developed in 1960 and has been vacant since the mid-2000s. The building is surrounded by asphalt paved drive lanes and parking areas, and associated landscaping. Access to the subject property is to the north from Chapman Avenue. The project site's existing conditions are shown in Figure 2, *Project Vicinity* and Figures 3A and 3B, *Site Photos*.

### 2.3 EXISTING LAND USES AND ZONING DESIGNATION OF THE PROJECT SITE

The project site has a General Plan land use designation of Residential/Commercial Mixed Use 2 (RC2), which allows a maximum Floor Area Ratio (FAR) of 0.50 for non-residential uses and up to 21 dwelling units per acre for residential uses.

The site is zoned as Neighborhood Mixed Use (NMU). Section 9.18.010.020 of the Garden Grove Municipal Code (GGMC) states that the NMU zoning district is intended for neighborhood commercial centers. The zone allows for retail and service commercial businesses and moderate-density residential uses. Stand-alone commercial uses are permitted. Also, residential and commercial uses may be provided together as an integrated mixed-use development.

### 2.4 SURROUNDING GENERAL PLAN AND ZONING DESIGNATIONS

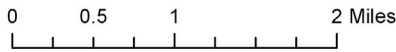
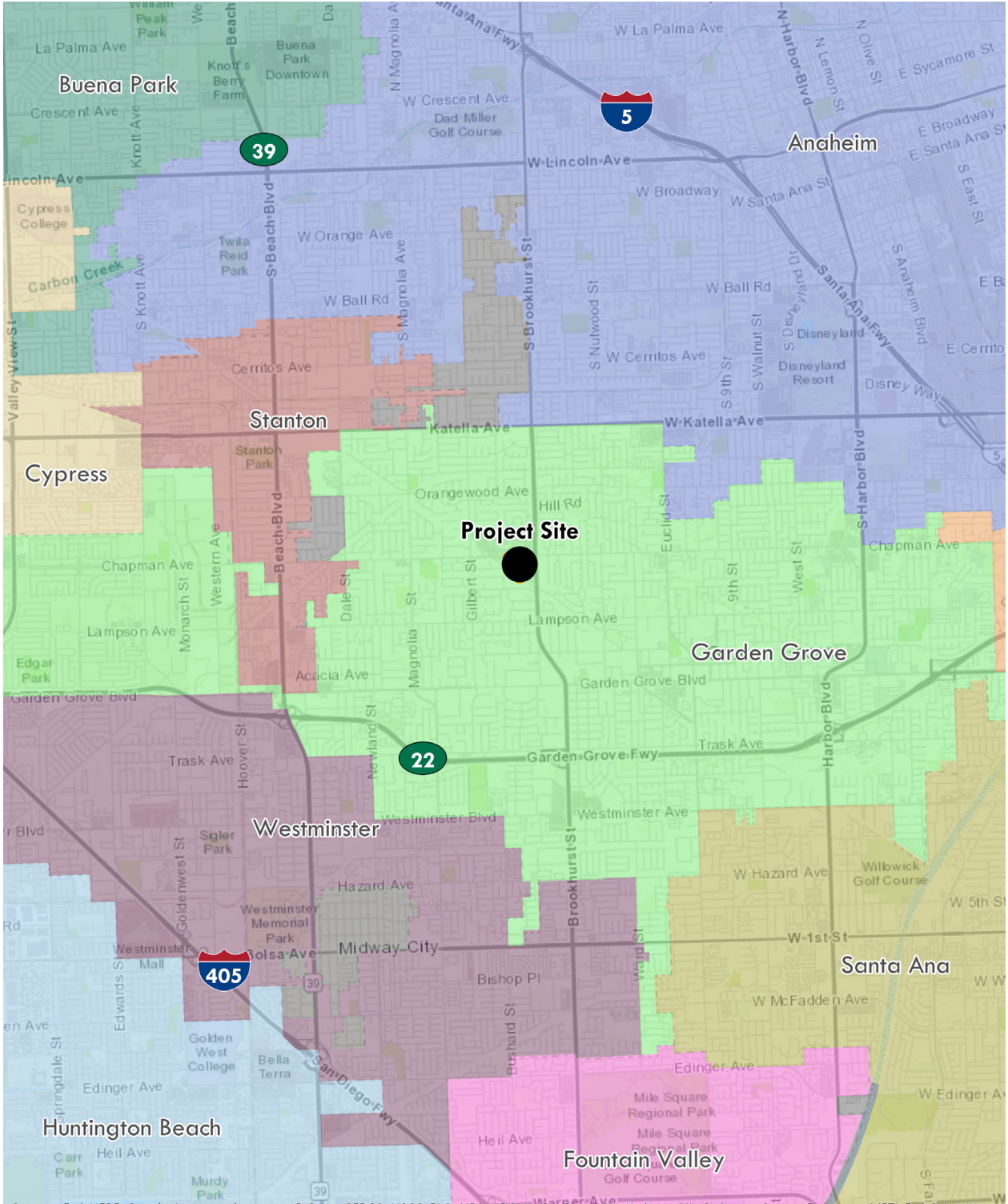
The project site is located within a fully developed and urbanized area. The project site is situated along a portion of Chapman Avenue that is a commercial corridor and includes: Walmart, 24-Hour Fitness, Marshalls, Ross Dress for Less, CVS, PetSmart, Party City, and Regal Cinemas.

Specifically, the site is bound to the north by Chapman Avenue, which is followed by the Promenade retail shopping center. Likewise, areas to the east and west of the site are developed with retail and restaurant uses. The area to the south of the site consists of a vacant railroad easement that is currently being used for vehicle storage. Areas beyond the railroad easement are developed with residential uses. The surrounding land uses are described in Table 1 along with the General Plan Land Use and zoning designations.

**Table 1: Surrounding Existing Land Use and Zoning Designations**

	<b>Existing Land Use</b>	<b>General Plan Designation</b>	<b>Zoning Designation</b>
<b>North</b>	Chapman Avenue, followed by the Promenade shopping center that includes fast food restaurants, retail shops, and movie theaters.	Residential/Commercial Mixed Use 2	Neighborhood Mixed Use (NMU)
<b>West</b>	The Pavilion Plaza shopping center that includes retail shops such as, CVS, Payless Shoes, fitness studios.	Residential/Commercial Mixed Use 2	Neighborhood Mixed Use (NMU)
<b>South</b>	Vacant lot and parking lot (located in former railroad easement) owned by the City of Garden Grove, followed by multi-family residential and a church.	Residential/Commercial Mixed Use 2 followed by Light Commercial (LC)	Neighborhood Mixed Use (NMU) followed by Multi-Family Residential (R3)
<b>East</b>	Sydney Plaza Retail Shopping Center that includes salons and restaurants	Residential/Commercial Mixed Use 2	Neighborhood Mixed Use (NMU)

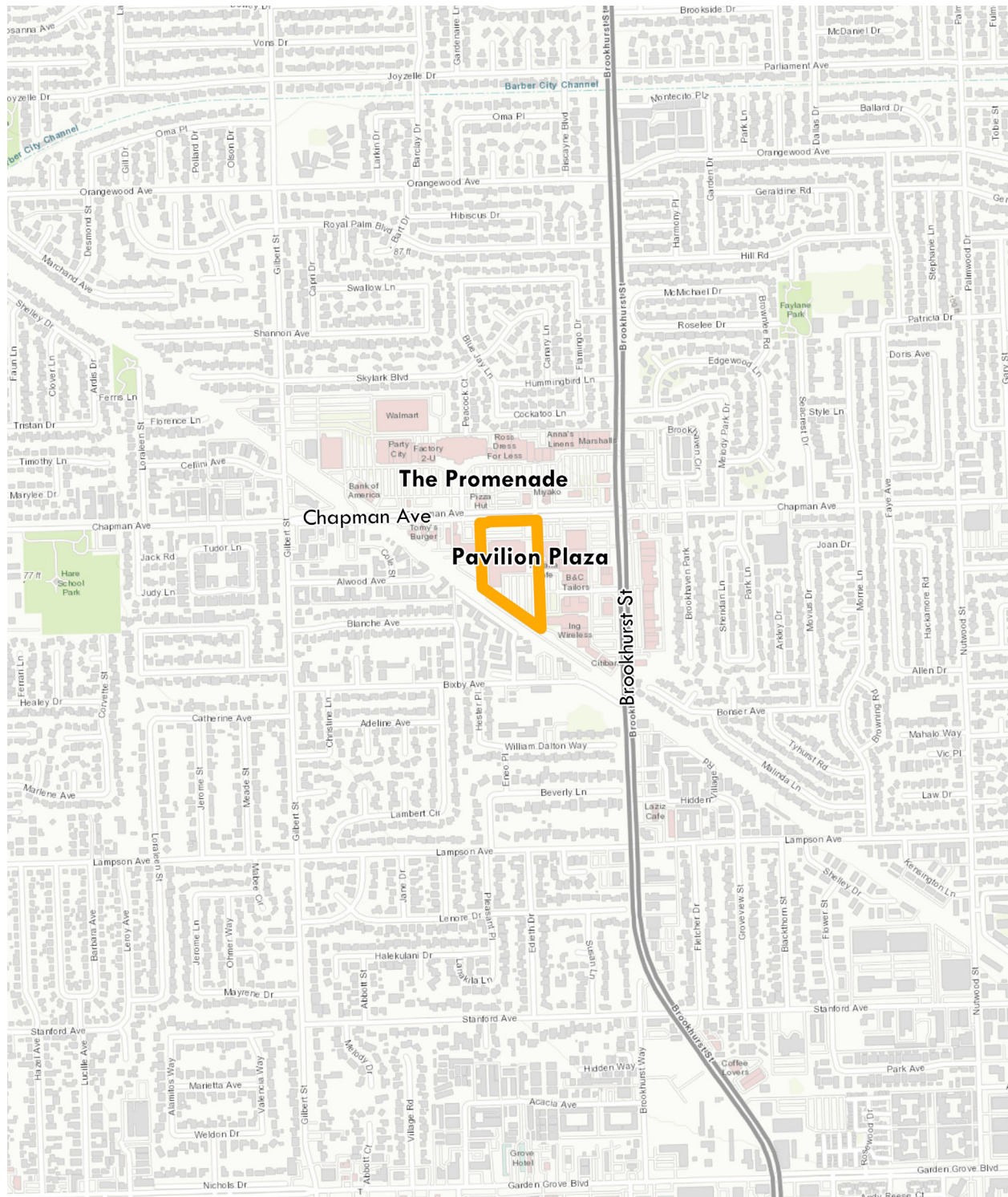
# Regional Location



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# Local Vicinity



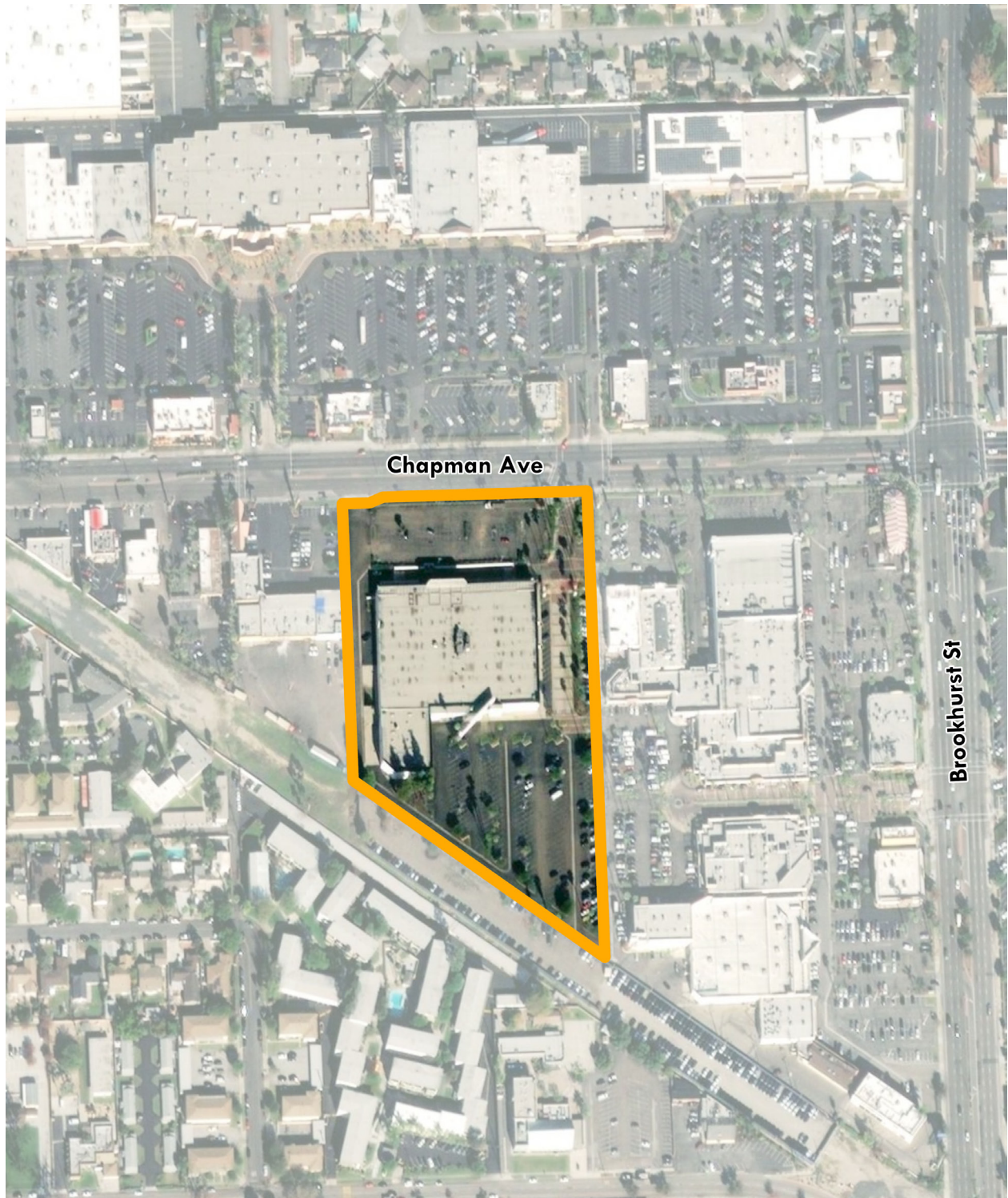
**Project Site**



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# Aerial View



**Project Site**



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### 3 PROJECT DESCRIPTION

#### 3.1 PROJECT OVERVIEW

The proposed project would demolish the existing 75,890 square foot vacant building, pavement, and infrastructure on the project site, and construct a new 65,980 square foot commercial retail/restaurant shopping center. Figure 4, *Conceptual Site Plan*, illustrates the proposed site plan.

#### 3.2 PROJECT FEATURES

##### Development Summary

The proposed project would redevelop the project site with three commercial retail/restaurant building structures. This includes 1) a 51,280 square foot building that would be subdivided for commercial retail/restaurant uses (a Sprouts grocery, an ULTA beauty store, and other retail shops and/or restaurants); 2) a 11,200 square foot building that would be subdivided for retail/restaurant uses; and 3) a 3,500 square foot building drive-thru fast food restaurant. The new commercial retail store and/or restaurant space is detailed in Table 2.

**Table 2: Proposed Commercial Retail and Restaurant Uses**

Proposed Use	Square Footage	Building
Sprouts Grocery	24,600 square feet	Building 1
ULTA Retail Store	10,640 square feet	
Retail/Restaurant uses	16,040 square feet	
Retail/Restaurant uses	11,200 square feet	Building 2
Drive-Thru Restaurant	3,500 square feet	Building 3
<b>Total Square Footage</b>	<b>65,980 square feet</b>	

In addition, the project includes a 1,570 square foot plaza area with patio tables and planters that would be located adjacent to Chapman Avenue and the proposed 11,200 square foot retail/restaurant building. The central portion of the project site would be developed with vehicular circulation, parking, and landscape median areas that are detailed below.

##### Circulation and Parking

As depicted in Figure 4, *Conceptual Site Plan*, the Project site would be accessed by Chapman Avenue by two driveways that would be located adjacent to the easternmost and westernmost boundaries of the project site. Onsite vehicular circulation would be provided by two east-west aligned drive isles that would be 28-feet and 30-feet in width, and by six north-south aligned drive aisles that would be 25-feet in width.

The proposed truck circulation, as shown on Figure 4, directs trucks from Chapman Avenue, around the outside of the proposed parking area to the receiving area for each store. The truck drive aisle around the buildings would range from 28 to 45 feet in width. Additionally, pedestrian circulation would be provided by an 8-foot-wide sidewalk along Chapman Avenue that connects to the onsite pedestrian walkways that would provide connection between each of the proposed buildings.

The project would provide surface parking pursuant to the City's Municipal Code Section 9.18-11, and includes spaces reserved for clean air vehicles and electric vehicle charging stations. In addition, the project includes five bicycle racks at building entrances to encourage bicycle transportation. Table 3 shows the vehicular parking and charging stations proposed by the project.

**Table 3: Proposed Vehicular Parking and Charging Stations**

Type of Parking	Quantity	Percentage
Standard Parking Spots	274	67.15%
Compact Parking Spots	80	19.6%
Handicap Accessible Parking Spots	13	3.18%
Clean Air/Van Pool/Electric Vehicle Spots	9	2.2%
Standard Electric Vehicle Charging Stations	23	5.64%
Standard Accessible Electric Vehicle Charging Stations	1	0.25%
Van Accessible Electric Vehicle Charging Stations	1	0.25%
Accessible EVCS +1	2	0.49%
Half Drive Through Queue	5	1.22%
<b>Total Parking Spots Provided</b>	<b>408</b>	<b>100%</b>

### Architectural Design

The proposed buildings would be one-story and have rooflines that would vary between 24 feet and 36-feet 8-inches in height. The Sprouts store entrance would have the tallest roofline and is the largest store, which anchors the shopping center. Figure 5, *Exterior Elevations*, illustrate the proposed exterior elevations of the proposed buildings.

The proposed retail buildings would be designed with modern architectural elements, which includes multi-level rooflines, varying setbacks and an earth tone color scheme. The buildings would incorporate smooth face and split face concrete block finishes, cement plaster finishes, corrugated metal panels, wood textured metal panels, metal roof lined trim, aluminum framed store front windows, metal canopies, fabric awnings, and logo signage by the retail tenants. The earth tone color scheme includes greys, brown, off-white, and green.

### Landscaping

Landscaping proposed as part of the project would consist of a 15-foot wide (total area 5,018 square feet) landscape buffer along Chapman Avenue and approximately 33,282 square feet of landscaping that would be located throughout the parking area, adjacent to the proposed buildings, and along the railroad right-of-way, as shown on Figure 6, *Landscaping Plan*. The landscaping would consist of ornamental trees, shrubs, and groundcovers, as shown in Figure 8, *Conceptual Landscape Plan*. The landscape plan is consistent with the City's Municipal Code Section 9.16.040.070, which provides landscaping requirements and Municipal Code Chapter 40: Water Conservation Program. In addition, the 15-foot-wide landscaped setback along Chapman Avenue would include two monument signs to identify the shopping center.

### Lighting

Outdoor lighting included as part of the project would be typical of commercial retail/restaurant uses and would consist of wall-mounted lighting as well as pole-mounted lights within the parking area and along the interior drive isles. All of the project's outdoor lighting would be directed downward and shielded to minimize off-site spill. The location of all exterior lighting would comply with lighting standards established in the City's Municipal Code Sections 9.18.100.020 and 9.18.140.070.

### Infrastructure Improvements

#### Roadway

As part of development of the driveways to the site, the project includes improvements to provide a new 8-foot wide sidewalk and 15-foot wide landscape setback area along the Chapman Avenue right-of-way adjacent to the site.

*Water and Sewer*

The proposed project would install onsite water lines that would connect to the existing 6-inch and 16-inch water lines in Chapman Avenue. The project would also install new onsite sewer lines that would connect to the existing 10-inch sewer line in Chapman Avenue.

*Drainage*

The new onsite drainage would convey runoff to underground storm water infiltration tanks that would be installed on the site, which have been designed to capture, infiltrate, and treat flows from the 85<sup>th</sup> percentile storm as required by the Orange County Drainage Area Management Plan (DAMP). During large storm events, flows over the 85<sup>th</sup> percentile storm would discharge into the existing 57-inch storm drain that is adjacent to the railroad alignment and the southern boundary of the project site, which is consistent with the existing drainage pattern on the site.

### 3.3 CONSTRUCTION

Construction activities include demolition of the existing structures, pavement, and the existing utility infrastructure; grubbing, hauling demolition debris off-site, grading, excavation and re-compaction of soils; utility and infrastructure installation; building construction; pavement; and architectural coatings. The site has approximately 3 to 5 feet of fill material across the site that would be removed, recompacted and utilized for engineered fill to support building foundations. Approximately 3,000 cubic yards of soils would be exported off-site.

Construction activities are anticipated to last a total of 14 consecutive months, and would occur within the hours allowable by the City of Garden Grove Municipal Code Section 8.47.060, which states that construction shall occur only between the hours of 7:00 a.m. and 10:00 p.m.

**Table 4: Construction Schedule**

<b>Construction Phase</b>	<b>Working Days</b>
Demolition	20
Site Preparation	10
Grading	20
Building Construction	230
Paving	20
Architectural Coatings	20

### 3.4 DISCRETIONARY APPROVALS AND PERMITS

The following discretionary approval and permits are anticipated to be necessary for implementation of the proposed project:

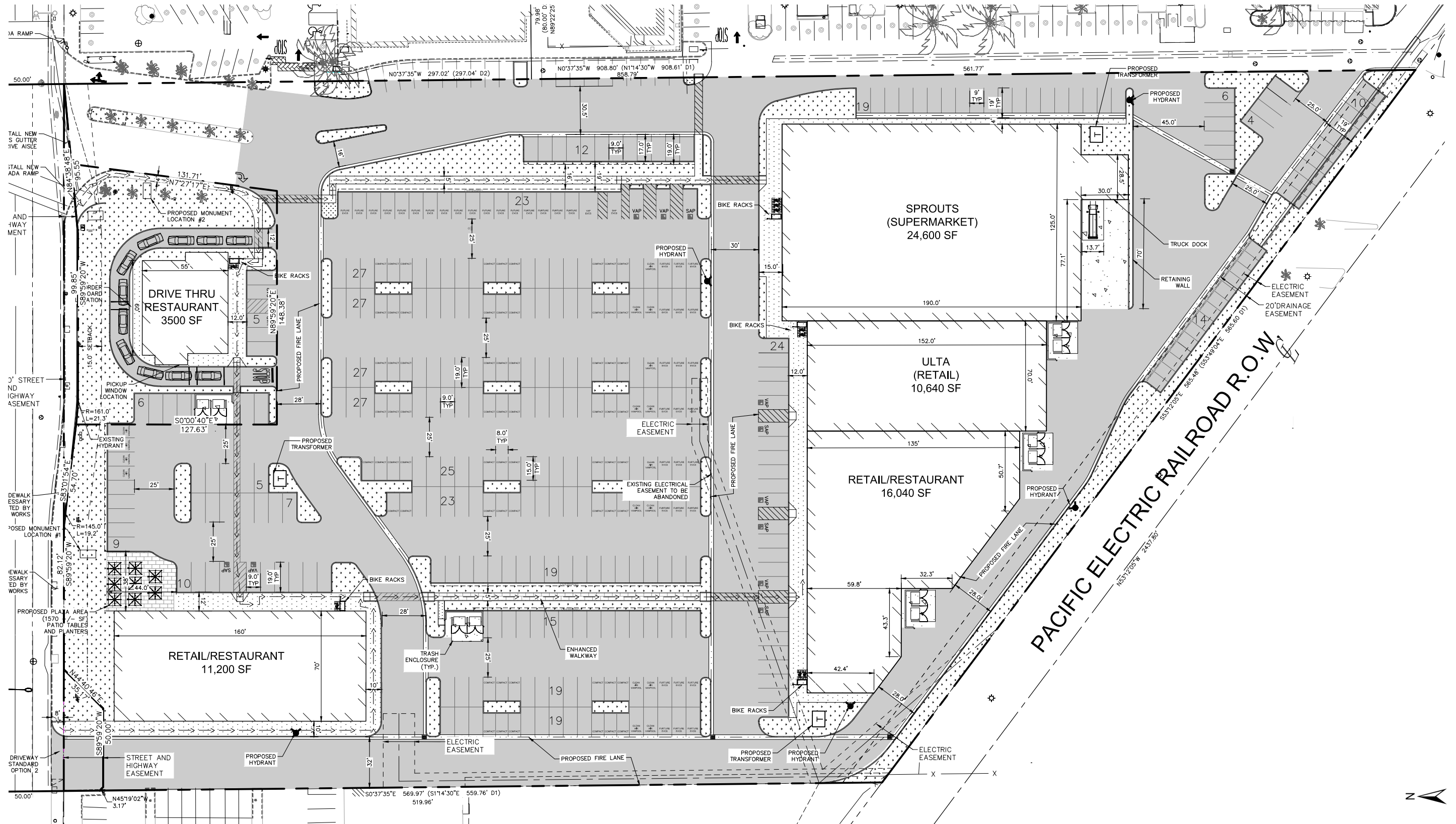
#### **CITY OF GARDEN GROVE**

- Conditional Use Permit for the restaurant drive through.
- Variance to the maximum structure footprint requirement per Municipal Code Section 9.18.090.070.B.
- Site Plan Approval
- Grading Permits
- Building Permit
- Water Quality Management Plan (WQMP) and Storm Water Storm Water Pollutant and Prevention Plan (SWPPP) approval
- Signage Program

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# Conceptual Site Plan



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(IN-LINE MAJOR AND SHOPS)  
NORTH ELEVATION



(SHOPS BLDG 1)  
EAST ELEVATION

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# Conceptual Landscaping Plan



Pavilion Plaza West MND

Figure 6

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## 4 ENVIRONMENTAL CHECKLIST

This section includes the completed environmental checklist form. The checklist form is used to assist in evaluating the potential environmental impacts of the proposed project. The checklist form identifies potential project effects as follows: 1) Potentially Significant Impact; 2) Less Than Significant with Mitigation Incorporated; 3) Less Than Significant Impact; and, 4) No Impact. Substantiation and clarification for each checklist response is provided in Section 5 (Environmental Evaluation). Included in the discussion for each topic are standard condition/regulations and mitigation measures, if necessary, that are recommended for implementation as part of the proposed project.

### 4.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below (☒) would be potentially affected by this project, involving at least one impact that is “Less Than Significant Impact with Mitigation Incorporated” as indicated by the checklist on the following pages.

#### Environmental Factors Potentially Affected

<input type="checkbox"/>	Aesthetics	<input type="checkbox"/>	Agriculture and Forest Resources	<input type="checkbox"/>	Air Quality
<input checked="" type="checkbox"/>	Biological Resources	<input checked="" type="checkbox"/>	Cultural Resources	<input type="checkbox"/>	Energy
<input checked="" type="checkbox"/>	Geology/Soils	<input type="checkbox"/>	Greenhouse Gas Emissions	<input type="checkbox"/>	Hazards and Hazardous Materials
<input type="checkbox"/>	Hydrology/Water Quality	<input type="checkbox"/>	Land Use/Planning	<input type="checkbox"/>	Mineral Resources
<input type="checkbox"/>	Noise	<input type="checkbox"/>	Population/Housing	<input type="checkbox"/>	Public Services
<input type="checkbox"/>	Recreation	<input type="checkbox"/>	Transportation	<input checked="" type="checkbox"/>	Tribal Cultural Resources
<input type="checkbox"/>	Utilities/Service Systems	<input type="checkbox"/>	Wildfire	<input type="checkbox"/>	Mandatory Findings of Significance

**4.2 DETERMINATION**

(To be completed by the Lead Agency) on the basis of this initial evaluation

<input type="checkbox"/>	I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Date

Printed Name

For

**EVALUATION OF ENVIRONMENTAL IMPACTS**

- 1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is



appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

- 4) “Negative Declaration: Potentially Significant Unless Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from “Earlier Analysis,” as described in (5) below, may be cross-referenced).
- 5) Earlier analysis may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(d). In this case, a brief discussion should identify the following:
  - (a) Earlier Analysis Used. Identify and state where they are available for review.
  - (b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
  - (c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project’s environmental effects in whatever format is selected.
- 9) The analysis of each issue should identify: (a) the significance criteria or threshold used to evaluate each question; and (b) the mitigation measure identified, if any, to reduce the impact to less than significance.

## 4.3 ENVIRONMENTAL CHECKLIST QUESTIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>1. AESTHETICS.</b> Except as provided in Public Resources Code Section 21099 would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

**a) Have a substantial adverse effect on a scenic vista?**

**No Impact.** Scenic vistas consist of expansive, panoramic views of important, unique, or highly valued visual features that are seen from public viewing areas. This definition combines visual quality with information about view exposure to describe the level of interest or concern that viewers may have for the quality of a particular view or visual setting. A scenic vista can be impacted in 2 ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or “vista” of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project’s proposed height, mass, and location relative to surrounding land uses and travel corridors.

The City’s General Plan does not identify any scenic vistas within the City, and the project site and surrounding areas are urbanized, have generally flat topography, and do not contain any sensitive scenic vistas. As described in Section 2.4, *Surrounding General Plan and Zoning Regulations*, the project site is located within a completely urban and developed area. Specifically, the Promenade retail shopping center is located across Chapman Avenue from the site. Lands to the east and west of the site are developed with retail and restaurant uses, and the area to the south of the site consists of a vacant railroad easement that is currently being used for vehicle storage. In addition, the project area is generally flat with limited topography and views of and around the project site are limited to the commercial roadway corridor that includes one- and two-story retail commercial buildings, associated signage, parking lots, parked cars, sidewalks, and ornamental landscaping.



Development of the retail commercial uses would be consistent with the existing development along the Chapman Avenue corridor. The height of the buildings would be between 24 feet and 36-feet 8-inches in height, would be consistent with the height of the existing two-story high building on the site and the Promenade retail shopping center that is located across Chapman Avenue from the site and the Pavilion Plaza that is adjacent to the site.

In addition, the project includes an 8-foot-wide sidewalk and a 15-foot-wide landscaped setback along Chapman Avenue, and views along the road corridor would continue to be of retail commercial uses, surface parking lots, and vehicles. The proposed buildings would not project into the street corridor, and corridor views would not be hindered. As there are no identified scenic vistas within the vicinity of the site and views of the development around the project site would remain the same, the project would not result in an adverse effect on a scenic vista. No mitigation measures are required.

**b) Substantially damage scenic resources, including, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**No Impact.** The California Department of Transportation's (Caltrans) Landscape Architecture Program administers the Scenic Highway Program contained in the California Streets and Highways Code, Sections 260–263. State Highways are classified as either Officially Listed or Eligible. There are no officially designated state scenic highways in the vicinity of the project (Caltrans 2020). The closest State-designated scenic highway is a portion of State Route 91 (SR-91), which is located approximately 13 miles from the project site. Therefore, the proposed project does not have the potential to damage resources within a State-designated scenic highway. No mitigation measures are required.

**c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

**Less Than Significant Impact.** The project site is surrounded by developed areas that consist of an arterial roadway and retail commercial that includes one and two-story buildings. As shown on Figure 3, the project site contains a vacant two-story high 75,890 square foot concrete block retail building that was formerly occupied by a Von's grocery store. The building is surrounded by asphalt paved drive lanes, parking areas, and associated landscaping.

As described in the previous response, the site is located within a commercial retail corridor that contains one- and two-story buildings with associated parking, signage, and landscaping. The visual character of the surrounding commercial areas is mixed with older and newer construction and a variety of architectural styles but are mostly modern in theme.

**Construction.** Construction of the project could impact the visual quality of the project area with construction activities and equipment, but this would be temporary (a total of 14 consecutive months as listed in Table 4). During construction, the appearance of the project site would be altered by the removal of existing structure, equipment, paving, and landscaping. Construction activities (i.e. site preparation, grading, and the staging of construction equipment and materials) would be publicly visible to pedestrians and motorists on Chapman Avenue. However, construction-related activities, materials, waste, and staging would be obscured from public view by installing temporary construction fencing. Given the temporary nature of construction activities and the use of construction fencing to reduce potential impacts, visual impacts resulting from construction activities would be

less than significant. No mitigation measures are required.

**Operation.** The project would alter the existing views of the site by removing the vacant building, pavement, and landscaping and developing it to provide a new commercial shopping center. As described in the Project Description and shown in Figure 5, Exterior Elevations, the commercial structures would have a modern contemporary style. The buildings would incorporate multi-level rooflines, smooth face and split face concrete block finishes, cement plaster finishes, corrugated metal panels, wood textured metal panels, metal roof lined trim, aluminum framed store front windows, metal canopies, fabric awnings, and logo signage by the retail tenants. Additionally, the project would have an earth tone color scheme that includes greys, brown, off-white, and green. The project would also provide a consistent landscaping theme throughout the site that includes ornamental trees, shrubs, and ground covers.

Although the project includes one 51,280 square foot linear building and two smaller buildings, the project's structures would have varying roof heights, slanted roofs with decorative tile, building and window recesses and projections, and other architectural features that would reduce the visual scale of the proposed 51,280 square foot structure. Additionally, the proposed structures would be located at a 15-foot minimum setback from the 8-foot-wide sidewalk, providing a visual buffer between the street and the proposed commercial uses. Given the existing visual character of the project site and the proposed structures and architecture, development of the project would alter, but not degrade the existing visual character or quality of the project site and its surroundings.

**General Plan.** The project site has a General Plan land use designation of Residential/Commercial Mixed Use 2 (RC2). According to the General Plan Land Use Element, the RC2 General Plan land use designation allows a Floor-to-Area Ratio (FAR) of up to 0.50 for non-residential uses. The proposed project would develop approximately 65,980 square feet of commercial retail/restaurant uses on the 7.62-acre (331,927 square feet) site, which would result in a FAR of 0.20, and be within the allowable FAR.

**Zoning.** The project site is zoned as Neighborhood Mixed Use (NMU). Section 9.18.010.020(C) of the GGMC states that the NMU zoning district allows for retail and service commercial businesses and is intended to enhance, revitalize, and provide opportunities for new neighborhood commercial centers. This zone implements the General Plan Residential/Commercial Mixed Use 2 land use designation.

The proposed project would redevelop the vacant commercial site to enhance, revitalize, and provide opportunities for a new neighborhood commercial center and includes a Sprouts grocery, ULTA beauty store, a fast-food drive-thru restaurant, and other retail/restaurant uses. As shown in Table AES-1, the proposed project would meet the NMU zoning standards with exception of the 40,000 square foot allowable maximum building footprint. The project requests a variance from this zoning requirement. As described previously the project includes one 51,280 square foot linear building and two smaller buildings. The project's structures would have varying roof heights, slanted roofs with decorative tile, building and window recesses and projections, and other architectural features that would reduce the visual scale of the proposed 51,280 square foot structure. In addition, the building would serve multiple tenants, and having multiple storefronts would reduce the visual scale of the proposed structure. Furthermore, the project would reduce the visual bulk and mass of the existing vacant two-story high 75,890 square foot building on the site and is compatible with the surrounding development, which as described previously, consists of commercial retail uses. Therefore, the proposed variance for the maximum structure footprint would result in a less than significant impact related to scenic quality.

**Table AES-1: Development Standards for the Neighborhood Mixed Use Zone**

<b>Standard</b>	<b>NMU Zone Standard</b>	<b>Proposed Project</b>
Minimum Lot Area	15,000 square feet	304,920 square feet
Minimum Width	75 feet	410 feet
Maximum FAR	0.5	0.20
Front Setback	15 feet	15 feet
Maximum Height	50 feet	36-feet 8-inches
Maximum Structure Footprint	40,000 square feet of contiguous floor area	51,280 square feet
Pedestrian-Oriented Plaza	1,500 square feet	1,570 square feet

Overall, the proposed project would be consistent with development standards required by the RC2 General Plan land use designation and would not conflict with applicable zoning in such a manner that would result in an impact to scenic quality. Furthermore, the project would reduce the visual bulk and scale of the existing building on the site and would increase the visual cohesion between the project site and the surrounding retail commercial area. Hence, the proposed project would not degrade the visual character of the project site and surrounding area; and impacts would be less than significant. No mitigation measures are required.

**d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less Than Significant Impact.** The project site is located within a developed urban area. Existing sources of light in the vicinity of the project site include: street lights, parking lot lighting, building illumination, security lighting, signage lighting, landscape lighting, and lighting from building interiors that pass-through windows.

**Construction.** Although construction activities would occur primarily during daylight hours, construction activities could extend into the evening hours, as permitted by the City's Municipal Code Chapter 8.47, Noise Control. Any construction-related illumination would be used for safety and security purposes and would be shielded and directed toward work activity areas and to prevent light encroachment into adjacent areas. In addition, construction may include nighttime security lighting; however, this would be similar to the existing security lighting on adjacent uses and streetlights. Furthermore, the construction related lighting would be temporary (a total of 14 consecutive months as listed previously in Table 4). Therefore, construction of the project would not create a new source of substantial light that would adversely affect day or nighttime views in the area, and light impacts associated with construction would be less than significant. No mitigation measures are required.

**Operation.** The project would include the provision of nighttime lighting for security purposes throughout the parking areas and around all of the buildings. In addition, new lighting would occur from the lighted monument signs, lighted building signs, and from interior lighting that passes through the storefront windows. Implementation of the project would contribute additional sources to the overall ambient nighttime lighting conditions. However, the project is located within an urban area that includes various sources of nighttime lighting and all outdoor lighting would be hooded or appropriately angled away from adjacent land uses. The project would comply with GGMC Section 9.18.100.020 that states that all onsite lighting shall be stationary and directed away from adjoining properties and public right-of-ways and GGMC Section 9.18.140.070 related to parking area standards, which states that lighting of parking areas shall be designed with automatic

timers (photovoltaic cells) and be directed, positioned, or shielded in such a manner so as not to unreasonably illuminate the window area of nearby residences.

Because the project area is within an already developed area with various sources of existing nighttime lighting, and the project would be required to comply with the City's lighting regulations that would be verified by the City's Building and Safety Division during the permitting process, the lighting increase that would be generated by the project would not adversely affect day or nighttime views in the area. Overall, lighting impacts would be less than significant. No mitigation measures are required.

Reflective light (glare) can be caused by sunlight or artificial light reflecting from finished surfaces such as window glass or other reflective materials. Generally, darker or mirrored glass would have a higher visible light reflectance than clear glass. Buildings constructed of highly reflective materials from which the sun reflects at a low angle can cause adverse glare. However, the project would not use highly reflective surfaces, or glass sided buildings. Although the commercial buildings would contain storefront windows, portions of the windows would be covered by metal canopies, fabric awnings, and logo signage by the retail tenants. Also, the windows would be separated by smooth face and split face concrete block finishes, cement plaster finishes, corrugated metal panels, wood textured metal panels that would limit the potential of glare. In addition, as described previously, onsite lighting would be angled down and shielded, which would avoid the potential on onsite lighting to generate glare. Therefore, the project would not generate substantial sources of glare, and impacts would be less than significant. No mitigation measures are required.

### **Existing Plans, Programs, or Policies**

**PPP AES-1:** As required by the GGMC Sections 9.18.100.020 and 9.18.140.070, lights provided to illuminate any parking facility or paved area shall be designed with automatic timers (photovoltaic cells), shall be maintained, and shall be directed, positioned, or shielded in such a manner so as not to unreasonably illuminate areas beyond the property line.

### **Mitigation Measures**

None.

### **Sources**

California Department of Transportation (Caltrans). 2020. *List of eligible and officially designated State Scenic Highways*. Accessed: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.

City of Garden Grove General Plan. Accessed at: <https://ggcity.org/planning/general-plan>

City of Garden Grove Municipal Code (GGMC). Accessed at: <https://www.qcode.us/codes/gardengrove/>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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## 2. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, 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.** The project site is developed for urban uses and located in an area that is completely developed for urban uses. The project site and vicinity is void of agricultural uses. The California Department of Conservation Important Farmland mapping identifies the project site as Urban and Built-Up land (CDC 2020). No areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be affected by the project or converted to a non-agricultural use. Thus, no impact would occur, and no mitigation measures are required.

**b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

**No Impact.** As described in the previous response, the project area is void of any agricultural uses. The project site is zoned for Neighborhood Mixed Use (NMU) uses and is surrounded by areas zoned as NMU. No agricultural zoning is located in the vicinity of the project area and no parcels within the project vicinity have Williamson Act contracts (DLRP 2020). Therefore, implementation of the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. Thus, no impact would occur, and no mitigation measures are required.

**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.** The project site is developed for urban uses and located in an area that is completely developed for urban uses. The project site and vicinity is void of forest land or timberland. In addition, the project site is zoned as NMU and surrounded by areas zoned as NMU. Therefore, the project would not conflict with existing forest land, timberland, or zoning for forest or timberland uses. Thus, no impact would occur, and no mitigation measures are required.

**d) Result in the loss of forest land or conversion of forest land to non-forest use?**

**No Impact.** As described in the previous response, the project area is void of any forest land and is not zoned for forest uses. Thus, the project would not result in the loss of forest land or conversion of forest land to non-forest uses. No impact would occur, and no mitigation measures are required.

**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.** As described in the previous responses, the project area does not include and is not near any farmland or forest land or land zoned for either farm or forest uses. No other changes to the existing environment would occur from implementation of the proposed project that could result in conversion of farmland to nonagricultural use or forest land to non-forest use. Thus, no impact would occur, and no mitigation measures are required.

**Existing Plans, Programs, or Policies**

None.

**Mitigation Measure**

None.

**Sources**

California Department of Conservation (DOC) Important Farmland Finder, 2020. Accessed: <https://maps.conservation.ca.gov/dlrp/ciff/>

California Department of Conservation Division of Land Resource Protection Williamson Act Maps (DLRP 2020). Accessed at: [http://www.conservation.ca.gov/dlrp/Pages/qh\\_maps.aspx](http://www.conservation.ca.gov/dlrp/Pages/qh_maps.aspx)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>3. AIR QUALITY.</b> Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The discussion below is based on the CalEEMod Emissions Summary, prepared by Vince Mirabella (AQ 2020), included as Appendix A.

**a) Conflict with or obstruct implementation of the applicable air quality plan?**

**Less Than Significant Impact.** The project site is located in the South Coast Air Basin (SCAB), which is under the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD). The SCAQMD and Southern California Association of Governments (SCAG) are responsible for preparing the Air Quality Management Plan (AQMP), which addresses federal and state Clean Air Act (CAA) requirements. The AQMP details goals, policies, and programs for improving air quality in the Basin. In preparation of the AQMP, SCAQMD and SCAG uses regional growth projections to forecast, inventory, and allocate regional emissions from land use and development-related sources.

As described in Chapter 12, Section 12.2 and Section 12.3 of the SCAQMD's CEQA Air Quality Handbook (1993), for purposes of analyzing consistency with the AQMP, if a proposed project would result in growth that is substantially greater than what was anticipated, then the proposed project would conflict with the AQMP. On the other hand, if a project's density is within the anticipated growth of a jurisdiction, its emissions would be consistent with the assumptions in the AQMP, and the project would not conflict with SCAQMD's attainment plans. In addition, the SCAQMD considers projects consistent with the AQMP if the project would not result in an increase in the frequency or severity of existing air quality violations or cause a new violation.

The proposed project is a redevelopment project on a site that has been previously used for a



75,890 square foot Von's grocery store. The proposed project would remove the vacant building and develop 65,980 square feet of new commercial retail/restaurant uses on the site. The project site has a General Plan land use designation of Residential/Commercial Mixed Use 2 (RC2), which allows a FAR of up to 0.50 for non-residential uses. The proposed project would develop approximately 65,980 square feet of commercial retail uses on the 7.62-acre (331,927 square feet) site, which would result in a FAR of 0.20, and be within the allowable FAR. Also, the site is zoned as Neighborhood Mixed Use (NMU). Section 9.18.010.020 of the GGMC states that the NMU zoning district is intended for neighborhood commercial centers and implements the RC2 land use designation. As the project would be consistent with the allowable density of the RC2 land use designation, the project would be consistent with and would not conflict with or obstruct implementation of the AQMP.

In addition, as described in Response b) below, emissions generated by construction and operation of the proposed project would not exceed thresholds (as detailed in Tables AQ-1 through AQ-4), and therefore, the project would not result in an increase in the frequency or severity of existing air quality violations or cause a new violation. Therefore, impacts related to conflict with the AQMP from the proposed project would be less than significant. No mitigation measures are required.

**b) 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?**

**Less Than Significant Impact.** The SCAB has a non-attainment status for not meeting federal ozone standards, federal carbon monoxide standards, and state and federal particulate matter standards. Any development in the SCAB, including the proposed project, could cumulatively contribute to these pollutant violations. The methodologies from the SCAQMD CEQA Air Quality Handbook are used in evaluating project impacts. SCAQMD has established daily mass thresholds for regional pollutant emissions, which are listed in Table AQ-1. The SCAQMD's CEQA Air Quality Handbook methodology describes that any project that result in daily emissions that exceed any of these thresholds would have both an individually (project-level) and cumulatively significant air quality impact. If estimated emissions are less than the thresholds or reduced to below the thresholds with implementation of mitigation, impacts would be considered less than significant.

**Table AQ-1: SCAQMD Regional Daily Emissions Thresholds<sup>1</sup>**

<b>Pollutant</b>	<b>Construction (lbs/day)</b>	<b>Operations (lbs/day)</b>
NO <sub>x</sub>	100	55
VOC	75	55
PM <sub>10</sub>	150	150
PM <sub>2.5</sub>	55	55
SO <sub>x</sub>	150	150
CO	550	550
Lead	3	3

**Construction**

The proposed project would redevelop the project site with a new 65,980 square foot commercial retail/restaurant shopping center. However, the CalEEMod Emissions Summary prepared for the

<sup>1</sup> Regional thresholds are from the SCAQMD Air Quality Significance Thresholds, March 2015.

project assumed a slightly greater build out of 66,800 square feet; and therefore, assumes slightly more construction emissions would result from the project, which provides a conservative analysis of potential impacts.

Construction activities associated with the proposed project would generate pollutant emissions from the following: (1) demolition and removal of the existing onsite improvements and hauling demolition debris off-site; (2) grading and excavation; (3) construction workers traveling to and from project site; (4) delivery and hauling of construction supplies to, and debris from, the project site; (5) fuel combustion by onsite construction equipment; (6) building construction; application of architectural coatings; and paving. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring.

It is mandatory for all construction projects to comply with several SCAQMD Rules, including Rule 403 for controlling fugitive dust, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions from construction activities. Rule 403 requirements include, but are not limited to: applying water in sufficient quantities to prevent the generation of visible dust plumes, applying soil binders to uncovered areas, reestablishing ground cover as quickly as possible, utilizing a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site, covering all trucks hauling soil with a fabric cover and maintaining a freeboard height of 12-inches, and maintaining effective cover over exposed areas. Compliance with Rule 403 was accounted for in the construction emissions modeling for the project. In addition, implementation of SCAQMD Rule 1113 that governs the VOC content in architectural coating, paint, thinners, and solvents, was accounted for in the construction emissions modeling for the project.

As shown in Table AQ-2, CalEEMod results indicate that construction emissions generated by the proposed project would not exceed SCAQMD regional thresholds. Therefore, emissions from construction activities would be less than significant, and no mitigation is required.

**Table AQ-2: Construction Emissions Summary**

Year	Emissions (lbs/day)					
	ROG	NO <sub>x</sub>	CO	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2021 Maximum Daily Emissions	5.4	60.8	28.4	0.1	12.2	3.3
2022 Maximum Daily Emissions	33.8	20.2	21.1	0.0	2.5	1.3
<b>Overall Maximum Daily Emissions</b>	<b>33.8</b>	<b>60.8</b>	<b>28.4</b>	<b>0.1</b>	<b>12.2</b>	<b>7.0</b>
SCAQMD Regional Threshold	75	100	550	150	150	55
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: AQ 2020, Appendix A.

### Operation

As described previously, the proposed project would redevelop the project site with a new 65,980 square foot commercial retail/restaurant shopping center. However, the CalEEMod Emissions Summary prepared for the project assumed a slightly greater build out of 66,080 square feet; and therefore, assumes slightly more operational emissions would result from the project, which provides a conservative analysis of potential impacts.

Operation of the proposed commercial retail/restaurant uses would result in long-term regional emissions of criteria air pollutants and ozone precursors associated with area sources, such as natural gas consumption, landscaping, applications of architectural coatings, and consumer products. However, vehicular emissions would generate a majority of the operational emissions from the

project. Operational emissions associated with the proposed project were modeled using CalEEMod and are presented in Table AQ-3.

**Table AQ-3: Summary of Peak Operational Emissions**

Operational Activity	Emissions (lbs/day)				
	ROG	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Source	1.6	0.0	0.0	0.0	0.0
Energy Source	0.3	2.3	1.9	0.2	0.2
Mobile Source	4.3	14.4	34.4	9.2	2.5
<b>Total Maximum Daily Emissions</b>	<b>6.2</b>	<b>16.7</b>	<b>36.4</b>	<b>9.4</b>	<b>2.7</b>
SCAQMD Regional Threshold	55	55	550	150	55
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: AQ 2020, Appendix A.

As shown, the proposed project would result in long-term regional emissions of the criteria pollutants that would be below the SCAQMD's applicable thresholds. Therefore, operation of the project would not result in a cumulatively considerable net increase of any criteria pollutant impacts, and operational impacts would be less than significant. No mitigation measures are required.

#### **c) Expose sensitive receptors to substantial pollutant concentrations?**

**Less Than Significant Impact.** The SCAQMD's *Final Localized Significance Threshold Methodology* (SCAQMD 2008) recommends the evaluation of localized NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> construction-related impacts to sensitive receptors in the immediate vicinity of the project site. Sensitive receptors can include residences, schools, playgrounds, childcare centers, athletic facilities. Such an evaluation is referred to as a localized significance threshold (LST) analysis. According to the SCAQMD's *Final Localized Significance Threshold Methodology*, "off-site mobile emissions from the project should not be included in the emissions compared to the LSTs" (SCAQMD 2008). SCAQMD has developed LSTs that represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable federal or state ambient air quality standards, and thus would not cause or contribute to localized air quality impacts. LSTs are developed based on the ambient concentrations of NO<sub>x</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> pollutants for each of the 38 source receptor areas (SRAs) in the SCAB. The project site is located in SRA 17, Central Orange County.

#### **Construction**

The localized thresholds from the mass rate look-up tables in SCAQMD's *Final Localized Significance Threshold Methodology* document, were developed for use on projects that are less than or equal to 5-acres in size or have a disturbance of less than or equal to 5 acres daily. As the project site is 7.62-acres and grading would occur over a 20-day period, the CalEEMod Emission Summary (Appendix A) determined that the proposed project would disturb a maximum of 2.5 acres per day.

Table AQ-4 identifies the localized impacts at the nearest receptor location in the vicinity of the project, which is a residence located approximately 100 meters from the southern boundary of the project site. Also, individuals such as workers could be located anywhere along the project boundary and be exposed to air pollutants for durations from 1 to 8 hours. Therefore, a distance of 25 meters was applied to estimate the impacts to worker receptors (25 meters is the shortest distance from source to receptor contained in the SCAQMD emission lookup tables). As shown, project construction-source emissions would not exceed the applicable SCAQMD LSTs for emissions of any criteria

pollutant. Thus, implementation of the project would not result in a localized air quality impact, and no mitigation is required.

**Table AQ-4: Localized Significance Summary of Construction**

Year	Emissions (lbs/day)			
	NO <sub>x</sub>	CO	PM <sub>10</sub>	PM <sub>2.5</sub>
2021 Maximum Daily Emissions	60.8	21.9	10.7	6.9
2022 Maximum Daily Emissions	15.6	16.4	0.8	0.8
<b>Overall Maximum Daily Emissions</b>	<b>60.8</b>	<b>21.9</b>	<b>10.7</b>	<b>6.9</b>
SCAQMD Localized Threshold	149	984	29	8
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

Source: AQ 2020, Appendix A.

Additionally, construction contractors would be required to implement measures to reduce or eliminate emissions by following SCAQMD's standard construction practices (Rules 402 and 403, as included as PPP AQ-1 and PPP AQ-2). Rule 402 requires implementation of dust suppression techniques to prevent fugitive dust from creating a nuisance off site. Rule 403 requires that fugitive dust be controlled with best available control measures so that the presence of such dust does not remain visible in the atmosphere beyond the property line of the emission source. Therefore, sensitive receptors would not be exposed to substantial pollutant concentrations during construction, and impacts would be less than significant. No mitigation measures are required.

**d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**No Impact.** The proposed project would not emit other emissions, such as those generating objectionable odors, that would affect a substantial number of people. The threshold for odor is identified by 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.*

The type of facilities that are considered to result in other emissions, such as objectionable odors, include wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities.

The proposed project would implement commercial retail development that does not involve the types of uses that would emit objectionable odors affecting a substantial number of people. In addition, odors generated by the project are required to be in compliance with SCAQMD Rule 402, which would prevent nuisance odors.

During construction, emissions from construction equipment, architectural coatings, and paving activities may generate odors. However, these odors would be temporary, intermittent in nature, and would not affect a substantial number of people. The noxious odors would be confined to the

immediate vicinity of the construction equipment. Also, the short-term construction-related odors would cease upon the drying or hardening of the odor-producing materials. Therefore, impacts associated with other emissions, such as odors, would not adversely affect a substantial number of people. No mitigation is required.

### **Existing Plans, Programs, or Policies**

**PPP AQ-1: Rule 402.** The project is required to comply with the provisions of South Coast Air Quality Management District (SCAQMD) Rule 402. The project 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.

**PPP AQ-2: Rule 403.** The project is required to comply with the provisions of South Coast Air Quality Management District (SCAQMD) Rule 403, which includes the following:

- All clearing, grading, earth-moving, or excavation activities shall cease when winds exceed 25 mph per SCAQMD guidelines in order to limit fugitive dust emissions.
- The contractor shall ensure that all disturbed unpaved roads and disturbed areas within the project are watered, with complete coverage of disturbed areas, at least 3 times daily during dry weather; preferably in the mid-morning, afternoon, and after work is done for the day.
- The contractor shall ensure that traffic speeds on unpaved roads and project site areas are reduced to 15 miles per hour or less.

**PPP AQ-3: Rule 1113.** The project is required to comply with the provisions of South Coast Air Quality Management District Rule (SCAQMD) Rule 1113. Only “Low-Volatile Organic Compounds” paints (no more than 50 gram/liter of VOC) and/or High Pressure Low Volume (HPLV) applications shall be used.

### **Mitigation Measures**

None.

### **Sources**

Air Quality, Greenhouse Gas, and Energy Impact Analysis. Prepared by Vince Mirabella (AQ 2020).

South Coast Air Quality Management District Final Localized Significance Threshold Methodology (SCAQMD 2008). Accessed: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>4. BIOLOGICAL RESOURCES.</b> Would the project:				
a) Have a substantial adverse 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) 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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Have a substantial adverse 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?**

**No Impact.** The City's General Plan Conservation Element describes on page 10-3 that biological resources are almost nonexistent in the City due to the urban nature of the City and surrounding areas. Consistent with this, the project site is located within an urbanized area and currently developed with a vacant building that used to be a grocery store. Other than the building, the site includes paved surfaces and a few scattered ornamental trees. No endangered, rare, threatened,

or special status plant species (or associated habitats) or wildlife species designated by the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), or California Native Plant Society (CNPS) occur on the site.

The proposed project would redevelop the project site with new commercial retail/restaurant uses, which includes installation of new ornamental landscaping. As no sensitive species or habitats are located within the urban and developed area, implementation of the project would not result in a substantial adverse effect, either directly or through habitat modifications, on any sensitive species, significant impacts would not occur. No mitigation measures are required.

**b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?**

**No Impact.** Riparian habitats are those occurring along the banks of rivers and streams. Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies, known to provide habitat for sensitive animal or plant species, or known to be important wildlife corridors. As described above, the project site is developed and does not contain any natural habitats, including riparian. Additionally, the project is located within a developed urban area. The project site is adjacent to a concrete railroad right-of-way that does not include any riparian habitat or other sensitive natural community. No riparian habitat or other sensitive natural communities occur adjacent to the project site. Additionally, the project site and adjacent areas are not included in any local or regional plans, policies, and regulations that identify riparian habitat or other sensitive natural community. Therefore, no impact would occur, and no mitigation measures are required.

**c) Have a substantial adverse effect on state or federally protected wetlands (including but not limited to, marsh, vernal, pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

**No Impact.** Wetlands are defined under the federal Clean Water Act 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. As detailed previously, the project site is developed; and it does not contain any wetlands. In addition, the adjacent areas, including the concrete railroad right-of-way does not contain wetlands. Therefore, the redevelopment of the project site would not result in impacts to wetlands.

**d) 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?**

**Less than Significant with Mitigation Incorporated.** Wildlife corridors are areas where wildlife movement is concentrated due to natural or anthropogenic constraints and corridors provide access to resources such as food, water, and shelter. Animals use these corridors to move between different habitats, provide avenues for wildlife dispersal, migration, and contact between other populations. The project site is not located within a designated wildlife corridor or linkage. The project site is completely developed and does not provide function for wildlife movement. Additionally, the surrounding area is developed and urban. There are no rivers, creeks, or open drainages near the



site that could function as a wildlife corridor. Thus, implementation of the project would not result in impacts related to wildlife movement or wildlife corridors.

However, the project area contains scattered ornamental trees that could be used for nesting by common bird species that are protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code Sections 3503.5, 3511, and 3515 during the avian nesting and breeding season that occurs between February 1 and September 15. The provisions of the MBTA prohibits disturbing or destroying active nests. Therefore, Mitigation Measure BIO-1 has been included to require that if commencement of demolition, construction, or vegetation clearing occurs between February 1 and September 15, a qualified biologist shall conduct a nesting bird survey no more than 3 days prior to commencement of activities to confirm the absence of nesting birds. With implementation of Mitigation Measure BIO-1, potential impacts to nesting birds would be less than significant.

**e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

**No Impact.** There are no local biological related policies or ordinances, such as a tree preservation policy or ordinance that is applicable to the project. Trees in the public right-of-way in the City are protected under Chapter 11.32 of the GGMC, which regulates the planting, maintenance, and removal of trees in public locations in the City. The project site contains scattered ornamental trees that are on private property and not subject to the City ordinance. Therefore, implementation of the project would not conflict with local policies or ordinances protecting trees and no impact would occur. No mitigation measures are required.

**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.** As previously discussed, the project site is developed and within an urban and developed area. The site is not within the area of an adopted Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. Therefore, implementation of the proposed project would not 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 would occur, and no mitigation measures are required.

**Existing Plans, Programs, or Policies**

The MBTA and the California Fish and Game Code Sections 3503.5, 3511, and 3515 as implemented through Mitigation Measure BIO-1.

**Mitigation Measures**

**Mitigation Measure BIO-1: Migratory Bird Treaty Act.** In the event that vegetation and tree removal activities occur within the active breeding season for birds (February 1–September 15), the project applicant (or their Construction Contractor) shall retain a qualified biologist (meaning a professional biologist that is familiar with local birds and their nesting behaviors) to conduct a nesting bird survey no more than 3 days prior to commencement of construction activities.

The nesting survey shall include the project site and areas immediately adjacent to the site that could potentially be affected by project-related construction activities, such as noise, human activity, and dust, etc. If active nesting of birds is observed within 100 feet (ft) of the designated construction area prior to construction, the qualified biologist shall establish an appropriate buffer around the active nests (e.g., as much as 500 ft for raptors and 300 ft for non-raptors [subject to the recommendations of the qualified biologist]), and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

Prior to commencement of grading activities and issuance of any building permits, the City Community and Economic Development Director, or designee, shall verify that all project grading and construction plans are consistent with the requirements stated above, that pre-construction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

### **Sources**

City of Garden Grove General Plan. Accessed at: <https://ggcity.org/planning/general-plan>

City of Garden Grove Municipal Code. Accessed at: <https://www.qcode.us/codes/gardengrove/>

United States Fish and Wildlife Service (USFWS). 2019. National Wetlands Inventory, 2020. Accessed: <https://www.fws.gov/wetlands/data/mapper.html>

U.S. Fish and Wildlife Service Migratory Bird Treaty Act. Accessed at: <https://www.fws.gov/birds/policies-and-regulations/laws-legislations/migratory-bird-treaty-act.php>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>5. CULTURAL RESOURCES.</b> Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The discussion below is based on the Phase I Environmental Assessment Report (Phase I 2017), included as Appendix B; and the Geotechnical Engineering Report prepared by Terracon Consultants, Inc. (Geo 2020), included as Appendix C.

**a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?**

**No Impact.** The project site does not contain any historical resources. CEQA defines a historical resource as something that meets one or more of the following criteria: (1) listed in, or determined eligible for listing in, the California Register of Historical Resources; (2) listed in a local register of historical resources as defined in Public Resources Code (PRC) Section 5020.1(k); (3) identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (4) determined to be a historical resource by a project's Lead Agency (PRC Section 21084.1 and CEQA Guidelines Section 15064.5[a]).

The California Register defines a "historical resource" as a resource that meets one or more of the following criteria: (1) associated with events that have made a significant contribution to the broad patterns or local or regional history of the cultural heritage of California or the United States; (2) associated with the lives of persons important to local, California, or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values; or (4) has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

There are no documented historic resources on or within the vicinity of the project site. As described in the Phase I Environmental Site Assessment that was prepared for the project site (Phase I 2017), the project site was used for agricultural uses between 1935 and the late 1950s. In 1960, a building permit was issued to construct a new 60,900 square foot retail building; and in 1985, a building permit was issued to construct an 11,000 square foot addition and to remodel the building.

The Phase I Environmental Site Assessment identifies the following previous tenants on the subject property, which are not related to any historic events on the site: Hartfield Stores, Inc. (1960),

Zody's Department Store (1962-1970), Besco Jewelers (1966), Hartfield-Zody's Department Store (1968), H.R.T. Industries (1983), and Vons Companies Inc., Pavilions (1985- mid-2000's).

Although the existing building was constructed 60 years ago, which is of historic era (50 years of age or greater), the building was modified in 1985, and consists of a typical cement block building. The project site is not listed in any register of resources and does not meet the CEQA criteria related to a historic resource. Additionally, the site is not associated with events, persons, or architecture that would meet the California Register criteria of a historic resource. Therefore, the project would not result in impacts to historic resources, and no mitigation is required.

**b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?**

**Less than Significant with Mitigation Incorporated.**

**Construction**

The project site has been disturbed by previous agricultural and development activities. As detailed by the Geotechnical Engineering Report the site has approximately 3 to 5 feet of fill material across the site that would be removed, recompact and utilized for engineered fill. The project would not excavate beyond the limits of the fill material.

However, the Geotechnical Engineering Report describes that fill soil consists of silty sand, which were also identified in the 50-foot-deep borings. Therefore, it is likely that the fill soils are native soils that were excavated and recompact. As a result of the previous onsite soils disturbance, there is reduced potential for the project to impact prehistoric resources. However, undiscovered resources could exist in the previously excavated and compacted fill soils.

Therefore, Mitigation Measure CUL-1 has been included to provide procedures to be followed in the unlikely event that potential archaeological resources are discovered during grading, excavation, or construction activities. Mitigation Measure CUL-1 requires that work in the vicinity of a find be halted until the find can be assessed for significance by a qualified archaeologist to determine the appropriate treatment and documentation of the discovery (California Code of Regulations [CCR], Title 14, Chapter 3, Section 15064.5(f). Mitigation Measure CUL-1 would reduce potential impacts to undiscovered archaeological resources to a less than significant level.

**Operation**

At the completion of project construction, the project would not result in further disturbance of native soils on the project site. Therefore, operation of the project would not result in a substantial adverse change in the significance of an archaeological resource as defined in Section 15064.5 of the CEQA Guidelines. No mitigation would be required.

**c) Disturb any human remains, including those interred outside of formal cemeteries?**

**No Impact.** The project site has not been previously used as a cemetery. Thus, human remains are not anticipated to be uncovered during project construction. In addition, 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. Specifically, California Health and Safety Code Section 7050.5 requires that if human remains are discovered, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of death, and made recommendations concerning the treatment and disposition of the human remains 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 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 significant impacts to human remains would not occur.

### **Existing Plans, Programs, or Policies**

**PPP CUL-1: Human Remains.** In the event that human remains are encountered on the project site, work within 50 ft of the discovery shall cease and the County Coroner shall be notified immediately consistent with the requirements of California Code of Regulations (CCR) Section 15064.5(e). State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. Prior to the issuance of grading permits, the City shall verify that all grading plans specify the requirements of CCR Section 15064.5(e), State Health and Safety Code Section 7050.5, and PRC Section 5097.98, as stated above.

### **Mitigation Measures**

**Mitigation Measure CUL-1: Archaeological Resources.** Construction plans and specifications shall state that in the event that potential archaeological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified archaeologist from the Orange County List of Qualified Archaeologists has evaluated the find to determine whether the find constitutes a “unique archaeological resource,” as defined in Section 21083.2(g) of the California Public Resources Code. Any resources identified shall be treated in accordance with California Public Resources Code Section 21083.2(g). Prior to commencement of grading activities, the Director of the City of Garden Grove Community and Economic Development Department, or designee, shall verify that all project grading and construction plans include specific requirements regarding Public Resources Code Section 21083.2(g) and the treatment of archaeological resources as specified above.

### **Sources**

Geotechnical Engineering Report, April 2020. Prepared by Terracon Consultants, Inc. (Geo 2020).

Phase I Environmental Site Assessment Report (Phase I 2017), Prepared by Partner Engineering and Science, Inc., 2017

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>6. ENERGY.</b> Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The discussion below is based on the CalEEMod Emission Summary prepared by Vince Mirabella (AQ 2020), included as Appendix A.

**a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?**

**Less Than Significant Impact.** As the project site is developed with a 75,890 square foot building that was previously used as a grocery store, it is connected to the existing utility infrastructure, which includes electrical and natural gas services. The Southern California Gas Company provides natural gas to the project site and surrounding area. Additionally, Southern California Edison currently provides electricity services to the project site and surrounding area. The proposed project would install onsite electrical and natural gas infrastructure that would connect to the existing off-site lines.

**Construction**

During construction of the proposed project, energy would be consumed in three general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery truck trips;
2. Electricity associated with providing temporary power for lighting and electric equipment; and
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Based on these uses of energy during construction activities, the proposed buildings and the associated infrastructure would not be expected to result in demand for fuel greater on a per-unit-of-development basis than other development projects in Southern California. Construction does not involve any unusual or increased need for energy. In addition, the extent of construction activities that would occur is limited to a total of 14-months (as listed previously in Table 4), and the demand for construction-related electricity and fuels would be limited to that time frame.

The proposed project would redevelop the project site with a new 65,980 square foot commercial retail/restaurant shopping center. However, the energy modeling prepared for the project assumed a slightly greater build out of 66,080 square feet; and therefore, assumes slightly more energy would be needed for construction of the project. This provides a conservative analysis of potential

impacts. Based on these conservative assumptions, the energy modeling shows that project construction electricity usage over the 14-month construction period is estimated to use 15,118 gallons of diesel fuel, as shown in Table E-1.

**Table E-1: Estimated Construction Equipment Diesel Fuel Consumption**

Activity	Equipment	Project Number	Project Hours per day	Default Horsepower	Default Load Factor	Days of Construction	Total Horsepower-hours	Fuel Rate (gal/hp-hr)	Fuel Use (gallons)
Demolition	Concrete/Industrial Saws	1	8	81	0.73	20	9,461	0.023965	227
	Excavator	3	8	158	0.38	20	28,819	0.019763	570
	Rubber Tired Dozers	2	8	247	0.4	20	31,616	0.020461	647
Site Preparation	Rubber Tired Dozer	3	8	247	0.4	10	23,712	0.020461	485
	Crawler Tractor	4	8	212	0.43	10	29,171	0.022173	647
Grading	Excavators	1	8	158	0.38	20	9,606	0.019763	190
	Graders	1	8	187	0.41	20	12,267	0.021143	259
	Rubber Tired Dozers	1	8	247	0.4	20	15,808	0.020461	323
	Crawler Tractor	3	8	212	0.43	20	43,757	0.022173	970
Building Construction	Crane	1	7	231	0.29	230	107,854	0.014896	1,607
	Forklifts	3	8	89	0.2	230	98,256	0.019105	1,877
	Tractors/Loaders/Backhoes	3	7	97	0.37	230	173,349	0.023965	4,154
	Welders	1	8	46	0.45	230	38,088	0.023965	913
	Generator Set	1	8	84	0.74	230	114,374	0.023965	2,741
Paving	Pavers	2	8	130	0.42	20	17,472	0.021525	376
	Paving Equipment	2	8	132	0.36	20	15,206	0.018334	279
	Rollers	2	8	80	0.38	20	9,728	0.019412	189
Architectural Coating	Air Compressor	1	6	78	0.48	20	4,493	0.023965	108
Fuel Consumption rates derived from the ARB OFFROAD2017 - Orion Web Database								Total	15,118

Source: AQ 2020, Appendix A.

Table E-2 shows that construction workers would use approximately 15,571 gallons of fuel to travel to and from the project site, and haul trucks and vendor trucks would use approximately 15,805 gallons of diesel fuel.

**Table E-2: Estimated Construction Vehicle Trip Related Fuel Consumption**

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Haul Trucks	6,693	0
Vendor Trucks	9,112	0
Worker Vehicles	0	15,571
<b>Construction Vehicles Total</b>	<b>15,805</b>	<b>15,571</b>

Source: AQ 2020, Appendix A.

The combination of the construction equipment fuel listed in Tables E-1 and E-2 would result in a total of 30,923 gallons of diesel fuel and 15,571 gallons of gasoline fuel that would be used during construction of the proposed project, as shown in Table E-3. Construction contractors are required to demonstrate compliance with applicable California Air Resources Board (CARB) regulations governing the accelerated retrofitting, repowering, or replacement of heavy-duty diesel on- and off-road equipment as part of the City's construction permitting process to ensure that equipment would not use fuel inefficiently. In addition, CARB regulations and CCR Title 13, Motor Vehicles, section 2449(d)(3) limits idling times of construction vehicles to no more than 5 minutes, which avoids unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Because project construction activities would comply with these existing regulations, as ensured through the City's permitting process, it would not use fuel in a wasteful,



inefficient, and unnecessary manner. Thus, no impacts related to wasteful, inefficient, or unnecessary construction energy usage would occur, and no mitigation measures are required.

**Table E-3: Total Construction Fuel Consumption**

Construction Source	Gallons of Diesel Fuel	Gallons of Gasoline Fuel
Construction Vehicles	15,805	15,571
Off-road Construction Equipment	15,118	0
Construction Total	30,923	15,571

Source: AQ 2020, Appendix A.

### Operation

Once operational, the project would generate demand for electricity, natural gas, as well as gasoline for motor vehicle trips. Operational use of energy includes the heating, cooling, and lighting of the buildings, water heating, operation of electrical systems and plug-in appliances, and outdoor lighting, and the transport of electricity, natural gas, and water to the residences where they would be consumed. This use of energy is typical for urban development, no additional energy infrastructure would be required to be built to operate the project, and no operational activities would occur that would result in extraordinary energy consumption.

As described previously, the project proposes development of a 65,980 square foot commercial retail/restaurant shopping center. However, the energy modeling prepared for the project assumed a slightly greater build out of 66,080 square feet; and therefore, assumes slightly more energy would be needed for operation of the project and provides for a conservative analysis of energy consumption. As detailed in Table E-4, operation of the proposed project is estimated to result in the annual use of approximately 174,647 gallons of fuel, approximately 2,267,933 kilowatt-hour (kWh) of electricity, and approximately 8,523,043 thousand British thermal units (kBtu) of natural gas.

**Table E-4: Estimated Annual Operational Energy Consumption**

<b>Mobile</b>	Annual Vehicle Miles Traveled: 4,310,442 Gallons of Fuel: 174,647
<b>Electricity</b>	2,267,933 kWh
<b>Natural Gas</b>	8,523,043 kBtu

Source: AQ 2020, Appendix A.

The proposed project would be required to meet the current Title 24 energy efficiency standards, as included in GGMC Section 18.04.010. The City's administration of the Title 24 requirements includes review of design components and energy conservation measures that occurs during the permitting process, which ensures that all requirements are met. Typical Title 24 measures include insulation; use of energy-efficient heating, ventilation and air conditioning equipment (HVAC); solar-reflective roofing materials; energy-efficient indoor and outdoor lighting systems; reclamation of heat rejection from refrigeration equipment to generate hot water; and incorporation of skylights, etc. In complying with the Title 24 standards, impacts to peak energy usage periods would be minimized, and impacts on statewide and regional energy needs would be reduced. Thus, operation of the project would not use large amounts of energy or fuel in a wasteful manner, and no operational energy impacts would occur. No mitigation measures are required.

### **b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?**

**No Impact.** The proposed project would be required to meet the Calgreen energy efficiency standards in effect during permitting of the project, which are included in the GGMC as Section 18.04.010 and herein as PPP E-1. The City's administration of the requirements includes review of design components and energy conservation measures during the permitting process, which ensures that all requirements are met. In addition, the project would not conflict with or obstruct opportunities to use renewable energy, such as solar energy. As such, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would not occur. No mitigation measures are required.

#### **Existing Plans, Programs, or Policies**

**PPP E-1. CalGreen Compliance:** The project is required to comply with the CalGreen Building Code as included in the City's Municipal Code Section 18.04.010 to ensure efficient use of energy. CalGreen specifications are required to be incorporated into building plans as a condition of building permit approval.

#### **Mitigation Measures**

None.

#### **Sources**

CalEEMod Emissions Summary. Prepared by Vince Mirabella (AQ 2020).

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>7. GEOLOGY AND SOILS.</b> Would the project:				
a) Directly or indirectly cause 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The discussion below is based on the Geotechnical Engineering Report prepared by Terracon Consultants, Inc. (Geo 2020), included as Appendix C.

**a) Directly or indirectly cause 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?**

**No Impact.** The project site is not located within a designated Alquist-Priolo Earthquake Fault Zone. As described by the Geotechnical Engineering Report (GEO 2020) prepared for the proposed project, there are no known active faults traversing the site or the City of Garden Grove. Thus, the proposed project would not expose people or structures to potential substantial adverse effects from rupture of a known earthquake fault that is delineated on an Alquist-Priolo Earthquake Fault Zoning Map, and impacts would not occur. No mitigation measures are required.

- ii. **Strong seismic ground shaking?**

**Less Than Significant Impact.** As with all of Southern California, the project site is subject to strong ground motion resulting from earthquakes on nearby faults. The principal seismic hazard that could affect the site is ground shaking resulting from an earthquake occurring along several major active or potentially active faults in southern California. The closest active fault is the Newport-Inglewood Fault Zone that is approximately 6 miles to the southwest of the project site (USGS 2020). Movement along this fault, or other regional faults could result in seismic ground shaking on the project site. The amount of motion expected at the project site can vary from none to forceful depending upon the distance to the fault and the magnitude of the earthquake. Greater movement can be expected at sites located closer to an earthquake epicenter.

However, structures built in the City are required to be built in compliance with the California Building Code (CBC [California Code of Regulations, Title 24, Part 2]), as included in the GGMC in Chapter 18.12 Building Codes and Regulations (and herein as PPP GEO-1), which regulates all building and construction projects within the City and implements a minimum standard for building design and construction that includes specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. The Geotechnical Engineering Report (included as Appendix C) prepared for the project site provides CBC seismic structural design criteria that are specific to the onsite soils and potential seismic ground shaking that includes: excavation, re-compaction, and foundation systems.

Because the project would be required to be constructed in compliance with the CBC and the GGMC, which would be verified through the City's plan check and permitting process and included as PPP GEO-1, the project would result in a less than significant impact related to strong seismic ground shaking. No mitigation measures are required.

- iii. **Seismic-related ground failure, including liquefaction?**

**Less Than Significant Impact.** Soil liquefaction is a phenomenon in which saturated, cohesionless soils layers, located within approximately 50 feet of the ground surface, lose strength due to cyclic pore water pressure generation from seismic shaking or other large cyclic loading. During the loss of stress, the soil acquires "mobility" sufficient to permit both horizontal and vertical movements. Soil properties and soil conditions such as type, age, texture, color, and consistency, along with historical depths to ground water are used to identify, characterize, and correlate liquefaction susceptible soils.

Soils that are most susceptible to liquefaction are clean, loose, saturated, and uniformly graded fine-grained sands that lie below the groundwater table within approximately 50 feet below ground surface. Lateral spreading is a form of seismic ground failure due to liquefaction in a subsurface layer.

The Geotechnical Engineering Report (Geo 2020) for the proposed project, describes soils encountered at the project site generally consisted of sand with varying amounts of silt with interbedded layers of clay with varying amounts of silt and sand to an approximate depth of 78 feet below the ground surface (bgs). Also, the onsite borings identified groundwater at approximately 25.5 feet bgs and that nearby well data indicates that high groundwater in the vicinity of the project site has been recorded at 20 feet bgs.

The Geotechnical Engineering Report included an analysis of the potential effects related to liquefaction, which identified that seismically induced settlement of saturated and unsaturated sands is estimated to range between 3 and 4 inches, and that the differential seismic induced settlement would be approximately 1 inch on the site. In order to reduce the potential liquefaction related settlement, the Geotechnical Engineering Report states that project construction should include removal and re-compaction of the upper 3 feet of the site soils and utilization of post-tensioned slabs or equivalent foundation systems in compliance with the CBC, which would reduce the potential of liquefaction related settlement to a less than significant level.

As described in the previous response, the project would be required to be constructed in compliance with the CBC and the GGMC, as included as PPP GEO-1, which would be verified through the City's plan check and permitting process. Thus, the project would be required to implement re-compaction of soils and foundation systems in compliance with the CBC, and potential impacts related to liquefaction would be reduced to a less than significant level. No mitigation measures are required.

#### iv. **Landslides?**

**No Impact.** Landslides and other slope failures are secondary seismic effects that are common during or soon after earthquakes. Areas that are most susceptible to earthquakes induced landslides are steep slopes underlain by loose, weak soils, and areas on or adjacent to existing landslide deposits.

As described above, the project site is located in a seismically active region subject to strong ground shaking. However, the project site is flat and does not contain any hills or any other areas that could be subject to landslides. In addition, the site is located in a flat and developed area. Therefore, the project would not cause potential substantial adverse effects related to slope instability or seismically induced landslides. No mitigation measures are required.

#### b) **Result in soil erosion or the loss of topsoil?**

**Less Than Significant Impact.** The project site is largely impervious, as it is generally covered by pavement or the building structure. However, small areas of landscaping exist within the parking area and along the site boundary. During construction, the project would redevelop the site for commercial retail and restaurant uses, which would include areas of landscaping that would surround the proposed structures and be located along the site boundary, similar to the areas of

landscaping that currently exist. The new paved areas and landscaping from the project would not result in soil erosion or the loss of topsoil.

In addition, Section 6.40.050 of the GGMC states that all new development and significant reconstruction within the City, such as the project, shall be undertaken in accordance with the County Drainage Area Management Plan (DAMP). The DAMP requires construction sites implement control practices that address erosion and sedimentation (DAMP Section 8.0). Additionally, the Statewide National Pollutant Discharge Elimination System (NPDES) Permit for General Construction Activity requires implementation of a Storm Water Pollution Prevention Plan (SWPPP), by a Qualified SWPPP Developer. The SWPPP is required to be consistent with the County DAMP, address site-specific conditions related to sources of sediment, and implement erosion control and sediment control Best Management Practices (BMPs) to reduce or eliminate sediment during construction. Adherence to a City approved SWPPP, as included as PPP WQ-1, which would be verified prior to the issuance of a demolition or grading permit would ensure that potential erosion associated with construction activities would be minimized, and impacts would be less than significant. No mitigation measures are required.

- c) 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 offsite landslide, lateral spreading, subsidence, liquefaction or collapse?**

**Less Than Significant Impact.** As described above, the project site is flat, and does not contain nor is adjacent to any slope or hillside area. The project would not create slopes. Thus, on or off-site landslides would not occur from implementation of the project. Also, as previously described, potential effects related to liquefaction would be avoided by removal and re-compaction of the upper 3 feet of soils and utilization of post-tensioned slabs or equivalent foundation systems in compliance with the CBC, and impacts related to liquefaction would be less than significant.

Lateral spreading, a phenomenon associated with seismically induced soil liquefaction, is a display of lateral displacement of soils due to inertial motion and lack of lateral support during or post liquefaction. It is typically exemplified by the formation of vertical cracks on the surface of liquefied soils, and usually takes place on gently sloping ground or level ground with nearby free surface such as drainage or stream channel. As described previously, the Geotechnical Engineering Report describes that onsite soils consist of sand with varying amounts of silt with interbedded layers of clay and varying amounts of silt and sand, and that groundwater is approximately 25.5 feet bgs, as a result the site could be subject to seismic related lateral spreading. Also, as described previously, the Geotechnical Engineering Report states that project construction should include removal and re-compaction of the upper 3 feet of the site soils and utilization of a post-tensioned slabs or equivalent foundation systems in compliance with the CBC. As included as PPP GEO-1, would require specific CBC compliant engineering design recommendations be incorporated into grading plans and building specifications as a condition of construction permit approval to ensure that project structures would withstand effects related to ground movement, including lateral spreading. Thus, impacts would be less than significant with respect to lateral spreading, and no mitigation measures are required.

Soils collapse could occur if buildings or other improvements are built on low-strength foundation materials (including imported fill) or if improvements straddle the boundary between different types of subsurface materials (e.g., a boundary between native material and fill). Soils susceptible to seismically induced collapse typically include dry loose sands. As described previously, the Geotechnical Engineering Report testing results indicate that removal and re-compaction of the upper 3 feet of the site soils and utilization of a post-tensioned slabs or equivalent foundation

systems in compliance with the CBC. Thus, with compliance with the CBC, as included as PPP GEO-1, would reduce potential impacts to a less than significant level and no mitigation measures are required.

**d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?**

**Less Than Significant Impact.** Expansive soils contain certain types of clay minerals that shrink or swell as the moisture content changes; the shrinking or swelling can shift, crack, or break structures built on such soils. Arid or semiarid areas with seasonal changes of soil moisture experiences, such as Southern California, have a higher potential of expansive soils than areas with higher rainfall and more constant soil moisture.

The Geotechnical Engineering Report describes soils encountered at the project site generally consisted of sand with varying amounts of silt, and interbedded layers of clay with varying amounts of silt and sand to an approximate depth of 78 feet bgs. Due to the soil's general consistency of sand, the onsite soils are not considered to be expansive. However, as described previously, the project would include removal and re-compaction of the upper 3 feet of the site soils and utilization of a post-tensioned slabs or equivalent foundation system in compliance with the CBC and as included as PPP GEO-1, which would ensure that project structures would withstand the effects related to ground movement, including expansive soils. Thus, impacts would be less than significant, and no mitigation measures are required.

**e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?**

**No Impact.** The project would not use septic tanks or alternative methods for disposal of wastewater into subsurface soils. Furthermore, the proposed project would connect to existing public wastewater infrastructure. Therefore, the project would not result in any impacts related to septic tanks or alternative wastewater disposal methods, and no mitigation measures would be required.

**f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

**Less than Significant Impact with Mitigation Incorporated.  
Construction**

The surficial geologic units mapped at the site consists of Quaternary age recent alluvium (GEO 2020). These deposits typically do not contain significant vertebrate fossils within the uppermost layers; however, older Quaternary deposits may exist below the recent alluvium, which have the potential to yield fossils.

As described previously, the project site has been disturbed by previous agricultural and development activities. As detailed by the Geotechnical Engineering Report the site has approximately 3 to 5 feet of fill material across the site that would be removed, recompacted and utilized for engineered fill. These upper layer fill materials are recent alluvium that have a low paleontological sensitivity rating, and the project would not excavate beyond the limits of the fill material. Therefore, no resources are anticipated to be unearthed.



However, Mitigation Measure PAL-1 has been included to provide procedures to be followed in the unlikely event that grading encroaches into older Quaternary deposits and/or potential paleontological resources are discovered during grading or excavation activities. Mitigation Measure PAL-1 requires that work shall cease within 50 feet of a find until a qualified paleontologist has evaluated the find in accordance with federal and state regulations. Mitigation Measure PAL-1 would reduce potential impacts to undiscovered paleontological resources to a less than significant level.

**Operation.** At the completion of project construction, the project would not result in further disturbance of native soils on the project site. Therefore, operation of the project would not result in a substantial adverse change in the significance of a unique paleontological resource or site or unique geologic feature. No mitigation would be required.

### **Existing Plans, Programs, or Policies**

**PPP GEO-1: California Building Code.** The project is required to comply with the California Building Code as included in the City's Municipal Code Chapter 18.12 to preclude significant adverse effects associated with seismic hazards. California Building Code related and geologist and/or civil engineer specifications for the project are required to be incorporated into grading plans and specifications as a condition of project approval.

**PPP WQ-1: SWPPP:** Prior to grading permit issuance, the project developer shall have a Stormwater Pollution Prevention Plan (SWPPP) prepared by a QSD (Qualified SWPPP Developer) in accordance with the County Drainage Area Management Plan (DAMP). The SWPPP shall incorporate all necessary Best Management Practices (BMPs) and other DAMP requirements to comply with the National Pollutant Discharge Elimination System (NPDES) regulations to limit the potential of polluted runoff during construction activities. Project contractors shall be required to ensure compliance with the SWPPP and permit periodic inspection of the construction site by City of Garden Grove staff or its designee to confirm compliance.

### **Mitigation Measures**

**Mitigation Measure PAL-1: Paleontological Resources.** Construction plans and specifications shall state that in the event that potential paleontological resources are discovered during excavation, grading, or construction activities, work shall cease within 50 feet of the find until a qualified paleontologist (i.e., a practicing paleontologist that is recognized in the paleontological community and is proficient in vertebrate paleontology) has evaluated the find in accordance with federal and state regulations. Construction personnel shall not collect or move any paleontological materials and associated materials. If any fossil remains are discovered, the paleontologist shall make a recommendation if monitoring shall be required for the continuance of earth moving activities. Prior to commencement of grading activities, the Director of the City Community and Economic Development Department, or designee, shall verify that all project grading and construction plans specify federal, state, and local requirements related to the unanticipated discovery of paleontological resources as stated above.

**Sources**

City of Garden Grove Municipal Code. Accessed: <https://www.qcode.us/codes/gardengrove/>

Geotechnical Engineering Report, April 2020. Prepared by Terracon Consultants, Inc. (Geo 2020).

Orange County Drainage Area Management Plan. Accessed:  
<http://www.ocwatersheds.com/documents/damp>

U.S. Geological Survey U.S. Quaternary Fault Mapping (USGS 2020). Accessed:  
<https://usgs.maps.arcgis.com/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**8. GREENHOUSE GAS EMISSIONS.**

Would the project:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

☐☐☒☐

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

☐☐☐☒

The discussion below is based on the CalEEMod Emissions Summary Sheet prepared by Vince Mirabella (AQ 2020), included as Appendix A.

**GHG Thresholds**

Global climate change (GCC) describes alterations in weather features (e.g., temperature, wind patterns, precipitation, and storms) that occur across the Earth as a whole. GCC is not confined to a particular project area and is generally accepted as the consequence of global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough greenhouse gas (GHG) emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

The principal GHGs of concern contributing to the greenhouse effect are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF<sub>6</sub>). GHGs are produced by both direct and indirect emissions sources. Direct emissions include consumption of natural gas, heating and cooling of buildings, landscaping activities and other equipment used directly by land uses. Indirect emissions include the consumption of fossil fuels for vehicle trips, electricity generation, water usage, and solid waste disposal. The large majority of GHG emissions generated from commercial projects are related to vehicle trips.

The City of Garden Grove has not adopted a numerical significance threshold to evaluate GHG impacts. However, the SCAQMD has proposed interim numeric GHG significance thresholds that are based on capture of approximately 90 percent of emissions from residential or commercial development, which is 3,000 metric tons carbon dioxide equivalent (MTCO<sub>2</sub>e) per year (SCAQMD 2008). The 3,000 metric ton threshold is based on the Executive Order S-3-05 year 2050 goal. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO<sub>2</sub> concentrations at 450 ppm, thus stabilizing global climate.

In addition, SCAQMD methodology for project's construction are to average them over 30-years and then add them to the project's operational emissions to determine if the project would exceed the 3,000 metric ton threshold. This approach is widely used by cities in the South Coast Air Basin, including the City of Garden Grove. Therefore, for purposes of examining potential GHG impacts from implementation of the proposed project, the threshold of 3,000 MTCO<sub>2</sub>e is utilized herein to determine if GHG emissions from this project would be significant.

**a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?****Less Than Significant Impact.**

**Construction.** During construction, temporary sources of GHG emissions include use of heavy-duty construction equipment onsite, use of construction vehicles, equipment hauling materials to and from the site, asphalt paving, and motor vehicles transporting the construction crew. The combustion of fossil-based fuels creates GHGs such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O.

The proposed project would redevelop the project site with a new 65,980 square foot commercial retail/restaurant shopping center. The CalEEMod Emissions Summary prepared for the project assumed a slightly greater build out of 66,080 square feet; and therefore, assumes slightly more construction emissions would result from the project, which provides a conservative analysis of potential impacts. As shown on Table GHG-1, the project has the potential to generate a total of approximately 25 MTCO<sub>2</sub>e per year from construction emissions amortized over 30 years per SCAQMD methodology.

**Table GHG-1: Construction Generated Greenhouse Gas Emissions**

<b>Activity</b>	<b>Annual GHG Emissions (MTCO<sub>2</sub>e)</b>
Construction in 2021	628
Construction in 2022	118
Total Construction Emissions	746
<b>Total Construction Emissions Amortized Over 30 years</b>	<b>25</b>

Source: AQ 2020, Appendix A.

**Operation.** Operation of the proposed commercial retail/restaurant uses would result in GHG emissions from vehicle trips, electricity and natural gas consumption, water transport (the energy used to pump water), and solid waste generation. GHG emissions from electricity consumed by the commercial uses would be generated off-site by fuel combustion at the electricity provider. GHG emissions from water transport are also indirect emissions resulting from the energy required to transport water from its source. The large majority of GHG emissions generated from the project would be from vehicle trips.

As described previously, the proposed project would redevelop the project site with a new 65,980 square foot commercial retail/restaurant shopping center. However, the CalEEMod Emissions Summary prepared for the project assumed a slightly greater build out of 66,080 square feet; and therefore, assumes slightly more operational emissions would result from the project, which provides a conservative analysis of potential impacts. The estimated operational GHG emissions that would be generated from implementation of the proposed project are shown in Table GHG-2 along with the amortized construction emissions.

**Table GHG-2: Total Project Generated Greenhouse Gas Emissions**

<b>Activity</b>	<b>Annual GHG Emissions (MTCO<sub>2</sub>e)</b>
Project Operational Emissions	
Area	0
Energy	1,009
Mobile	1,773
Waste	28
Water	53
Total	2,863
Project Construction Emissions	25
<b>Total Construction and Operation</b>	<b>2,888</b>
<b>Significance Threshold</b>	<b>3,000</b>
<b>Project Exceeds Threshold?</b>	<b>No</b>

Source: AQ 2020, Appendix A.

As shown on Table GHG-2, the project would result in approximately 2,888 MTCO<sub>2</sub>e per year, which would be below the threshold of 3,000 MTCO<sub>2</sub>e per year. Therefore, impacts related to greenhouse gas emissions would be less than significant and no mitigation is required.

In addition, the project would install CALGreen/Title 24 compliant insulation, appliances, HVAC systems, and other such infrastructure as included in the GGMC as Section 18.04.010 (and PPP E-1) that would be ensured to meet state requirements through the City's building permitting processes, which would provide for energy efficient infrastructure and limited GHG emissions.

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**No Impact.** The proposed project would redevelop the site with commercial retail/restaurant uses that would comply with state programs that are designed to be energy efficient. The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. As described in the previous response, the project would not exceed the GHG emissions threshold that is based on the Executive Order S-3-05 year 2050 goal. Achieving the Executive Order's objective would contribute to worldwide efforts to cap CO<sub>2</sub> concentrations at 450 ppm, thus stabilizing global climate. In addition, the project would comply with regulations imposed by the state and the SCAQMD that reduce GHG emissions, as described below:

- Global Warming Solutions Act of 2006 (AB 32) is applicable to the project because many of the GHG reduction measures outlined in AB 32 (e.g., low carbon fuel standard, advanced clean car standards, and cap-and-trade) have been adopted and implementation activities are ongoing. The low carbon fuel standard requires carbon content of fuel sold in California to be 10 percent less by 2020. The advanced clean car standards are regulations for car manufacturers; and cap-and-trade refers to a policy tool where emissions from a certain region or sector (e.g., electricity generation, petroleum refining, cement production) are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. The project would redevelop the project site for new commercial retail/restaurant uses that would not conflict with the content of fuel being used for vehicular trips to and from the project site, car standards, or cap-and-trade.

- Pavley Fuel Efficiency Standards (AB 1493) establishes fuel efficiency ratings for new passenger cars and light trucks. The project would develop commercial retail/restaurant uses that would not conflict with fuel efficiency standards for vehicles.
- Title 24 California Code of Regulations (Title 24) establishes energy efficiency requirements for new construction that address the energy efficiency of new (and altered) residences and commercial buildings. Title 24 is included in the GGMC as Section 18.04.010 (and PPP E-1), which would provide efficient energy and water consumption. The City's administration of the requirements includes review of the energy conservation measures during the permitting process, which ensures that all requirements are met.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard [LCFS]) requires carbon content of fuel sold in California to be 10 percent less by 2020. Because the LCFS applies to any transportation fuel that is sold or supplied in California, all vehicles trips generated by the project within the state would comply with LCFS.
- California Water Conservation in Landscaping Act of 2006 (AB 1881) provides requirements to ensure water efficient landscapes in new development and reduced water waste in existing landscapes. The project is required to comply with AB 1881 landscaping requirements (included in the GGMC in Section 9.16.040.070 and pursuant to the Title 24 regulations in GGMC Section 18.04.010), which would be verified by the City during the project permitting process.

Additionally, the City currently does not have an adopted Climate Action Plan. Overall, implementation of the project would not conflict with any applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Thus, impacts would not occur, and no mitigation measures are required.

### **Existing Plans, Programs, or Policies**

**PPP E-1: CalGreen Compliance.** As listed previously in Section 6, *Energy*.

### **Mitigation Measures**

No mitigation measures related to greenhouse gas emissions are required.

### **Sources**

CalEEMod Emissions Summary. Prepared by Vince Mirabella (AQ 2020).

South Coast Air Quality Management District Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Thresholds (SCAQMD 2008). Accessed: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgattachmente.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b><u>9. HAZARDS AND HAZARDOUS MATERIALS.</u></b> Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The discussion below is based on the Phase I Environmental Assessment Report (Phase I 2017), included as Appendix B.

**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.** A hazardous material is defined as any material that, due to its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that regulatory agencies have a reasonable basis for believing would be injurious to



the health and safety of persons or harmful to the environment if released into the home, workplace, or environment. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment.

### **Construction**

The proposed construction activities would involve the transport, use, and disposal of hazardous materials such as paints, solvents, oils, grease, and caulking. In addition, hazardous materials would be needed for fueling and servicing construction equipment on the site. These types of materials are not acutely hazardous, and all storage, handling, use, and disposal of these materials are regulated by federal and state requirements, which the project construction activities are required to strictly adhere to. These regulations include: the federal Occupational Safety and Health Act and Hazardous Materials Transportation Act; Title 8 of the California Code of Regulations (CalOSHA), and the state Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. As a result, the routine transport, use or disposal of hazardous materials during construction activities of the project would be less than significant. No mitigation measures are required.

### **Operation**

Operation of the project includes activities related to the commercial retail and restaurant uses, which involve use of hazardous materials including solvents, cleaning agents, paints, pesticides, batteries, fertilizers, and aerosol cans. These types of materials are not acutely hazardous and would only be used and stored in limited quantities within the project area. The normal routine use of these hazardous materials products pursuant to existing regulations would not result in a significant hazard to people or the environment in the vicinity of the project. Therefore, the project would not result in a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous waste, and impacts would be less than significant. No mitigation measures are required.

### **b) 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?**

#### **Less Than Significant Impact.**

**Construction -Accidental Releases.** While the routine use, storage, transport, and disposal of hazardous materials in accordance with applicable regulations during construction activities would not pose health risks or result in significant impacts; improper use, storage, transportation and disposal of hazardous materials and wastes could result in accidental spills or releases, posing health risks to workers, the public, and the environment. To avoid an impact related to an accidental release, the use of best management practices (BMPs) during construction are implemented as part of a Stormwater Pollution Prevention Plan (SWPPP) as required by the National Pollution Discharge Elimination System General Construction Permit (and included as PPP WQ-1). Implementation of an SWPPP would minimize potential adverse effects to workers, the public, and the environment. Construction contract specifications would include strict on-site handling rules and BMPs that include, but are not limited to:

- Establishing a dedicated area for fuel storage and refueling and construction dewatering activities that includes secondary containment protection measures and spill control supplies;
- Following manufacturers' recommendations on the use, storage, and disposal of chemical products used in construction;

- Avoiding overtopping construction equipment fuel tanks;
- Properly containing and removing grease and oils during routine maintenance of equipment; and
- Properly disposing of discarded containers of fuels and other chemicals.

**Asbestos-Containing Materials.** The use of asbestos-containing materials (a known carcinogen) and lead paint (a known toxin) was common in building construction prior to 1978 (the use of asbestos-containing materials in concrete products was common through the 1950s). Asbestos is a carcinogen and is categorized as a hazardous air pollutant by the federal Environmental Protection Agency (EPA). Federal asbestos requirements are found in the Code of Federal Regulations (CFR) Title 40, Part 61, Subpart M, and are enforced in the project area by the SCAQMD. SCAQMD Rule 1403 establishes survey requirements, notification, and work practice requirements to prevent asbestos emissions from emanating during building renovation and demolition activities.

The Phase I Environmental Assessment Report identified suspected asbestos containing materials throughout the building interior. As a result, asbestos surveys and abatement would be required prior to demolition of the existing building pursuant to the existing SCAQMD, Cal/OSHA, and Section 19827.5 of the California Health and Safety Code requirements.

SCAQMD Rule 1403 requires notification of the SCAQMD prior to commencing any demolition or renovation activities that involve asbestos containing materials. Rule 1403 also sets forth specific procedures for the removal of asbestos and requires that an onsite representative trained in the requirements of Rule 1403 be present during the stripping, removing, handling, or disturbing of asbestos-containing materials. Mandatory compliance with the provisions of Rule 1403 would ensure that construction-related grading, clearing and demolition activities do not expose construction workers or nearby sensitive receptors to significant health risks associated with asbestos-containing materials. With compliance with AQMD Rule 1403, potential impacts related to asbestos being released into the environment would be less than significant. No mitigation measures are required.

**Lead Based Paint.** Based on the age of the existing building on the site, it is possible that lead-based paint may be present. Pursuant to existing regulations, a lead-based paint survey shall be completed prior to any activities with the potential to disturb suspected lead based painted surfaces. The regulations specify actions to manage and control exposure to lead-based paint (per the Code of Federal Regulations Title 29, Section 1926.62 and California Code of Regulations Title 8 Section 1532.1) that cover the demolition, removal, cleanup, transportation, and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring and compliance to ensure the safety of construction workers exposed to lead-based materials. In addition, Cal/OSHA's Lead in Construction Standard requires the project to develop and implement a lead compliance plan when lead-based paint would be disturbed during construction. The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA requires 24-hour notification if more than 100 square feet of lead-based paint would be disturbed. With compliance to the Cal/OSHA requirements, potential impacts related to lead-based paint being released into the environment would be less than significant. No mitigation measures are required.

**Operation**

Operation of the proposed commercial retail and restaurant uses involve use and storage of common hazardous materials such as paints, solvents, cleaning products, fuels, lubricants, adhesives, sealers, and pesticides/herbicides. Normal routine use of these typical commercially used products pursuant to existing regulations would not result in a significant hazard to the environment, residents, or workers in the vicinity of the project. No mitigation measures are required.

**c) Emit hazardous emissions or handle hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

**Less Than Significant Impact.** The closest existing school to the project site is the Brookhurst Elementary School, which is located approximately 0.30 mile away from the project site at 10242 Bixby Avenue. As described in response a), construction and operation of the project would involve the use, storage, and disposal of small amounts of hazardous materials on the project site. These hazardous materials would be limited and used and disposed of in compliance with federal, state, and local regulations, which would reduce the potential for accidental release into the environment near the school. In addition, the proposed commercial retail and restaurant uses would not involve the use or handling of acutely hazardous materials.

Also, the emissions that would be generated from construction and operation of the project were evaluated in the air quality analysis presented in Section 3, and the emissions generated from the project would not cause or contribute to an exceedance of the federal or state air quality standards. Thus, the project would not emit hazardous emissions or handle acutely hazardous materials, substances, or waste near the school, and impacts would be less than significant. No mitigation measures are required.

**d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?**

**No Impact.** The Phase I Environmental Site Assessment did not identify the project site or any properties in the nearby area as included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Phase I 2017). In addition, a search of the California Department of Toxic Substances Control EnviroStor database did not identify the project site or any area within the project vicinity as a hazardous materials site. Thus, impacts related to hazards from being located on or adjacent to a hazardous materials site would not occur from implementation of the project. No mitigation measures are required.

**e) For a project 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 or excessive noise for people residing or working in the project area?**

**No Impact.** The proposed project is not within an airport land use plan and is not within 2 miles of an airport. The closest airport to the project site is the Los Alamitos Army Air Field, which is located approximately 5.2 miles east of the project site. In addition, the Fullerton Municipal Airport is located approximately 5.8 miles to the north of the site, and John Wayne Airport is located approximately 9 miles southeast of the project site. Therefore, the proposed project would not result in an impact to an airport land use plan and would not result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur, and no mitigation would be required.

**f) Impair implementation of an adopted emergency response plan or emergency evacuation plan?**

**Less Than Significant Impact.** The proposed project would not physically interfere with an adopted emergency response plan or emergency evacuation plan.

**Construction**

The proposed construction activities, including equipment and supply staging and storage, would occur within the project site, and would not restrict access of emergency vehicles to the project site or adjacent areas. The installation of new driveways and connections to existing infrastructure systems that would be implemented during construction of the proposed project would not require closure of Chapman Avenue. Any temporary lane closures needed for utility connections or driveway access construction would be implemented consistent with the recommendations of the California Joint Utility Traffic Control Manual (Caltrans 2014), as incorporated into a Traffic Management Plan for the project that the City requires for receipt of construction permits. The Traffic Management Plan would ensure that substantial traffic queuing along Chapman Avenue would not occur and that all construction equipment would be staged on site. Thus, implementation of the project through the City's permitting process would ensure existing regulations are adhered to and would reduce potential construction related emergency access or evacuation impacts to a less than significant level. No mitigation measures are required.

**Operation**

Direct access to the project site would be provided from Chapman Avenue by two driveways. The project driveways and internal access would be required through the City's permitting procedures to meet the City's design standards to ensure adequate emergency access and evacuation. The project is also required to provide fire suppression facilities (e.g., hydrants and sprinklers). The fire department would review the development plans as part of the permitting procedures to ensure adequate emergency access pursuant to the requirements in Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9), included in GGMC Section 18.32.020. As such, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant. No mitigation measures are required.

**g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

**No Impact.** The project site is within an urbanized residential area of the City of Garden Grove. The project site is surrounded by developed and urban areas. The project site is not adjacent to any wildland areas. According to the CAL FIRE Hazard Severity Zone map, the project site is not within a fire hazard zone. As a result, the proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. No mitigation measures are required.

**Existing Plans, Programs, or Policies**

**PPP WQ-1: SWPPP.** As listed below in Section 10, *Hydrology and Water Quality*.

**PPP HAZ-1: Asbestos Containing Materials.** Prior to issuance of demolition permits, the project applicant shall submit verification to the City Building and Safety Department that an asbestos

survey has been conducted pursuant to SCAQMD Rule 1403. If asbestos is found, the project applicant shall follow all procedural requirements and regulations of SCAQMD Rule 1403. Rule 1403 regulations require that the following actions be taken: notification of SCAQMD prior to construction activity, asbestos removal in accordance with prescribed procedures, placement of collected asbestos in leak-tight containers or wrapping, and proper disposal.

**PPP HAZ-2: Lead Based Paint.** Prior to issuance of demolition permits, the project applicant shall submit verification to the City Building and Safety Department that a lead-based paint survey has been conducted. If lead-based paint is found, the project applicant shall follow all procedural requirements and regulations for proper removal and disposal of the lead-based paint. Cal-OSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, CCR Title 8, Section 1532.1 provides for exposure limits, exposure monitoring, and respiratory protection, and mandates good working practices by workers exposed to lead.

### **Mitigation Measures**

None.

### **Sources**

California Department of Forestry and Fire Protection (CAL FIRE). 2020. Fire Hazard Severity Zone Map. Accessed:  
<https://forestwatch.maps.arcgis.com/apps/Styler/index.html?appid=5e96315793d445419b6c96f89ce5d153>

California Department of Toxic Substances Control EnviroStor database (EnviroStor 2020). Accessed: <https://www.envirostor.dtsc.ca.gov/public/>

Phase I Environmental Site Assessment Report (Phase I 2017), Prepared by Partner Engineering and Science, Inc., 2017

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>10. HYDROLOGY AND WATER QUALITY.</b> Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The discussion below is based on the Preliminary Hydrology Study, prepared by Kimley Horn, included as Appendix D and the Water Quality Management Plan, prepared by Kimley Horn., included as Appendix E.

**a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?**

**Less Than Significant Impact.****Construction**

Implementation of the proposed project includes demolition of the existing building, pavement, and infrastructure, site preparation, construction of new buildings, and infrastructure improvements. Demolition of existing structures, grading, stockpiling of materials, excavation, construction of new structures, and landscaping activities would expose and loosen sediment and building materials, which would have the potential to mix with stormwater and urban runoff and degrade surface and receiving water quality.

Additionally, construction generally requires the use of heavy equipment and construction-related materials and chemicals, such as concrete, cement, asphalt, fuels, oils, antifreeze, transmission fluid, grease, solvents, and paints. In the absence of proper controls, these potentially harmful materials could be accidentally spilled or improperly disposed of during construction activities and could wash into and pollute surface waters or groundwater, resulting in a significant impact to water quality. However, Section 6.40.050 of the GGMC states that all new development and significant redevelopment within the City shall be undertaken in accordance with the County Drainage Area Management Plan (DAMP), including any conditions and requirements established related to the reduction or elimination of pollutants in storm water runoff from the project site, which are verified prior to the issuance of a grading permit and/or building permit by the City.

The DAMP requires construction sites to implement BMPs that address control of construction related pollutants discharges, including erosion/sediment control, onsite hazardous materials, and waste management (DAMP Section 8.0). Additionally, the Statewide NPDES Permit for General Construction Activity requires implementation of a SWPPP, by a Qualified SWPPP Developer. The SWPPP is required to be consistent with the County DAMP; address site-specific conditions related to construction; identify the sources of sediment and other pollutants that may affect the quality of storm water discharges during construction; and implement erosion control and sediment control BMPs to reduce or eliminate sediment, pollutants adhering to sediment, and other non-sediment pollutants in water discharges during construction. Typical erosion control methods that are designed to minimize potential pollutants entering stormwater during construction include:

- Prompt revegetation of proposed landscaped areas;
- Perimeter gravel bags or silt fences to prevent off-site transport of sediment;
- Storm drain inlet protection (filter fabric gravel bags and straw wattles), with gravel bag check dams within paved roadways;
- Regular sprinkling of exposed soils to control dust during construction and soil binders for forecasted wind storms;
- Specifications for construction waste handling and disposal;
- Contained equipment wash-out and vehicle maintenance areas;
- Erosion control measures including soil binders, hydro mulch, geotextiles, and hydro seeding of disturbed areas ahead of forecasted storms;
- Construction of stabilized construction entry/exits to prevent trucks from tracking sediment on City roadways;
- Construction timing to minimize soil exposure to storm events; and
- Training of subcontractors on general site housekeeping.



Adherence to a City approved SWPPP, included as PPP WQ-1, which would be verified prior to the issuance of a demolition and/or grading permit would ensure that potential water quality degradation associated with construction activities would be minimized, and impacts would be less than significant. No mitigation measures are required.

### Operation

The proposed project includes operation of commercial retail and restaurant uses. Potential pollutants associated with the proposed uses include various chemicals from cleaners, nutrients from fertilizer, pesticides and sediment from landscaping, trash and debris, and oil and grease from vehicles. If these pollutants discharge into surface waters, it could result in degradation of water quality.

However, operation of the proposed project would be required to comply with the requirements of the County DAMP and would be required to implement a Water Quality Management Plan (WQMP) (included as PPP WQ-2) that includes Low Impact Development (LID) features and BMPs to limit the potential for pollutants to enter surface water, such as storm water runoff. The WQMP has been completed and is included as Appendix E. The purpose of a WQMP is to reduce discharge of pollutants by reducing or eliminating sources of pollutants, capture pollutants, and manage site runoff volumes and flow rates through application of appropriate LID features and BMPs. The WQMP is required to include implementation of non-structural, structural, source control and treatment control BMPs that have been designed to protect water quality. As described in the project description, the project would install drainage features to convey runoff to underground storm water infiltration tanks that would be installed on the site, which have been designed to capture, infiltrate, and treat flows from the 85th percentile storm as required by the DAMP. The additional types of BMPs that would be implemented as part of the project WQMP are listed in Table WQ-1.

**Table WQ-1: Types of BMPs Incorporated into the Project WQMP**

Type of BMP	Description of BMPs
<b>LID Site Design</b>	<u>Optimize the site layout:</u> The site has been designed so that runoff from impervious surfaces would flow to either landscaped areas or an underground infiltration tank for treatment by infiltration.
	<u>Use pervious surfaces:</u> Landscaping is incorporated into the project design to increase the amount of pervious area and onsite retention of stormflows.
<b>Source Control</b>	<u>Storm Drain Stenciling:</u> All inlets/catch basins would be stenciled with the words "Only Rain Down the Storm Drain," or equivalent message.
	<u>Design and construct trash and waste storage areas to reduce pollution introduction.</u>
	<u>Need for future indoor &amp; structural pest control:</u> The buildings would be designed to avoid openings that would encourage entry of pests.
	<u>Landscape/outdoor pesticide use:</u> Landscape plans would accomplish all of the following: <ul style="list-style-type: none"> <li>• Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to storm water pollution.</li> <li>• Consider using pest-resistant plants, especially adjacent to hardscape.</li> <li>• To ensure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions</li> </ul>
	<u>Roofing, gutters and trim:</u> The architectural design would avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff.

Type of BMP	Description of BMPs
	<u>Sidewalks and parking lots:</u> Sidewalks and parking lots shall be swept regularly to prevent the accumulation of litter and debris. Debris from pressure washing would be collected to prevent entry into the storm drain system. Wash water containing any cleaning agent or degreaser would be collected and discharged to the sanitary sewer and not discharged to a storm drain.
<b>Treatment Control</b>	<u>Biofiltration Systems:</u> The underground infiltration tank system proposed for the project would detain runoff, filter it prior to discharge.

As described previously, a WQMP is required to be approved prior to the issuance of a building or grading permit. The project's WQMP would be reviewed and approved by the City to ensure it complies with the DAMP regulations. In addition, the City's permitting process would ensure that all LID features in the WQMP would be implemented with the project. Overall, implementation of the WQMP pursuant to the existing regulations (included as PPP WQ-2) would ensure that operation of the proposed project would not violate any water quality standards, waste discharge requirements, or otherwise degrade water quality; and impacts would be less than significant. No mitigation measures are required.

**b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?**

**Less Than Significant Impact.** The project site currently consists of 92 percent impervious surfaces (8 percent pervious). The pervious areas consist of small areas of landscaping. The project site does not currently provide for groundwater recharge. In the existing condition, a series of valley gutters directs runoff to a catch basin that discharges stormwater directly to a 57-inch storm drain that is to the south of the site.

After completion of project construction, the site would be 89 percent impervious and 11 percent pervious (WQMP 2020), which is an increase of 3 percent pervious surface area. Additionally, stormwater runoff would be conveyed to underground storm water infiltration tanks that have been designed to capture, treat, and infiltrate flows. Therefore, the project would increase infiltration compared to the existing condition; and therefore, would not 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.

In addition, groundwater within the project region is managed by the Orange County Water District (OCWD). To ensure the Basin is not overdrawn, OCWD monitors water levels and recharges the Basin with local and imported water. Continued management of the groundwater basin by OCWD will ensure that substantial depletion of groundwater supplies would not occur. Thus, impacts related to the groundwater recharge would not occur. No mitigation measures are required. The evaluation of water supplies needed for the project is provided in Section 19, *Utilities and Service Systems*.

**c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**i. result in substantial erosion or siltation on- or off-site;**

**Less Than Significant Impact.** The project site does not include a stream, river, creek, or other water body.

**Construction.**

Construction of the proposed project would require demolition of the existing building foundations and floor slabs and pavement, that would expose and loosen building materials and sediment, which has the potential to mix with storm water runoff and result in erosion or siltation off-site. However, the project site does not include any slopes, which reduces the erosion potential.

The NPDES Construction General Permit and Orange County DAMP require preparation and implementation of a SWPPP by a Qualified SWPPP Developer for the proposed construction activities (included as PPP WQ-1). The SWPPP is required to address site-specific conditions related to potential sources of sedimentation and erosion and would list the required BMPs that are necessary to reduce or eliminate the potential of erosion or alteration of a drainage pattern during construction activities.

In addition, a Qualified SWPPP Practitioner (QSP) is required to ensure compliance with the SWPPP through regular monitoring and visual inspections during construction activities. The SWPPP would be amended and BMPs revised, as determined necessary through field inspections, in order to protect against substantial soil erosion, the loss of topsoil, or alteration of the drainage pattern. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) would prevent construction-related impacts related to potential alteration of a drainage pattern or erosion from development activities. With implementation of the existing construction regulations that would be verified by the City during the permitting approval process, impacts related to alteration of an existing drainage pattern during construction that could result in substantial erosion, siltation, and increases in stormwater runoff would be less than significant. No mitigation measures are required.

**Operation.**

The project site currently consists of 94.4 percent impervious surfaces (5.6 percent pervious). After completion of project construction, the site would be 88.0 percent impervious and 12.0 percent pervious (WQMP 2020), which is an increase of 6.4 percent pervious surface area. The impervious areas would not be subject to erosion and the pervious areas would be landscaped with groundcovers that would inhibit erosion.

The proposed project would maintain the existing drainage pattern. In the existing condition, a series of valley gutters directs runoff to an existing catch basin in the southwest corner of the site. Runoff enters the catch basin and discharges directly to an existing 57-inch storm drain line that parallels the southern boundary of the site. With implementation of the project, stormwater runoff would be conveyed to underground storm water infiltration tanks that would be installed on the site, which have been designed to capture, treat, and infiltrate flows.

As shown in Table WQ-2, the project runoff conditions would decrease by 10.45 cfs from predevelopment conditions because the impervious surface area would decrease by 3 percent, which would reduce the potential of onsite soils being eroded.

**Table WQ-2: 100-Year Storm Water Flow Comparison**

	<b>Pervious Area</b>	<b>Impervious Area</b>	<b>100-Year Flow (cfs)</b>	<b>Flow Reduction (cfs)</b>
Existing Condition	17,134 SF	288,205	33.41	10.45
Proposed Condition	36,584 SF	268,755	22.96	

Source: Appendix D

SF= square feet

cfs = cubic feet per second

Additionally, the DAMP requires new development projects to prepare a WQMP (included as PPP WQ-2) that is required to include BMPs to reduce the potential of erosion and/or sedimentation through site design and structural treatment control BMPs. The WQMP has been completed and is included as Appendix E. As part of the permitting approval process, the proposed drainage and water quality design and engineering plans would be reviewed by the City to ensure that the site-specific design limits the potential for erosion and siltation. Overall, the proposed drainage system and adherence to the existing regulations would ensure that project impacts related to alteration of a drainage pattern and erosion/siltation from operational activities would be less than significant. No mitigation measures are required.

- ii. **substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;**

**Less Than Significant Impact.** The project site does not include, and is not adjacent to, a stream or river. Implementation of the project would not alter the course of a stream or river.

#### **Construction**

Construction of the proposed project would require demolition of the existing building, including foundations, floor slabs, and utilities systems. These activities could temporarily alter the existing drainage pattern of the site and change runoff flow rates. However, as described previously, implementation of the project requires a SWPPP (included as PPP WQ-1) that would address site specific drainage issues related to construction of the project and include BMPs to eliminate the potential of flooding or alteration of a drainage pattern during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to potential alteration of a drainage pattern or flooding on or off-site from development activities. Therefore, construction impacts would be less than significant. No mitigation measures are required.

#### **Operation**

As described previously, the proposed project would result in a 3 percent increase of pervious surfaces that would result in a decrease of stormflows. Also, the project would maintain the existing drainage pattern and convey runoff to underground storm water infiltration tanks that would be installed on the site, which have been designed to capture, infiltrate, and treat flows pursuant to the DAMP requirements. As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City to ensure that the proposed drainage would accommodate the appropriate design flows. Overall, the proposed drainage system and adherence to the existing DAMP regulations would ensure that project impacts related to alteration of a drainage pattern or flooding from operational activities would be less than significant. No mitigation measures are required.

**iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**

**Less Than Significant Impact.** As described previously, the project site does not include, and is not adjacent to, a stream or river. Implementation of the project would not alter the course of a stream or river.

**Construction**

As described in the previous response, construction of the proposed project would require demolition and excavation activities that could temporarily alter the existing drainage pattern of the site and could result in increased runoff and polluted runoff if drainage is not properly controlled. However, implementation of the project requires a SWPPP (included as PPP WQ-1) that would address site specific pollutant and drainage issues related to construction of the project and include BMPs to eliminate the potential of polluted runoff and increased runoff during construction activities. This includes regular monitoring and visual inspections during construction activities. Compliance with the Construction General Permit and a SWPPP prepared by a QSD and implemented by a QSP (per PPP WQ-1) as verified by the City through the construction permitting process would prevent construction-related impacts related to increases in run-off and pollution from development activities. Therefore, impacts would be less than significant. No mitigation measures are required.

**Operation**

As described previously, the proposed project would result in a 3 percent decrease of impervious surfaces that would reduce runoff. Also, the project would manage storm flows with underground storm water infiltration tanks that have been designed to accommodate the 85<sup>th</sup> percentile stormwater volumes pursuant to the DAMP requirements.

As part of the permitting approval process, the proposed drainage design and engineering plans would be reviewed by the City to ensure that the proposed drainage would accommodate the appropriate design flows. Additionally, the City permitting process would ensure that the drainage system specifications adhere to the DAMP regulations, which would ensure that pollutants are removed prior to discharge. Overall, with compliance to the existing regulations as verified by the City's permitting process, project impacts related to the capacity of the drainage system and polluted runoff would be less than significant. No mitigation measures are required.

**iv. impede or redirect flood flows?**

**Less Than Significant Impact.** According to the Federal Emergency Management Agency (FEMA) Map 06059C0137J, the project site is not within a flood zone (FEMA 2020). As detailed in the previous responses, implementation of the project would result in a 3 percent increase of permeable surfaces on the site and runoff volumes would be reduced with implementation of the project. In addition, the 85<sup>th</sup> percentile storm water flows (as required by the DAMP) would be accommodated by underground storm water infiltration tanks. Therefore, the project would not result in impeding or redirecting flood flows by the addition of the impervious surfaces. As detailed previously, the City's permitting process would ensure that the drainage system specifications adhere to the DAMP regulations, and compliance with existing regulations would ensure that impacts would be less than significant. No mitigation measures are required.

**d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?**

**No Impact.** According to the Federal Emergency Management Agency (FEMA) Map 06059C0137J, the project site is not within a flood zone (FEMA 2020). Thus, the project site is not located within a flood hazard area that could be inundated with flood flows and result in release of pollutants. Impacts related to flood hazards and pollutants would not occur from the project. No mitigation measures are required.

Tsunamis are generated ocean wave trains generally caused by tectonic displacement of the sea floor associated with shallow earthquakes, sea floor landslides, rock falls, and exploding volcanic islands. The proposed project is approximately 6 miles from the ocean shoreline. Based on the distance of the project site to the Pacific Ocean, the project site is not at risk of inundation from tsunami. Therefore, the proposed project would not risk release of pollutants from inundation from a tsunami. No impact would occur, and no mitigation is required.

Seiching is a phenomenon that occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities (e.g., reservoirs and lakes). Such waves can cause retention structures to fail and flood downstream properties. The project site is not located adjacent to any water retention facilities. For this reason, the project site is not at risk of inundation from seiche waves. Therefore, the proposed project would not risk release of pollutants from inundation from seiche. No impact would occur, and no mitigation is required.

**e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**Less Than Significant Impact.** As described previously, use of BMPs during construction implemented as part of a SWPPP as required by the NPDES Construction General Permit and PPP WQ-1 would serve to ensure that project impacts related to construction activities resulting in a degradation of water quality would be less than significant. Thus, construction of the project would not conflict or obstruct implementation of a water quality control plan.

Also, as described previously, new development projects are required to implement a WQMP (per PP WQ-2) that would comply with the Orange County DAMP. The WQMP and applicable BMPs are verified as part of the City's permitting approval process, and construction plans would be required to demonstrate compliance with these regulations. Therefore, operation of the proposed project would not conflict with or obstruct a water quality control plan.

In addition, as detailed previously, groundwater within the project region is managed by OCWD. To ensure the Basin is not overdrawn, OCWD monitors water levels and recharges the Basin with local and imported water. Continued management of the groundwater basin by OCWD will ensure that substantial depletion of groundwater supplies would not occur. Thus, impacts related to water quality control plan or sustainable groundwater management plan would be less than significant. No mitigation measures are required.

**Existing Plans, Programs, or Policies**

**PPP WQ-1: Stormwater Pollution Prevention Plan:** Prior to grading permit issuance, the project developer shall have a SWPPP prepared by a QSD (Qualified SWPPP Developer) pursuant to the Orange County DAMP. The SWPPP shall incorporate all necessary BMPs and other DAMP

requirements to comply with NPDES regulations to limit the potential of polluted runoff during construction activities. Project contractors shall be required to ensure compliance with the SWPPP and permit periodic inspection of the construction site by City staff, or designee, to confirm compliance.

**PPP WQ-2: WQMP.** Prior to the approval of the Grading Plan and issuance of Grading Permits a completed Water Quality Management Plan (WQMP) shall be submitted to and approved by the City Building and Safety Division. The WQMP shall identify all Post-Construction, Site Design, Source Control, and Treatment Control Best Management Practices (BMPs) that will be incorporated into the development project in order to minimize the adverse effects on receiving waters. The WQMP shall comply with GGMC Section 6.40.050, the Orange County DAMP, and the Santa Ana Region, Regional Water Quality Control Board (RWQCB) requirements in effect at the time permitting.

### **Mitigation Measures**

None.

### **Sources**

City of Garden Grove Municipal Code. Accessed at: <https://www.qcode.us/codes/gardengrove/>

City of Garden Grove 2015 Urban Water Management Plan. Accessed:  
<https://ggcity.org/pdf/pw/finalgardengroveuwpjune2016.pdf>

Preliminary Hydrology Study. Prepared by Kimley Horn.

Water Quality Management Plan. Prepared by Kimley Horn.

Federal Emergency Management Agency (FEMA). 2020. Flood Insurance Rate Map (FIRM) Map No. 06059C0137J. Accessed: <https://msc.fema.gov/portal/home>



	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**11. LAND USE AND PLANNING.** Would the project:

- |  |                          |                          |                          |                                     |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Physically divide an established community?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**a) Physically divide an established community?**

**No Impact.** The project site is currently developed with a vacant building that was previously used as a grocery store. The site is situated along a portion of Chapman Avenue that is a commercial corridor and includes: Walmart, 24-Hour Fitness, Marshalls, Ross Dress for Less, CVS, PetSmart, Party City, and Regal Cinemas.

The project site is bound to the north by Chapman Avenue, which is followed by the Promenade retail shopping center. Areas to the east and west of the site are developed with retail and restaurant uses. The area to the south of the site consists of a vacant railroad easement that is currently being used for vehicle storage.

The proposed project would redevelop the site to provide a variety of commercial retail/restaurant uses that would total 65,980 square feet. The proposed Sprouts Grocery, ULTA beauty store, and other retail and restaurants would be consistent with the existing neighborhood commercial and restaurant uses surrounding the site. Therefore, the change of the project site from a vacant grocery store building to new commercial retail and restaurant uses would not physically divide an established community. In addition, the project would not change roadways or install any infrastructure that would result in a physical division. Thus, the proposed project would not result in impacts related to physical division of an established community. No mitigation measures are required.

**b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**No Impact.**

**General Plan**

The project site has a General Plan land use designation of Residential/Commercial Mixed Use 2 (RC2). According to the General Plan Land Use Element, the RC2 General Plan land use designation allows a FAR of up to 0.50 for non-residential uses. The proposed project would develop approximately 65,980 square feet of commercial retail/restaurant uses on the 7.62-acre (331,927 square feet) site, which would result in a FAR of 0.20, and be within the allowable FAR. Therefore, the project would be consistent with the proposed land use designation, and impacts would not occur. No mitigation measures are required.

**Zoning**

The project site is zoned as Neighborhood Mixed Use (NMU). Section 9.18.010.020(C) of the GGMC states that the NMU zoning district is intended for neighborhood commercial centers. Commercial uses and intensities are limited to those that serve local neighborhood needs, and that are compatible with adjacent and surrounding development. This zone implements the General Plan Residential/Commercial Mixed Use 2 land use designation.

The proposed project would serve local neighborhood needs and includes a Sprouts grocery, ULTA beauty store, a fast food drive-thru restaurant, and other retail/restaurant uses. Also, the proposed project is compatible with the surrounding development, which as described previously, consists of commercial retail uses. Therefore, the proposed project would be consistent with the NMU zoning district, and the proposed project would not conflict with any applicable zoning regulations adopted for the purpose of avoiding or mitigating an environmental effect. No impacts would occur, and no mitigation measures are required.

**Existing Plans, Programs, or Policies**

None.

**Mitigation Measures**

None.

**Sources**

City of Garden Grove General Plan. Accessed: <https://ggcity.org/planning/general-plan>

City of Garden Grove Municipal Code. Accessed: <https://www.qcode.us/codes/gardengrove/>

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>12. MINERAL RESOURCES.</b> Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**No Impact.** In 1975, the California Legislature enacted the Surface Mining and Reclamation Act which, among other things, provided guidelines for the classification and designation of mineral lands. Areas are classified based on geologic factors without regard to existing land use and land ownership. The areas are categorized into 4 Mineral Resource Zones (MRZ):

**MRZ-1:** An area where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.

**MRZ-2:** An area where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.

**MRZ-3:** An area containing mineral deposits, the significance of which cannot be evaluated.

**MRZ-4:** An area where available information is inadequate for assignment to any other MRZ zone.

The mapping by the California Geological Survey indicates that the project site is located within an area designated as MRZ-3, which is an area where the significance of mineral deposits is not evaluated. In addition, the project site is not designated/zoned for the extraction of mineral deposits and no active mining operations exist in the City.

The project site is developed with a vacant building that was previously used as a grocery store and has no history of mining. In addition, the site is located within a commercial retail area that does not include mining. Therefore, implementation of the project would not cause the loss of availability of mineral resources valuable to the region or state, and no impact would occur. No mitigation measures are required.

**b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on the general plan, specific plan or other land use plan?**

**No Impact.** The project site and the surrounding vicinity are highly urbanized, and they are not in or near a mining site identified by the City's General Plan. The site has a general plan land use

and zoning designation for commercial and/or residential uses. No mineral extraction activities occur on the project site, and it is not located within an area known to contain locally important mineral resources. Therefore, the project would not result in the loss of availability of a locally important mineral resource recovery site as delineated on a local general plan, specific plan, or other land use plan as a result of project implementation. No impacts would occur. No mitigation measures are required.

**Existing Plans, Programs, or Policies**

None.

**Mitigation Measures**

None.

**Sources**

City of Garden Grove General Plan. Accessed: <https://ggcity.org/planning/general-plan>

California Geological Survey (CGS). 1994. Open File Report 94-15: Generalized Mineral Land Classification of Orange County, California. Plate 1. Accessed: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR\\_94-15/OFR\\_94-15\\_Plate\\_1.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_94-15/OFR_94-15_Plate_1.pdf)

California Department of Conservation Mineral Land Classification Map Anaheim Quadrangle. Accessed: [ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR\\_143/PartIII/Plate\\_3-18.pdf](ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_143/PartIII/Plate_3-18.pdf)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>13. NOISE.</b> Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The discussion below is based on the Noise Impact Study, 2020. Prepared by MD Acoustics, LLC, included as Appendix F.

### Noise Element of the General Plan

The City's General Plan Noise Element includes a compatibility matrix (Table 7-1) to determine if new land uses are compatible with the existing noise environment. The table identifies noise environments that are less than 60 dBA CNEL to be normally compatible with low density and single-family residential uses; and noise environments that are less than 70 dBA CNEL to be normally compatible with commercial retail/restaurant development, such as the proposed project.

### Municipal Code

GGMC Section 8.47.040 outlines the City's exterior noise limits as it relates to stationary noise sources. The residential and commercial limits are listed below:

- Residential Uses: 55 dBA between 7:00 a.m. and 10:00 p.m.  
50 dBA between 10:00 p.m. and 7:00 a.m.
- Commercial Uses: 70 dBA anytime

GGMC Section 8.47.050(C) states that the following criteria be used whenever the ambient noise level exceeds the City's standards:

1. The noise standard for a cumulative period of more than 30 minutes in any hour;
2. The noise standard plus five dB(A) for a cumulative period of more than 15 minutes in any hour;
3. The noise standard plus 10 dB(A) for a cumulative period of more than five minutes in any hour;
4. The noise standard plus 15 dB(A) for a cumulative period of more than one minute in any

- hour; or
5. The noise standard plus 20 dB(A) for any period of time.

Based on these criteria and GGMC Section 8.47.040 that identifies an ambient base noise level of 55 dBA for residential uses during the daytime hours (7:00 a.m. to 10:00 p.m.) when construction activity would take place. Therefore, the base anytime maximum noise level limit (such as during construction activities) is equal to 75 dBA Leq for residential uses.

Also, for commercial uses, GGMC Section 8.47.040 identifies an ambient base noise level of 70 dBA during the daytime hours (7:00 a.m. to 10:00 p.m.) when construction activity would take place. Therefore, the base anytime maximum noise level limit (such as during construction activities) is equal to 90 dBA Leq for commercial uses.

GGMC Section 8.47.060(d) Construction of Buildings and Projects, states that it is unlawful for any person within a residential area, or within a radius of 500 feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures, or projects, or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist, or any other construction type device between the hour of 10:00 p.m. of one day and 7:00 a.m. of the next day in such a manner that a person of normal sensitiveness, as determined utilizing the criteria established in GGMC Section 8.47.050(b), is caused discomfort or annoyance unless such operations are of an emergency nature.

### **Federal Transit Administration**

The *Transit Noise and Vibration Impact Assessment* (2018) provide thresholds for increases in ambient noise from vehicular traffic based on increases to ambient noise. An impact would occur if existing noise levels at noise-sensitive land uses (e.g. residential, etc.) are less than 60 dBA Ldn and the project creates an increase of 3 dBA or greater project-related noise level increase; or if existing noise levels range from 60 to 65 dBA Ldn and the project creates 2 dBA or greater noise level increase. Noise level increase of 1 dBA or less would not result in an impact

### **Caltrans Transportation and Construction Vibration Guidance Manual**

The City does not have vibration standards that are applicable to the proposed project, hence, California Department of Transportation's (Caltrans) Transportation and Construction Vibration Guidance Manual guidelines are used as a screening tool for assessing the potential for adverse vibration effects related to structural damage and human perception.

Caltrans identifies a building damage vibration level threshold for older residential structures of 0.3 in/sec PPV; and a distinctly perceptible human annoyance vibration level threshold of 0.04 in/sec PPV at nearby sensitive receiver locations.

### **Existing Noise Levels**

As described previously, the project site is located within a commercially developed area and the closest sensitive noise receptors are the residences located to the south/southwest of the site. The Noise Impact Study evaluates the closest receptor locations listed below:

- R1: Receptor 1 is the closest residential unit located approximately 150 feet south/southwest of the site.
- R2: Receptor 2 is the commercial use adjacent to the east of the site.
- R3: Receptor 3 is the commercial use adjacent to the west of the site.

- R4: Receptor 4 is the commercial use 125 feet north of the site, across Chapman Avenue.
- R5: Receptor 5 is the proposed outside plaza/patio on the site.
- R6: Receptor 6 is the church located approximately 300 feet south of the site.

Existing noise volumes in the project vicinity are largely generated by vehicular noise along the arterial roadways. Due to reduced traffic conditions resulting from COVID-19 related state-wide lockdown, the City's traffic count data is used to identify the typical existing noise environment. The noise from Chapman Avenue and Brookhurst Street traffic was modeled using the FHWA Traffic Noise Model and the City traffic counts from 2018 with a 1% growth rate each year to project 2020 average daily traffic (ADT).

The estimated ADT in 2020 is 19,382 for Chapman Avenue and 23,870 for Brookhurst Street. Based on this, the existing noise levels on the site where proposed outside plaza/patio area would be located are 67 dBA Leq in the daytime, 59 dBA Leq at night, and 68 dBA Ldn. In addition, the average noise levels at the closest receptor locations range from 52 dBA Leq and 65 dBA Leq in the daytime and between 45 dBA Leq and 59 dBA Leq in the nighttime, as shown on Table N-1.

**Table N-1 Existing Ambient Noise Levels at Closest Receptors**

Receptor	Existing Ambient Noise Level (dBA, Leq)	
	Day	Night
1	52	45
2	60	53
3	58	52
4	64	58
5	65	59
6	53	47

Source: Noise Impact Study, Appendix F.

- a) **Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

#### **Less Than Significant Impact.**

##### **Construction**

Noise generated by construction equipment would include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. Construction is expected to occur in the following stages: demolition, excavation and grading, building construction, architectural coating, paving. Noise levels for the loudest equipment used for construction is provided in Table N-2.

**Table N-2: Construction Equipment Noise Levels**

Equipment	Noise Levels (dBA) at 50 Feet
Compactors (Rollers)	73 - 76
Front Loaders	73 - 84
Backhoes	73 - 92
Tractors	75 - 95
Scrapers, Graders	78 - 92
Pavers	85 - 87
Trucks	81 - 94
Concrete Mixers	72 - 87



Equipment	Noise Levels (dBA) at 50 Feet
Concrete Pumps	81 - 83
Cranes (Movable)	72 - 86
Cranes (Derrick)	85 - 87
Pumps	68 - 71
Generators	71 - 83
Compressors	75 - 86
Saws	71 - 82
Vibrators	68 - 82

Source: Noise Impact Study, Appendix F.

Per GGMC Section 8.47.060(d), construction activities are limited to occur between the hours of 7:00 a.m. and 10:00 p.m., within 500 feet of a residential area. The proposed project's construction activities would occur pursuant to these regulations, which is included as PPP N-1.

The construction noise from the proposed project would occur over a 14-month period and be temporary in nature as the operation of each piece of construction equipment would not be constant throughout the construction day, and equipment would be turned off when not in use. During operation of construction equipment, power levels vary between one or two minutes of full power operation followed by three or four minutes at lower power settings which results in a range of noise levels. The construction equipment would include a combination of trucks, power tools, concrete mixers, and portable generators.

As shown on Table N-3, construction noise at the closest residence (R1) would range from 57.4 to 70.6 dBA Leq, which would not exceed the 75 dBA Leq threshold for residential uses. Table N-2 also shows that construction noise at the adjacent commercial uses would range from 56.0 dBA to 76.1 dBA, which would not exceed the 90 dBA Leq threshold for commercial uses. Therefore, construction impacts would be less than significant, and no mitigation measures are required.

**Table N-3: Construction Noise Levels at the Nearest Receptors**

Construction Phase	R1 Residential	R2 Commercial	R3 Commercial	R4 Commercial
Demo	70.6	76.1	75.2	69.2
Site Preparation	70.3	75.9	74.9	68.9
Grading	68.2	73.7	72.8	66.8
Building Construction	70.1	75.6	74.7	68.6
Paving	70.2	75.7	74.8	68.8
Architectural Coating	57.4	63.0	62.0	56.0

Source: Noise Impact Study, Appendix F.

## Operation

**Traffic Noise.** Development of the proposed project would result in operation of a new commercial retail/restaurant shopping center, which would generate approximately 4,121 daily vehicular trips (as detailed in Table T-3 in Section 17, *Transportation*). The estimated 2020 ADT of Chapman Ave is 19,382. The project generated increase of 4,121 daily trips would result in 23,503 total ADT (as shown in Table N-4). The FHWA Traffic Noise Prediction Model identified that a noise level increase of less than 1 dB would occur, which is imperceptible; and is therefore less than significant. No mitigation measures are required.

**Table N-4: Average Daily Traffic Increase**

Existing ADTs	Project ADTs	Total Combined ADTs
19,382	4,121	23,503

Source: Noise Impact Study, Appendix F.

**Traffic Noise to On-Site Receptors.** Traffic noise from Chapman Avenue with implementation of the project was estimated by the Noise Impact Study using the FHWA Traffic Noise Model, which determined that noise levels at the proposed outdoor plaza/patio would remain at 68 dBA Ldn (average noise level over a 24-hour period), which is consistent with the existing condition and would within the General Plan Noise Element normally acceptable range of 70 dBA CNEL for commercial uses. Therefore, noise impacts to the proposed outdoor plaza/patio from traffic would be less than significant. No mitigation measures are required.

**Onsite Operational Noise.** The Noise Impact Study modeled the onsite noise that would be generated by operation of the project that includes: idling cars, doors closing, starting engine noise, shopping carts, HVAC units, delivery noise, trash compactor noise, and drive-thru speaker noise. As shown on Table N-5, the noise generated by the project in combination with the existing ambient noise volumes would result in noise levels that range between 47 to 66 dBA Leq at the receptors R1 – R6, as shown on Figure N-1, which would be below the City's Municipal Code noise limits for both daytime and nighttime.

**Table N-5: Project Operational Noise Levels**

Receptor – Land Use	Project Noise Level (dBA, Leq)		Combined Existing and Project Noise Levels (dBA, Leq)		Daytime / Nighttime Noise Limit (dBA, Leq)	dBA Change from Project Operation	
	Day	Night	Day	Night		Day	Night
1 - Residential	50	42	54	47	55 / 50	2	2
2 - Commercial	63	58	65	59	70 / 70	5	6
3 - Commercial	60	54	62	56	70 / 70	4	4
4 - Commercial	51	46	64	58	70 / 70	0	0
5 - Commercial	59	54	66	60	70 / 70	1	1
6 - Church	45	40	54	48	65 / 65	1	1

Source: Noise Impact Study, Appendix F.

In addition, Table N-5 shows that operation of the project would result in a maximum ambient noise increase of 5 dBA during the daytime and 6 dBA during the nighttime at the adjacent commercial use; a maximum ambient noise increase of 2 dBA at the closest residential unit; and a maximum ambient noise increase of 1 dBA at the church. The increases in noise volumes at the commercial uses would be noticeable, but within the City's Municipal Code noise limits. The increased noise volumes at the residential units and church would be below 3 dBA and would not be noticeable. Therefore, operation of the project would result in a less than significant impact, and no mitigation measures are required.

#### **b) Generation of excessive groundborne vibration or groundborne noise levels?**

##### **Less Than Significant Impact.**

##### **Construction**

Construction activities associated with the proposed project would require the operation of off-road equipment and trucks that are known sources of vibration. Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in

strength with distance.

Since neither the Municipal Code nor the General Plan provide a quantifiable vibration threshold, guidance from the *Transportation and Construction Vibration Guidance Manual*, prepared by Caltrans in 2013, has been utilized for this analysis, which defines the threshold of perception from transient sources such as off-road construction equipment at 0.25 inch per second peak particle velocity (PPV). Table N-6 shows the vibration levels shown in vibration velocity in decibels (VdB) that are produced from some common construction equipment that would likely be utilized during construction of the proposed project.

**Table N-6: Vibration Source Levels for Construction Equipment**

Equipment	Peak Particle Velocity at 25 feet (inches/second)	Average Vibration Level (VdB or Lv) at 25 feet
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drill	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Source: Noise Impact Study, Appendix F.

From the list of equipment shown in Table N-6, a vibratory roller with a vibration level of 0.210 inch-per-second PPV at 25 feet would be the source of the highest vibration levels of all equipment utilized during construction activities for the proposed project. This would remain below the 0.25 inch-per-second PPV threshold, as detailed above.

In addition, as shown in Table N-7, the vibration at the closest residential structure would not be perceptible and would be barely perceptible at the adjacent commercial uses. Thus, impacts would be less than significant, and no mitigation measures would be required.

**Table N-7: Construction Vibration at Closest Receptors**

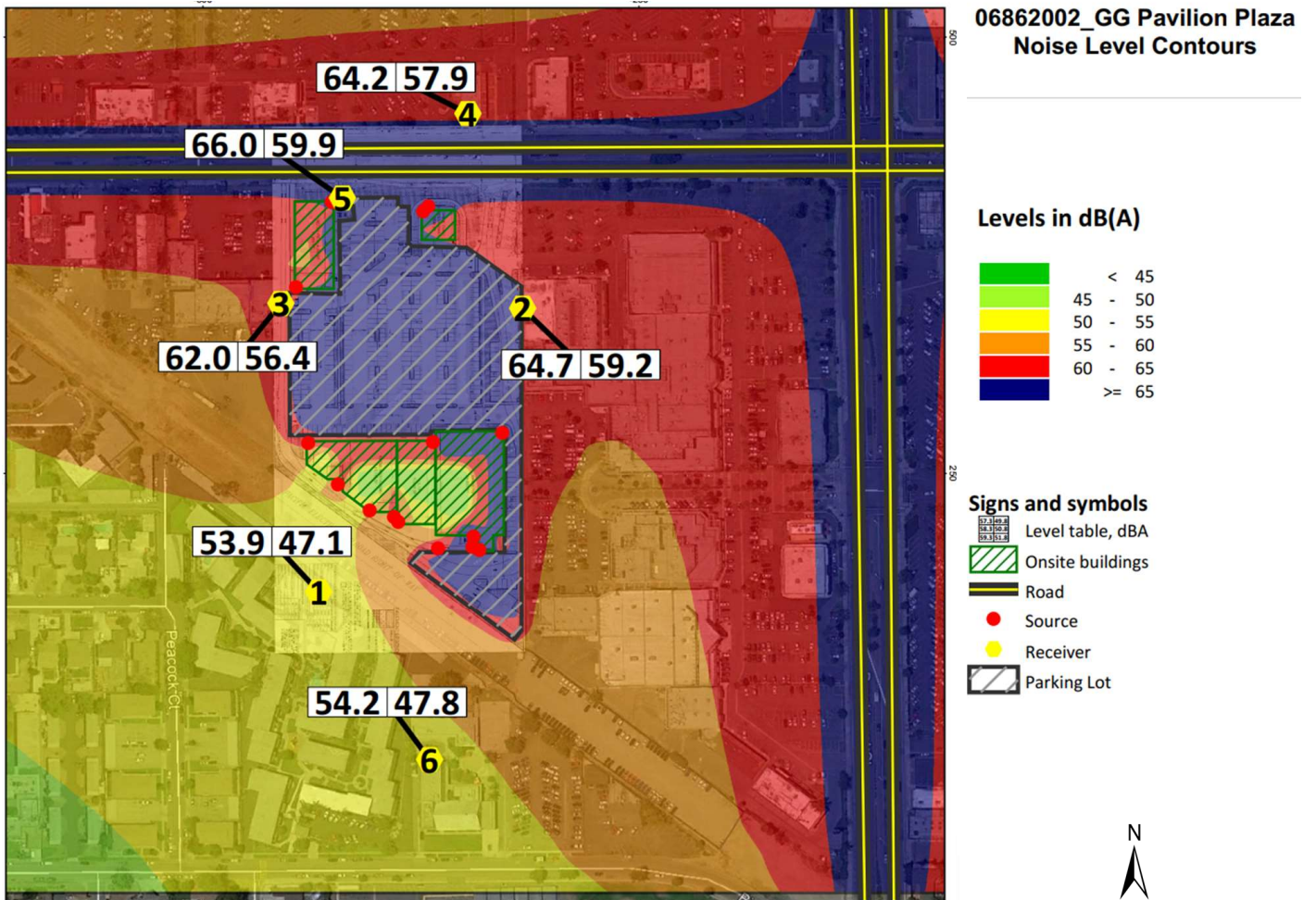
Receptor	Distance (feet)	PPV (in/sec)	Perceptible?	Building Damage? (0.1 in/sec)
1 - Residential	150	0.012	No	No
2 - Commercial	25	0.089	Barely	No
3 - Commercial	25	0.089	Barely	No
4 - Commercial	125	0.015	No	No

Source: Noise Impact Study, Appendix F.

## Operation

Operation of the proposed commercial uses would include heavy trucks for deliveries and garbage trucks for solid waste disposal. Truck vibration levels are dependent on vehicle characteristics, load, speed, and pavement conditions. However, typical vibration levels for the heavy truck activity at normal traffic speeds would be approximately 0.006 in/sec PPV, based on the FTA Transit Noise Impact and Vibration Assessment. Truck movements on site would be travelling at very low speed, so it is expected that truck vibration at nearby sensitive receivers would be less than the vibration threshold of 0.08 in/sec PPV for fragile historic buildings and 0.04 in/sec PPV for human annoyance, and therefore, would be less than significant.

# Receiver Locations and Project plus Ambient Noise Levels



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- c) **For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels?**

**No Impact.** The proposed project is not within an airport land use plan and is not within 2 miles of an airport. The closest airport to the project site is the Los Alamitos Army Air Field, which is located approximately 5.2 miles east of the project site. In addition, the Fullerton Municipal Airport is located approximately 5.8 miles to the north of the site, and John Wayne Airport is located approximately 9 miles southeast of the project site. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels related to an airport or airstrip. No impact would occur, and no mitigation would be required.

#### **Existing Plans, Programs, or Policies**

**PPP N-1: Construction Noise.** Project construction activities shall occur in compliance with Municipal Code Section 8.47.060(d), which restricts construction within 500 feet of residential uses, such as the project site, to between 7:00 a.m. and 10:00 p.m.

#### **Mitigation Measures**

None.

#### **Sources**

City of Garden Grove General Plan. Accessed: <https://ggcity.org/planning/general-plan>

City of Garden Grove Municipal Code. Accessed: <https://www.qcode.us/codes/gardengrove/>

Noise Impact Study, 2020. Prepared by MD Acoustics, LLC.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**14. POPULATION AND HOUSING.**

Would the project:

- |   |                          |                          |                                     |                                     |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| a) Induce substantial unplanned 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)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

**a) Induce substantial unplanned population growth in an area, either directly or indirectly?****Less Than Significant Impact.**

**Construction.** Construction of the project would provide short-term jobs over an approximately 14-month period. Many of the construction jobs would be temporary and would be specific to the project. This workforce would include a variety of craftspeople, such as cement finishers, ironworkers, welders, carpenters, electricians, painters, and laborers. It is anticipated that the project-related construction labor force would already be located in the project vicinity, and workers would not be expected to relocate their places of residence as a consequence of working on the project. Therefore, the project would not be expected to induce substantial population growth or demand for housing through increased construction employment. No mitigation measures are required.

**Operation.** The project would remove the 75,890 square foot building that was previously a grocery store and construct a new 65,980 square foot commercial retail/restaurant shopping center. As described previously, the project site has a General Plan land use designation of Residential/Commercial Mixed Use 2 (RC2) that allows a FAR of up to 0.50 for non-residential uses. The proposed project would develop approximately 65,980 square feet of commercial retail/restaurant uses on the 7.62-acre (331,927 square feet) site, which would result in a FAR of 0.20, and be within the allowable FAR. Therefore, the development on the project site is within the planned growth within the City's General Plan, and unplanned growth would not occur.

In addition, the project would result in long-term jobs. It is anticipated that the labor force would already be located in the project vicinity, and workers would not be expected to relocate their places of residence as a consequence of working on the project site. In 2019, the City of Garden Grove had a labor force of 81,900 and the County of Orange (County) had a labor force of 1,623,400, with approximately 2,500 and 45,100 people unemployed, respectively. The average 2019 unemployment rate was 2.4 percent for the City and 2.8 percent for the County. This identifies that available local and regional labor pool exists to serve the long-term employment needs of the proposed project. It is unlikely that a substantial number of employees would need to be relocated from outside the region to meet the need for employees, and impacts would be less than significant.



In addition, the proposed project is located in an urbanized area of the City that is already served by the existing roadways and infrastructure systems. No infrastructure would be extended or constructed to serve areas beyond the project site, and indirect impacts related to growth would not occur from implementation of the proposed project. Therefore, potential impacts related to inducement of unplanned population growth, either directly or indirectly, would be less than significant. No mitigation measures are required.

**b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?**

**No Impact.** The project site is currently developed with a vacant building that was previously used as a grocery store. No people or housing currently exists on the project site, and displacement of housing and people would not occur as a result of project implementation. Therefore, the proposed project would not result in an impact related to the displacement of housing or people, and no mitigation would be required.

**Existing Plans, Programs, or Policies**

None.

**Mitigation Measures**

None.

**Sources**

California Employment Development Department Labor Force and Unemployment Rate for Cities and Census Designated Places. Accessed: <https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html#CCD>

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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## **15. PUBLIC SERVICES.**

a) Would the project result in substantial adverse physical impacts associated with the provision 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 any of the public services:

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Result in substantial adverse physical impacts associated with the provision of 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?**  
**Police protection?**  
**Schools?**  
**Parks?**  
**Other public facilities?**

**Fire Protection – Less Than Significant Impact.** Fire protection and emergency medical services in the City has historically been provided by the Garden Grove Fire Department. However, on August 16, 2019, the Orange County Fire Authority (OCFA) took over fire suppression, emergency medical, rescue and fire prevention, and hazardous materials coordination services for the City of Garden Grove through a contract for services. As detailed in the City's 2019 adopted budget, the OCTA fire services would provide an increase in paramedic services improving response times. Within urban areas, such as the project site, the OCFA standard of coverage provides for a minimum response time of 12 minutes 80 percent of the time. Currently, county-wide response times range between five to seven minutes (OCFA 2020).

Fire protection services within the City are provided from the City's 7 fire stations. Four of the fire stations are located within 3 miles of the site, and the closest of which is 0.7 mile from the site. The existing stations within 3 miles of the site include:

- Fire Station 82 is located at 11805 Gilbert Street, which is 0.7 mile from the project site. This station is currently staffed with 3 Fire Captains, 3 Fire Apparatus Engineers, 6 Firefighters, 6 Emergency Transportation Techs, and has an ambulance and a fire engine.
- Fire Station 80 is located at 14162 Forsyth Lane, which is 2.4 miles from the project site. This station is currently staffed with 3 Fire Captains, 3 Fire Apparatus Engineers, 6 Firefighters, 6 Emergency Transportation Techs, and has an ambulance and a fire engine.
- Fire Station 81 is located at 11261 Acacia Parkway, which is 2.4 miles from the project site. This station is currently staffed with 3 Fire Captains, 3 Fire Apparatus Engineers, 6 Firefighters, 6 Emergency Transportation Techs, and has an ambulance and a fire engine.
- Fire Station 86 is located at 12232 West Street, which is 2.6 miles from the project site. This station is currently staffed with 3 Fire Captains, 3 Fire Apparatus Engineers, 6 Firefighters, 6 Emergency Transportation Techs, and has an ambulance and a fire engine.

The proposed project would remove the vacant commercial building and develop three new commercial buildings on the site. The new buildings would include new fire prevention infrastructure pursuant to current code requirements. The City has adopted the California Fire Code (Title 24, Part 9 of the California Code of Regulations) in Section 18.32.020 of the City Municipal Code, which regulates new structures related to safety provisions, emergency planning, fire-resistant construction, fire protection systems, and appropriate emergency access throughout the site. In addition, Section 18.32.050 of the City's Municipal Code requires that approved automatic sprinkler systems are installed and maintained as part of the project. The project's adherence to the existing fire code requirements would be verified as part of the City's regular permitting process.

As the site is within an area that is currently served by Fire Station 82 that is 0.7 mile from the site, there are three other City fire stations within 3 miles of the site, OCFA would be able to continue to respond within the 12-minute standard of coverage 80 percent of the time, and average response times would continue to range between five to seven minutes. Additionally, the project would be constructed pursuant to existing California Fire Code regulations that would be verified during the City's permitting process. Therefore, the project would not result in the need for new or physically altered Fire Department facilities that could cause significant environmental impacts. Therefore, the project would result in less than significant impacts related to fire protection services and no mitigation measures are required.

**Police Protection – Less Than Significant Impact.** The Garden Grove Police Department provides police services to the project area. The Police Department headquarters is located at City Hall, 11301 Acacia Parkway, which is approximately 2.5 miles from the project site. The City's adopted budget for the 2020-2021 shows that the City has 182 sworn officer positions and 70 non-sworn Police Department positions, which totals 252 total staffing allocated to the Police Department.

Redevelopment of the project site would result in commercial retail/restaurant uses and related people, goods, and money. Crime and safety issues during project construction may include: theft of building materials and construction equipment, malicious mischief, graffiti, and vandalism. During operation, the project is anticipated to generate a typical range of police service calls, such as theft, vehicle break-ins, disturbances, and vandalism. Security concerns would be addressed by providing low-intensity security lighting throughout the parking areas and buildings. Also, pursuant to the City's existing permitting process, the Police Department would review the project's site plans to ensure that design measures are incorporated appropriately to provide a safe environment.

Because the existing building on the project site is vacant, operation of the new retail stores and restaurants would generate an increase in the goods and population on the project site, and an incremental increase in demands for law enforcement services. However, the project would include security systems and lighting and the site is located within a commercial area that already receives City law enforcement services. Due to the redevelopment nature of the project site that is 2.5 miles from the Police Department headquarters, within an area that is already served, the increase would not be significant when compared to the current demand levels.

Law enforcement personnel are anticipated to be able to respond in a timely manner to emergency calls from the project site. In addition, the response to calls for law enforcement services from the project site would not require construction or expansion of the Police Department headquarters facilities. Therefore, the project would not result in the need for, new or physically altered police protection facilities, and substantial adverse physical impacts associated with the provision of new or expanded facilities would be less than significant. No mitigation measures are required.

**Schools – No Impact.** The project site is located within the service area of the Garden Grove Unified School District (GGUSD), which serves a 28-square mile area with 68 schools. The proposed project does not include any residential uses that would increase population growth, generate an increased demand for school facilities, or require the construction of school facilities.

As detailed in Section 14, *Population and Housing*, although the project is anticipated to increase employment on the site, it is anticipated that the commercial retail and restaurant labor force needed would already be located in the project vicinity, and workers would not be expected to relocate their places of residence as a consequence of working on the project. Thus, the project would not generate an increase in school-aged children that would require the need for new or expanded public school services within the GGUSD. No impacts would occur, and no mitigation measures are required.

**Parks – No Impact.** According to the City's Parks, Recreation, and Open Space Element, the City currently maintains 14 parks and uses 5 public schools as additional park facilities through joint-use agreements with the GGUSD, totaling 157.1 acres of parkland throughout the City.

As described previously and detailed in Section 14, *Population and Housing*, although the project is anticipated to increase employment on the site, it is anticipated that the commercial retail and restaurant labor force needed would already be located in the project vicinity, and workers would not be expected to relocate their places of residence and use local park facilities as a consequence of working on the project.

While it is possible that project employees may visit parks and use facilities during breaks or after work hours, such visitation would not significantly affect park performance or maintenance and would not require the expansion of parks within the City. Therefore, no impacts would occur, and no mitigation measures are required.

**Other Services – No Impact.** As described previously, although the project is anticipated to increase employment on the site, it is anticipated that the commercial retail and restaurant labor force needed would already be located in the project vicinity, and workers would not be expected to relocate their places of residence and need other public services (such as public libraries and post offices, etc.) as a consequence of working on the project. Therefore, the project would not result in the need for new or physically altered facilities to provide other services, the construction of which

could cause significant environmental impacts. No impacts would occur, and no mitigation measures are required.

**Existing Plans, Programs, or Policies**

None.

**Mitigation Measures**

None.

**Sources**

City of Garden Grove Adopted Budget 2020-2021. Accessed:  
<https://ggcity.org/sites/default/files/19-21-adopted-budget.pdf>

City of Garden Grove Fire Department. Accessed: <https://ggcity.org/fire/garden-groveorange-county-fire-authority-transition>

City of Garden Grove Municipal Code. Accessed: <https://www.qcode.us/codes/gardengrove/>

City of Garden Grove Police Department Website. Accessed: <https://ggcity.org/police>

Orange County Fire Authority (OCFA 2020). About Us.  
<https://www.ocfa.org/AboutUs/FAQs.aspx>

Orange County Fire Authority Standards of Coverage. Accessed:  
[https://www.ocfa.org/Uploads/Orange%20County%20Fire%20Authority%20SOC\\_FINAL.pdf](https://www.ocfa.org/Uploads/Orange%20County%20Fire%20Authority%20SOC_FINAL.pdf)

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>16. RECREATION.</b>				
a) Would the project 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that physical deterioration of the facility would be accelerated?**

**No Impact.** As described previously, although the project is anticipated to increase employment on the site, it is anticipated that the commercial retail and restaurant needed labor force would already be located in the project vicinity, and workers would not be expected to relocate their places of residence and use local park and recreation facilities as a consequence of working on the project. While it is possible that project employees may visit parks and recreation facilities during breaks or after work hours, such visitation would not result in substantial physical deterioration of the facility. Therefore, no impacts would occur, and no mitigation measures are required.

**b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

**No Impact.** The project would redevelop the project site for commercial retail and restaurant uses and does not include a park or recreation facility. Also, as described previously, although the project is anticipated to increase employment on the site, it is anticipated that the commercial retail and restaurant needed labor force would already be located in the project vicinity, and substantial additional users of the existing park and recreation facilities in the City would not occur. Therefore, the proposed project would not require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No impacts would occur, and no mitigation measures are required.

**Existing Plans, Programs, or Policies**

None.

**Mitigation Measures**

None.

### **Sources**

City of Garden Grove Municipal Code. Accessed at: <https://www.qcode.us/codes/gardengrove/>



	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>17. TRANSPORTATION.</b> Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The discussion below is based on the Traffic Impact Analysis (TIA) prepared by EPD Solutions, 2020 (EPD 2020) included as Appendix G, and the CalEEMod Emissions Summary, prepared by Vince Mirabella (AQ 2020), included as Appendix A.

### Traffic Thresholds

Senate Bill (SB) 743 was signed by Governor Brown in 2013 and required the Governor's Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to LOS for evaluating Transportation impacts. SB743 specified that the new criteria should promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks and a diversity of land uses. The bill also specified that delay-based Level of Service (LOS) could no longer be considered an indicator of a significant impact on the environment. However, an LOS traffic analysis was prepared, as requested by the City, to identify if the proposed project would in an impact related to the General Plan identified LOS thresholds, which is included for informational and public disclosure purposes.

**General Plan LOS Threshold:** As described in the City of Garden Grove General Plan Circulation Element, LOS D is the lowest acceptable Level of Service (LOS) for peak hour intersection volumes in the City. Thus, the LOS threshold is LOS D. As detailed in the TIA prepared for the project, an impact would occur if the project causes:

- An intersection operating at an acceptable LOS D or better to degrade to an unacceptable LOS E or F; or
- Increase of 0.01 or greater at an intersection already operating at unacceptable LOS E or F.

**VMT Threshold:** CEQA Guidelines Section 15064.3 - Determining the Significance of Transportation Impacts, provides lead agencies with the discretion to choose the most appropriate methodology and thresholds for evaluating VMT. The City of Garden Grove Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment was adopted by the City in

July of 2020 and provides screening thresholds to identify projects that would have a less than significant impact on VMT, which include being within a Transit Priority Area, being within a low traffic analysis zone (TAZ) or being a local-serving retail project.

### **Traffic Study Area and Existing Conditions**

**Arterial Roadways:** The project site is adjacent to Chapman Avenue, which provides access to the site. In addition, Brookhurst Street is an arterial roadway that provides access to the project vicinity. The characteristics of each roadway are discussed below:

- **Chapman Avenue** is classified as a Primary Arterial and as a Designated Truck Route in the City's General Plan Circulation Element. Chapman Avenue is a four-lane divided roadway except at the project site where it is a six-lane divided roadway with a posted speed limit of 40 miles per hour (MPH). There are sidewalks on both sides of the roadway. Transit service is provided along Chapman Avenue by OC Bus Route 54 with service every 15 minutes during the peak hour.
- **Brookhurst Street** is classified as a Major Arterial and as a Designated Truck Route in the City's General Plan Circulation Element. Brookhurst Street is a six-lane divided roadway with a posted speed limit of 45 MPH. There are sidewalks on both sides of the roadway. Transit service is provided along Brookhurst Street by OC Bus Route 35 with service every 20 minutes during the peak hour.

**Study Area Intersections:** The following 11 intersections (shown on Figure T-1) are included in the traffic study area:

1. Brookhurst Street/Orangewood Avenue
2. Magnolia Street/Chapman Avenue
3. Gilbert Street/Chapman Avenue
4. Promenade Lane/Chapman Avenue
5. Covey Way/Chapman Avenue
6. Brookhurst Street/Chapman Avenue
7. Nutwood Street/Chapman Avenue
8. Euclid Street/Chapman Avenue
9. Brookhurst Street/Pavilion
10. Brookhurst Street/Bixby Avenue
11. Brookhurst Street/Lampson Avenue

At the time the Traffic Impact Analysis was prepared for the project, local schools and business were temporarily closed because of the COVID 19 pandemic. As a result, existing traffic counts could not be collected because traffic volumes would have been artificially low due to the stay-at-home order. Thus, 2017 and 2018 traffic volumes that were collected by the City were utilized. Existing 2020 volumes were developed by applying a growth rate of 1 percent per year<sup>2</sup> to account for growth occurring between the count data and 2020.

As shown in Table T-1, all of the study intersections currently operate at satisfactory a LOS D or better during the weekday a.m. and p.m. peak hours. The volume/capacity (v/c) ratios shown in the following tables identify the degree of saturation of an intersection and the sufficiency of an intersection to accommodate the vehicular demand, which is identified as LOS. A v/c ratio between 0.81 and 0.90 equates to an LOS of D.

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<sup>2</sup> As determined by the City based on average traffic volume growth.

**Table T-1: Existing Peak Hour Levels of Service**

Intersection	AM Peak		PM Peak	
	V/C	LOS	V/C	LOS
1. Brookhurst St/Orangewood Ave	0.539	A	0.552	A
2. Magnolia St/Chapman Ave	0.780	C	0.822	D
3. Gilbert St/Chapman Ave	0.518	A	0.626	B
4. Promenade Ln/Chapman Ave	0.321	A	0.442	A
5. Covey Way/Chapman Ave	0.315	A	0.429	A
6. Brookhurst St/Chapman Ave	0.678	B	0.722	C
7. Nutwood St/Chapman Ave	0.602	B	0.562	A
8. Euclid St/Chapman Ave	0.829	D	0.754	C
9. Brookhurst St/Pavillion Way	0.346	A	0.479	A
10. Brookhurst St/Bixby Ave	0.425	A	0.464	A
11. Brookhurst St/Lampson Ave	0.529	A	0.622	B

Source: EPD 2020, Appendix G.

- a) **Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

### Construction

**Less Than Significant Impact.** Construction activities associated with the project would generate vehicular trips from construction workers traveling to and from the project site and delivery and hauling of construction supplies to, and debris and soil export from, the project site. As shown in Table T-2, the demolition phase of construction would generate the most trips.

**Table T-2: Construction Vehicle Trips**

Activity	Trips per Day		Total Trips
	Worker	Vendor	Haul
Demolition	15	0	1,815
Site Preparation	18	0	0
Grading	15	0	375
Building Construction	123	11	0
Paving	15	0	0
Architectural Coating	25	0	0

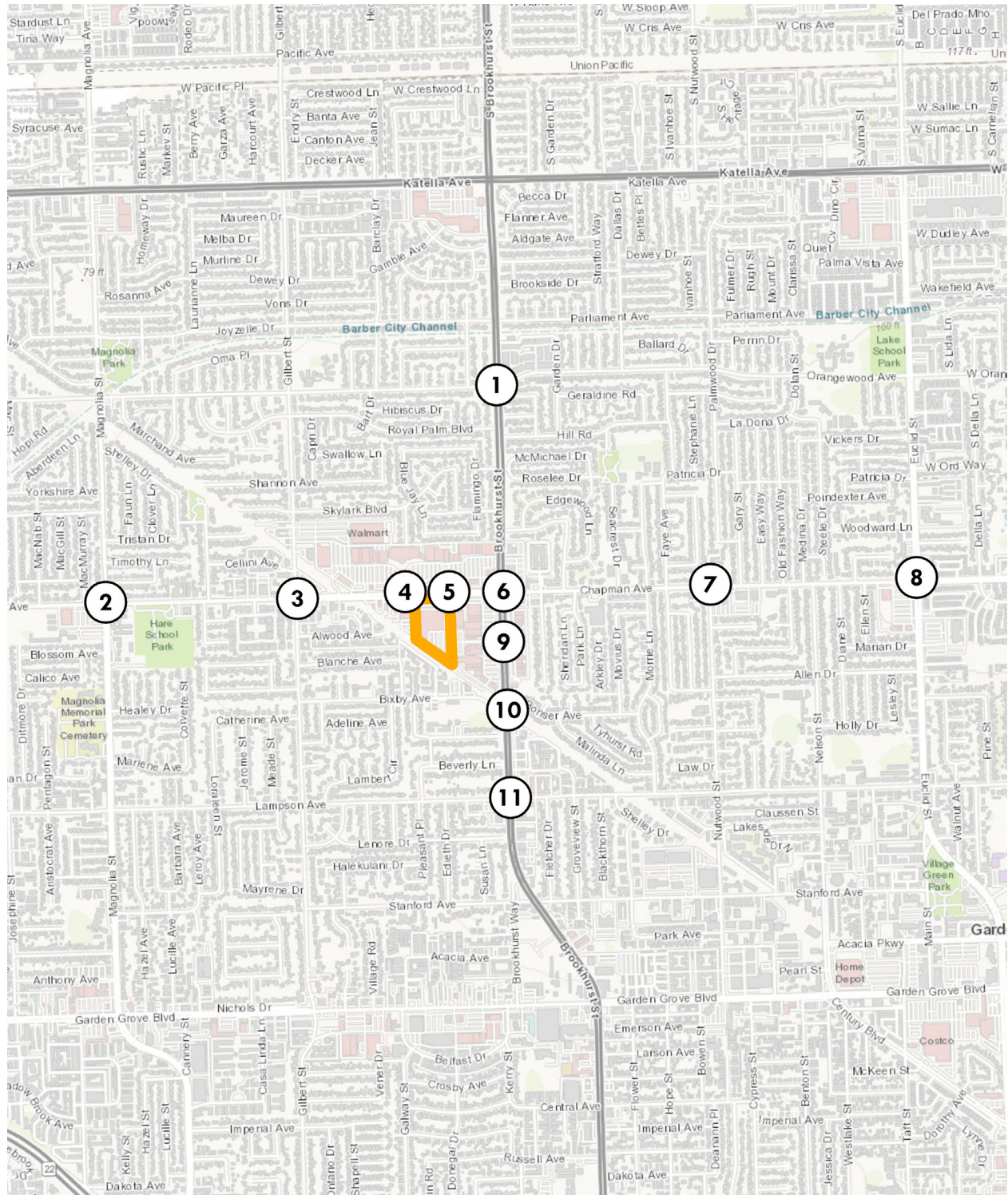
Source: AQ 2020, Appendix A.

As detailed in Table 4, *Construction Schedule*, of the Project Description, demolition would occur over 20 working days. The total haul of 1,815 trips over the 20-day demolition period equates to approximately 91 truck haul trips per day, plus 15 worker trips per day. Grading activity would require a total of 375 trips that would also occur over a 20-day work period, which would result in approximately 19 truck haul trips per day plus 15 worker trips per day. The greatest number of construction trips would occur during the building construction phase.

As shown on Table T-2, building construction would generate 123 worker trips, plus 11 vendor trips per day, which would result in a total of 134 trips per day that would occur during the 230 working day building construction phase of project development. Should all of the workers and vendors arrive and leave the site during the AM and PM peak hours, the 123 worker trips would result 62



# Traffic Study Intersections



**Project Site**



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inbound trips during the AM peak hour and 62 outbound trips during the PM peak hour; and the 11 vendor trips would result in 3 inbound and 3 outbound trips during the AM peak hour, and 3 inbound and 3 outbound trips during the PM peak hour. In total, the maximum construction traffic would consist of 65 inbound trips and 3 outbound trips during the AM peak hour, and 3 inbound trips and 65 outbound trips during the PM peak hour. The construction related trips would generally travel from SR-22 and Brookhurst Street to Chapman Avenue to access the project site.

As detailed below, operation of the project would result in 4,121 new daily trips, with 181 a.m. peak hour trips, and 315 p.m. peak hour trips. The 134 trips per day, with 68 trips in the AM and PM peak hours during maximum construction activities would be much less than what would occur during operation, which result in a less than significant impact. Therefore, the fewer trips during construction would also be less than significant. No mitigation measures are required.

### Operation

**Less Than Significant Impact.** The proposed project would redevelop the project site with a new 65,980 square foot commercial retail/restaurant shopping center. However, the Traffic Impact Analysis assumed a slightly greater build out of 66,080 square feet; and therefore, assumes slightly more traffic would result from the project, which provides a conservative analysis of potential traffic impacts.

The project trip generation was calculated using trip rates from the Institute of Transportation Engineers, *Trip Generation 10<sup>th</sup> Edition*, 2017. As shown in Table T-3, development of 66,310 square feet of retail and commercial development would generate approximately 4,121 daily trips including 181 trips during the AM peak hour and 315 trips during the PM peak hour.

**Table T-3: Project Trip Generation**

Land Use		Units	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
<u>Proposed Project Trip Rate</u>									
Supermarket <sup>1</sup>		TSF	106.78	2.29	1.53	3.82	4.71	4.53	9.24
Shopping Center <sup>2</sup>		TSF	37.75	0.58	0.36	0.94	1.83	1.98	3.81
Quality Restaurant <sup>3</sup>		TSF	83.84	-	-	-	5.23	2.57	7.80
Fast-Food Restaurant with Drive-Through Window <sup>4</sup>		TSF	470.95	20.50	19.69	40.19	16.99	15.68	32.67
<u>Proposed Project Trip Generation</u>									
Sprouts Supermarket	24.605	TSF	2,627	56	38	94	116	111	227
ULTA Retail	10.64	TSF	402	6	4	10	19	21	40
Retail (AM)/Restaurant (Daily, PM) <sup>5</sup>	27.335	TSF	2,292	16	10	26	143	70	213
Restaurant Pass-By Trips (43% PM) <sup>6</sup>			-986	-	-	-	-61	-30	-91
Drive Through Restaurant	3.5	TSF	1,648	72	69	141	59	55	114
Restaurant Pass-By Trips (49% AM 50% PM) <sup>6</sup>			-824	-35	-34	-69	-30	-28	-58
Total Trip Generation			5,159	115	87	202	246	199	445
Internal Capture <sup>7</sup>			-1,038	-12	-9	-21	-72	-58	-130
<b>Total Net Trip Generation</b>			<b>4,121</b>	<b>103</b>	<b>78</b>	<b>181</b>	<b>174</b>	<b>141</b>	<b>315</b>

Source: EPD 2020, Appendix G.

TSF = Thousand Square Feet

<sup>1</sup> Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition*, 2017. Land Use Code 850 - Supermarket.

<sup>2</sup> Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition*, 2017. Land Use Code 820 - Shopping Center.

<sup>3</sup> Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition*, 2017. Land Use Code 931 - Quality Restaurant.

<sup>4</sup> Trip rates from the Institute of Transportation Engineers, *Trip Generation, 10th Edition*, 2017. Land Use Code 934 - Code Fast-Food Restaurant with Drive-Through Window.

<sup>5</sup> Undefined in the site plan so AM Trips utilized the Shopping Center Rate and the Daily and PM Trips utilized the Quality Restaurant rate to capture the higher potential impact of both uses.

<sup>6</sup> Pass-By Trip Percentage from the Institute of Transportation Engineers, *Trip Generation Handbook*, 3rd Edition, 2014.

<sup>7</sup> Internal Capture calculation for the Supermarket and Restaurants (no credit taken for retail shopping center) from the Transportation Research Board, NCHRP Report 684, Enhancing Internal Trip Capture Estimation for Mixed-Use Developments, 2011.

**Existing Plus Project.** An intersection operations analysis was conducted using the Intersection Capacity Utilization (ICU) methodology that calculates the v/c ratios at a signalized intersection. The calculations of the existing plus project weekday a.m. and p.m. peak hour conditions with operation of the proposed project are shown in Table T-4. As indicated, all study intersections are forecast to continue to operate at a satisfactory LOS D or better (a v/c ratio of less than 0.90) during the weekday a.m. and p.m. peak hours with the addition of project traffic. Therefore, impacts would be less than significant in the existing plus project condition, and no mitigation measures are required.

**Table T-4: Existing Plus Project Conditions**

Intersection		Existing				Existing plus Project				Change in V/C		Impact?	
		AM Peak		PM Peak		AM Peak		PM Peak				AM	PM
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS				
1.	Brookhurst St/ Orangewood Ave	0.539	A	0.552	A	0.546	A	0.560	A	0.007	0.008	No	No
2.	Magnolia St/ Chapman Ave	0.780	C	0.822	D	0.785	C	0.836	D	0.005	0.014	No	No
3.	Gilbert St/ Chapman Ave	0.415	A	0.475	A	0.420	A	0.484	A	0.005	0.009	No	No
4.	Promenade Ln/ Chapman Ave	0.321	A	0.442	A	0.334	A	0.455	A	0.013	0.013	No	No
5.	Covey Way/ Chapman Ave	0.315	A	0.429	A	0.351	A	0.462	A	0.036	0.033	No	No
6.	Brookhurst St/ Chapman Ave	0.678	B	0.722	C	0.692	B	0.747	C	0.014	0.025	No	No
7.	Nutwood St/ Chapman Ave	0.602	B	0.562	A	0.609	B	0.573	A	0.007	0.011	No	No
8.	Euclid St/ Chapman Ave	0.829	D	0.754	C	0.834	D	0.768	C	0.005	0.014	No	No
9.	Brookhurst St/ Pavillion Way	0.346	A	0.479	A	0.384	A	0.499	A	0.038	0.020	No	No
10.	Brookhurst St/Bixby Ave	0.425	A	0.464	A	0.428	A	0.472	A	0.003	0.008	No	No
11.	Brookhurst St/ Lampson Ave	0.529	A	0.622	B	0.532	A	0.631	B	0.003	0.009	No	No

Source: EPD 2020, Appendix G.

**Opening Year 2023 Plus Project.** Forecast traffic volumes for the Opening Year conditions were developed by applying a growth rate of 1 percent per year<sup>3</sup> to the existing condition volumes to escalate counts from the count data to 2023 and adding traffic from three cumulative development projects. A trip generation analysis for the cumulative projects (those identified by the City as approved and not yet built and those under review) was prepared.

As shown in Table T-5, all of the intersections would operate at LOS D or better (a v/c ratio of less than 0.90) in the Opening Year plus Project Condition. Therefore, impacts would be less than significant, and no mitigation measures are required.

<sup>3</sup> ibid



**Table T-5: Opening Year (2023) Plus Project Conditions**

Intersection	Opening Year				Opening Year plus Project				Change In V/C		Impact?	
	AM Peak		PM Peak		AM Peak		PM Peak		Change In V/C		AM	PM
	V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS	AM	PM		
1. Brookhurst St/ Orangewood Ave	0.553	A	0.574	A	0.560	A	0.582	A	0.007	0.008	No	No
2. Magnolia St/ Chapman Ave	0.804	D	0.859	D	0.809	D	0.873	D	0.005	0.014	No	No
3. Gilbert St/ Chapman Ave	0.426	A	0.494	A	0.431	A	0.502	A	0.005	0.008	No	No
4. Promenade Ln/ Chapman Ave	0.329	A	0.474	A	0.338	A	0.487	A	0.009	0.013	No	No
5. Covey Way/ Chapman Ave	0.323	A	0.448	A	0.348	A	0.489	A	0.025	0.041	No	No
6. Brookhurst St/ Chapman Ave	0.697	B	0.749	C	0.711	C	0.773	C	0.014	0.024	No	No
7. Nutwood St/ Chapman Ave	0.619	B	0.585	A	0.625	B	0.596	A	0.006	0.011	No	No
8. Euclid St/Chapman Ave	0.853	D	0.788	C	0.858	D	0.801	D	0.005	0.013	No	No
9. Brookhurst St/ Pavillion Way	0.355	A	0.498	A	0.381	A	0.518	A	0.026	0.020	No	No
10. Brookhurst St/Bixby Ave	0.436	A	0.483	A	0.439	A	0.491	A	0.003	0.008	No	No
11. Brookhurst St/ Lampson Ave	0.544	A	0.646	B	0.546	A	0.655	B	0.002	0.009	No	No

Source: EPD 2020, Appendix G.

As described previously, sidewalks currently exist on both sides of Chapman Avenue and Brookhurst Street. The proposed project would provide for pedestrian circulation by constructing a new 8-foot-wide sidewalk along Chapman Avenue, which would connect to the onsite pedestrian walkways that provide pedestrian access between each of the proposed buildings. The project would provide for pedestrian circulation; and therefore, impacts related to pedestrian facilities would not occur.

Bicycle lanes are located along both sides of Brookhurst Street. The project does not involve changes to the existing bicycle lanes and includes installation of five bicycle racks at store/restaurant entrances to encourage bicycle transportation. As a result, the project would not result in impacts related to bicycle circulation.

Transit service is provided along Chapman Avenue by OC Bus Route 54 with service every 15 minutes during the peak hour; and service along Brookhurst Street is provided by OC Bus Route 35 with service every 20 minutes during the peak hour. The existing bus services would provide efficient transportation to and from the site for both employees and customers and has the potential to reduce vehicle miles traveled. In addition, because the project is located along existing bus routes and within an existing commercial corridor it would not result in the need to expand the existing transit service area. Overall, impacts related to transit services would not occur from implementation of the proposed project.

**b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

**Less Than Significant Impact.** The City of Garden Grove Traffic Impact Analysis Guidelines for VMT was adopted by the City in July of 2020 and provides screening thresholds to identify projects that would have a less than significant impact on VMT, which include meeting specific criteria within



a Transit Priority Area, being within a low traffic analysis zone (TAZ), or being a local serving retail project. As described below, the project is located within a Transit Priority Area and consists of a local serving retail project. The project's consistency with the screening thresholds is detailed below.

**Transit Priority Area.** The City's VMT screening thresholds identify that projects in a Transit Priority Area, which are locations within 0.5 mile of an existing major transit stop (an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods) or an existing stop along a high-quality transit corridor would have a less than significant impact on VMT. However, the City guidelines state that the project may not meet the screening threshold if the following project or location specific criteria are not met:

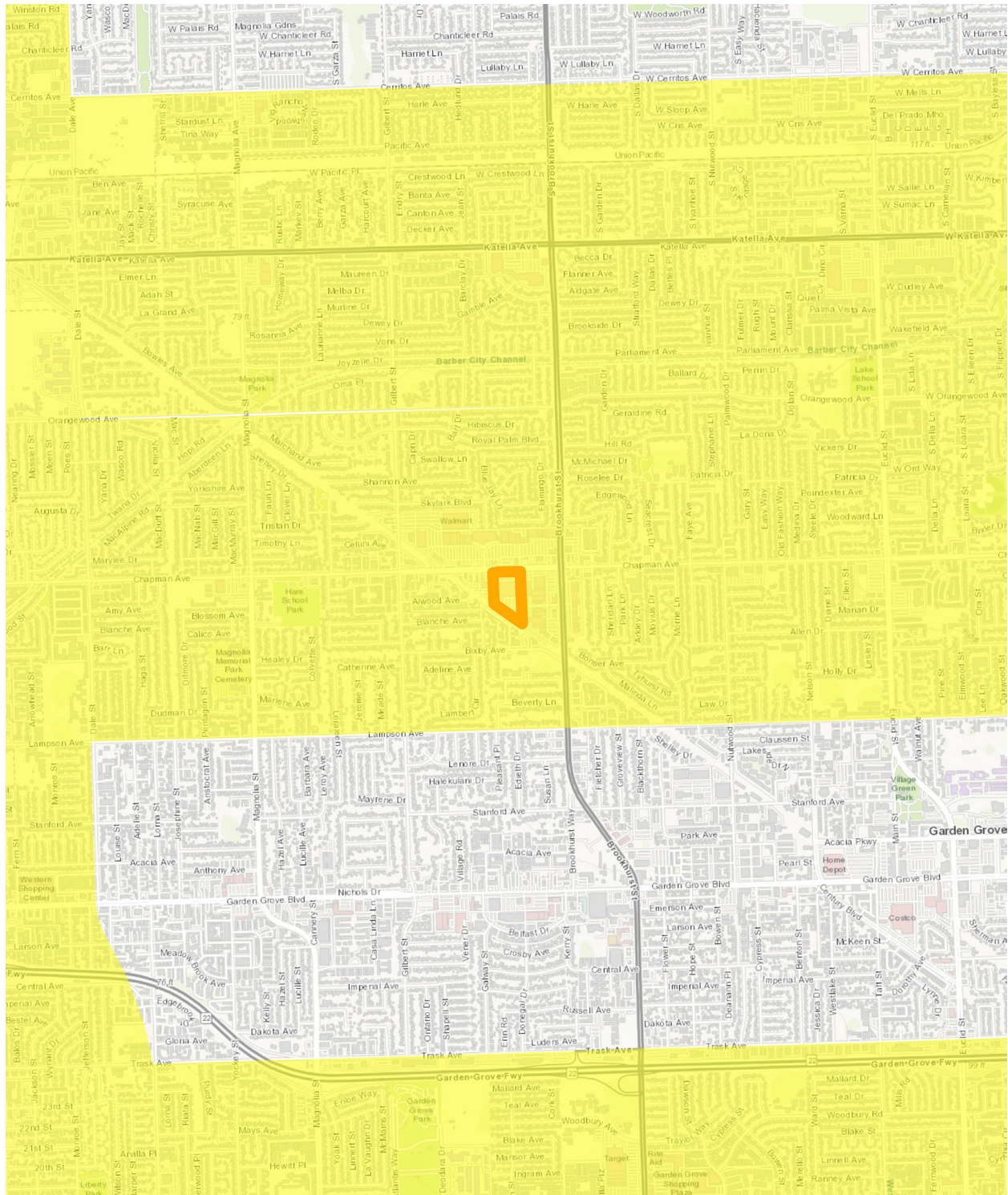
- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate or high-income residential units.

As shown in Figure T-2, the project site is located in a high-quality transit corridor. The proposed project does not involve removing affordable residential units, is consistent with the Sustainable Communities Strategy, existing zoning designation, General Plan land use designation (as detailed previously herein), and does not include more parking than required. However, the project does have a FAR of less than 0.75. Therefore, the project meets some, but not all, of the Transit Priority Area screening criteria.

**Local Serving Retail Projects.** The City's VMT screening thresholds identify that "local-serving retail development tends to shorten trips and reduce VMT". The screening thresholds specifies that retail development includes stores smaller than 50,000 square feet, such as gas stations, banks, restaurants, and shopping centers.

The project site is zoned as Neighborhood Mixed Use and has a General Plan land use designation of Residential/Commercial Mixed Use. These uses are intended to serve the local area. To further demonstrate the local-serving nature of the project, the existing locations of the two anchor tenants (Sprouts Market and ULTA Beauty) were examined. As shown in Figure T-4 there are two Sprouts Markets within an approximately 5-mile radius of the project and there are two ULTA Beauty stores within an approximately 4-mile radius of the project. These existing stores would remain in operation with implementation of the proposed project.

# High Quality Transit Corridor



**Project Site**

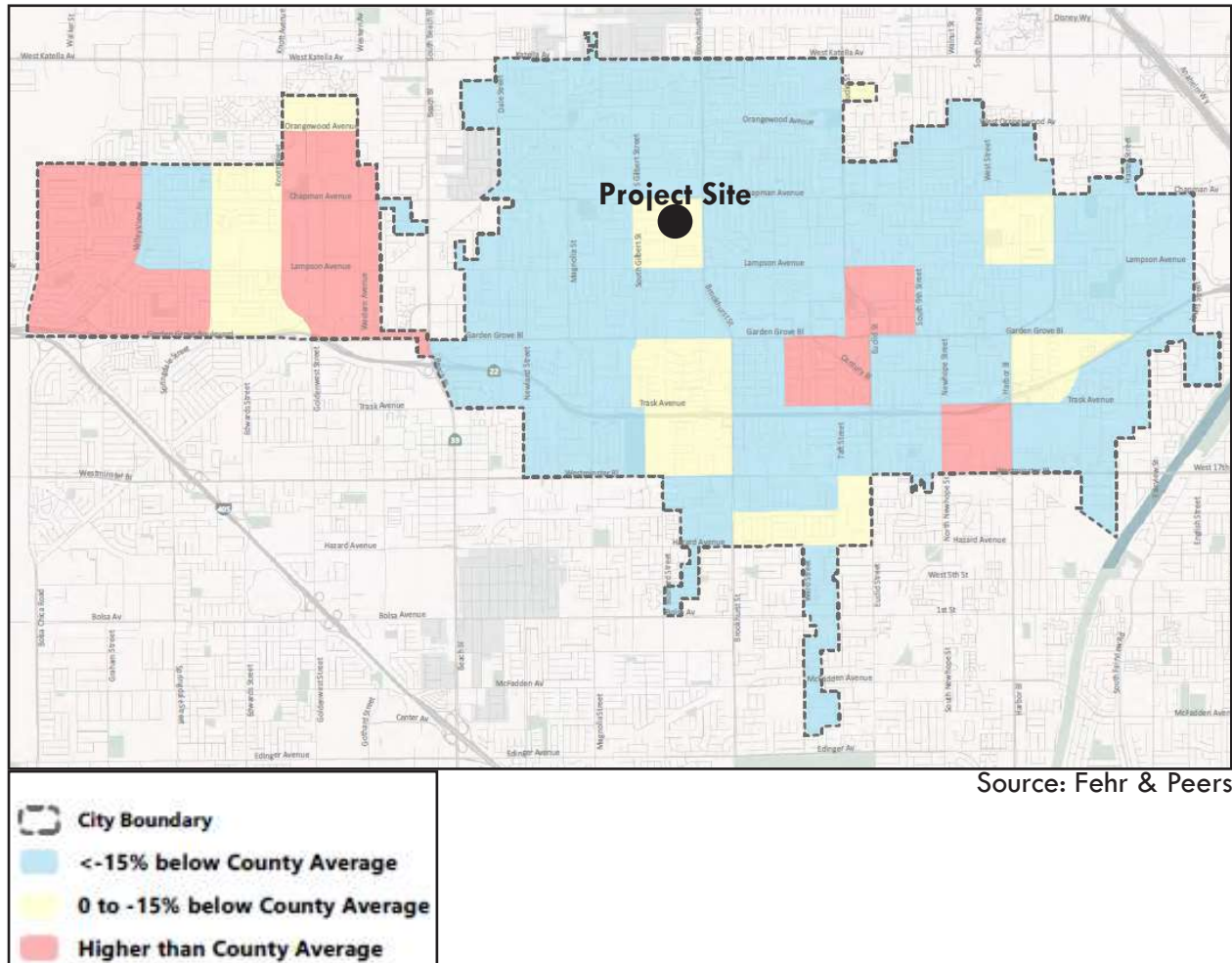


**High Quality Transit Corridor**



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# Low VMT Generating Traffic Analysis Zones



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Customers would likely travel to the closest store, therefore the farthest that customers would travel to either anchor store would likely be 2.5 miles to visit the two anchor stores, which is the midpoint between the existing and proposed Sprouts Market locations. Furthermore, the proposed project would redevelop a 75,890 square foot building to multiple smaller retail/commercial buildings, with the largest retail space 24,600 square feet. Based on the City's VMT screening thresholds, the site zoning, and General Plan land use designation, the retail/commercial uses are reasonably considered locally serving. Therefore, because the project is local serving, the project would result in a less than significant impact on VMT and no mitigation is required.

**c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Less Than Significant Impact.** The project includes development of commercial retail and restaurant uses. The project includes community type uses and does not include any incompatible uses, such as farm equipment.

**Circulation.** The proposed project area would be accessed from two driveways on Chapman Avenue. Onsite vehicular circulation would be provided by two east-west aligned drive isles that would be 28-feet and 30-feet in width, and by six north-south aligned drive isles that would be 25-feet in width. Also, truck circulation, as shown on Figure 4, directs trucks from Chapman Avenue, around the outside of the proposed parking area to the receiving area for each store. The truck drive isle around the buildings would be between 28 and 45 feet in width. Pedestrian circulation would be provided by an 8-foot-wide sidewalk along Chapman Avenue that connects to the onsite pedestrian walkways that would provide connection between each of the proposed buildings.

The project would also not increase any hazards related to a design feature. The City's construction permitting process includes review of project plans to ensure that no potentially hazardous transportation design features would be introduced by the project. For example, the onsite circulation plan would be reviewed to ensure fire engine accessibility and turn around area is provided to the fire code standards. As a result, impacts related to vehicular circulation design features would be less than significant, and no mitigation measures are required.

**Queuing.** As shown in Figure 4, *Conceptual Site Plan*, the proposed 3,500 square foot drive-thru restaurant is located adjacent to the eastern driveway access to the site. Therefore, a queuing analysis for the fast-food drive-through was prepared. The mean arrival rate ( $\lambda$ ) during the morning and evening peak hours was determined from the project trip generation as 72 vehicles during the a.m. peak hour and 59 vehicles during the p.m. peak hour. The average completion time (T) is the time that it takes for a car to enter the drive through, place the order, pick up the food and depart, was identified by the 2019 QSR Magazine Drive-Thru Study, as 238.84 seconds during breakfast and 258.28 seconds during dinner.

Based on this information the TIA determined that the average queue would be fewer than 5 vehicles during both the morning and evening peak periods, and the 90th percentile queue during the a.m. and p.m. peak periods would be 11 vehicles and 10 vehicles, respectively. The project site plan provides space for 11 vehicles to queue within the drive-through lane. Therefore, the drive-through would accommodate the 90th percentile queue. In addition, all queuing to the drive through would remain within the project site 100 percent of the time. Therefore, impacts related to queuing would be less than significant. No mitigation measures related to queuing would be required.

**d) Result in inadequate emergency access?**



**Less than Significant Impact.****Construction**

The proposed construction activities, including equipment and supply staging and storage, would occur within the project site, and would not restrict access of emergency vehicles to the project site or adjacent areas. The installation of new driveways and connections to existing infrastructure systems that would be implemented during construction of the proposed project would not require closure of Chapman Avenue. Any temporary lane closures needed for utility connections or driveway access construction would be implemented consistent with the recommendations of the California Joint Utility Traffic Control Manual (Caltrans 2014), as incorporated into a Traffic Management Plan for the project that the City requires for receipt of construction permits. The Traffic Management Plan would ensure that substantial traffic queuing along Chapman Avenue would not occur and that all construction equipment would be staged on site. Thus, implementation of the project through the City's permitting process would ensure existing regulations are adhered to and would reduce potential construction related emergency access impacts to a less than significant level. No mitigation measures are required.

**Operation**

Operation of the project would also not result in inadequate emergency access. The project driveways and internal access would be required through the City's permitting procedures to meet the City's design standards that provides adequate turning space for passenger cars, fire trucks, and delivery trucks. The project is also required to provide fire suppression facilities (e.g., hydrants and sprinklers). The fire department would review the development plans as part of the permitting procedures to ensure adequate emergency access pursuant to the requirements in Section 503 of the California Fire Code (Title 24, California Code of Regulations, Part 9), included in GGMC Section 18.32.020. As a result, impacts related to inadequate emergency access would not occur. No mitigation measures are required.

**Existing Plans, Programs, or Policies**

City of Garden Grove General Plan Circulation Element LOS thresholds discussed previously.

**Mitigation Measures**

None.

**Sources**

Traffic Impact Analysis prepared by EPD Solutions, 2020.

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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### **18. TRIBAL CULTURAL RESOURCES.**

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The discussion below is based on the Phase I Environmental Assessment Report (Phase I 2017), included as Appendix B; and the Geotechnical Engineering Report prepared by Terracon Consultants, Inc. (Geo 2020), included as Appendix C.

#### **AB 52**

The project would be required to comply with Assembly Bill 52 (AB 52) regarding tribal consultation. Chapter 532, Statutes of 2014 (i.e., AB 52), requires that Lead Agencies evaluate a project's potential to impact "tribal cultural resources." Such resources include sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are eligible for inclusion in the California Register or included in a local register of historical resources (PRC Section 21074). AB 52 also gives Lead Agencies the discretion to determine, supported by substantial evidence, whether a resource falling outside the definition stated above nonetheless qualifies as a "tribal cultural resource."

In compliance with this requirement, the City of Garden Grove sent AB 52 notification letters 9 contacts at the following 8 tribes on June 23, 2020:

- Gabrielino-Tongva Tribe
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino/Tongva Nation
- Juaneno Band of Mission Indians- Acjachemen Nation

- Torres Martinez Desert Cahuilla Indians
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Soboba Band of Luiseno Indians
- Gabrieleno Band of Mission Indians – Kizh Nation

The Gabrieleno Band of Mission Indians – Kizh Nation responded requesting consultation, provided information on the general project area's tribal cultural significance, and requested Native American monitoring.

**a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?**

**Less Than Significant Impact.** As detailed previously in Section 5, *Cultural Resources*, the project site was used for agricultural purposes prior to its development for commercial uses, which was in operation between 1960 and the mid-2000's. The project site does not include cultural resources listed/eligible for listing in the Register of Historical Resources, or in local registers. Therefore, the project would not result in impacts to historic resources that are listed or eligible for listing, and no mitigation is required.

**b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?**

**Less Than Significant Impact with Mitigation Incorporated.** The project site is developed with a commercial building. As described previously in Section 5, *Cultural Resources*, and detailed by the Geotechnical Engineering Report, the site has approximately 3 to 5 feet of fill material across the site that are likely native soils that were excavated and recompacted. As a result of the previous onsite soils disturbance, there is reduced potential for the project to impact tribal cultural resources. However, undiscovered resources could exist in the previously excavated and compacted fill soils.

Therefore, Mitigation Measure CUL-1, as listed previously in Section 5, *Cultural Resources*, has been included to provide procedures to be followed in the unlikely event that potential archaeological resources are discovered during grading, excavation, or construction activities. In addition, to avoid potential impacts to unknown buried tribal cultural resources that could be located in native fill or previously undisturbed native soils, Mitigation Measure TCR-1 has been included to provide for Native American resource sensitivity training, to provide monitoring of ground disturbing activities, and to prescribe activities should any inadvertent discoveries of tribal cultural resources be unearthed by project construction activities. Mitigation Measures CUL-1 and TCR-1 would reduce potential impacts to tribal cultural resources to a less than significant level.

Additionally, as described previously and included as PPP CUL-1, California Health and Safety Code, Section 7050.5 requires that if human remains are discovered in the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation. If the coroner determines that the remains are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Therefore, with implementation of Mitigation Measure TCR-1 and the existing regulations, impacts to TCRs would be less than significant.

### **Existing Plans, Programs, or Policies**

**PPP CUL-1: Human Remains.** California Health and Safety Code Section 7050.5. Listed previously in Section 5, Cultural Resources.

### **Mitigation Measures**

**Mitigation Measure CUL-1: Archaeological Resources.** Listed previously in Section 5, *Cultural Resources*.

**Mitigation Measure TCR-1: Native American Monitoring.** The project's grading and construction plans and specifications shall state that, prior to commencement of any ground disturbing activities, a Native American monitor approved by the Gabrielino Band of Mission Indians – Kizh Nation – the tribe that consulted on this project pursuant to Assembly Bill A52 (the “Tribe” or the “Consulting Tribe”) shall be retained for the proposed project. A copy of the executed contract shall be submitted to the City of Garden Grove Planning and Building Department prior to the issuance of any permit necessary to commence a ground-disturbing activity. The Tribe shall be contracted to conduct a Native American Indian Sensitivity Training for construction personnel prior to the start of construction activities. The training session shall include a handout and shall focus on how to identify Native American resources encountered during earthmoving activities and the procedures to be followed if resources are discovered.

The Tribal monitor will only be present on-site during the construction phases that involve ground-disturbing activities of native soils or native fill. Ground disturbing activities are defined by the Tribe as activities that may include, but are not limited to, pavement removal, potholing or auguring, grubbing, tree removals, boring, grading, excavation, drilling, and trenching, within the project area. The Tribal Monitor will complete daily monitoring logs that will provide descriptions of the day's activities, including construction activities, locations, soil, and any cultural materials identified. The on-site monitoring shall end when all ground-disturbing activities on the Project Site having the potential to impact Tribal Cultural Resources are completed, or when the Tribal Representatives and Tribal Monitor have indicated that all upcoming ground-disturbing activities at the Project Site have little to no potential for impacting Tribal Cultural Resources.

In the event that Tribal Cultural Resources are inadvertently discovered during ground-disturbing activities, work shall be halted within 50 feet of the find until it can be evaluated by a qualified archaeologist in cooperation with a Tribal monitor approved by the Consulting Tribe to determine if the potential resource meets the CEQA definition of historical (CEQA Guidelines 15064.5(a)) and/or unique resource (Public Resources Code Section 21083.2(g)), and/or a “nonunique archeological resource” that conforms with the criteria of Public Resources Code section 21074(a) (Public Resources Code section 21074(c), Public Resources Code section 21083.2(h)). Construction activities could continue in other areas.

If the resources are Native American in origin, the Consulting Tribe will retain it/them in the form and/or manner the Tribe deems appropriate, for educational, cultural and/or historic purposes. If the find is considered a “historical resource,” a “unique archaeological resource,” or a “nonunique archeological resource” that conforms with the criteria of Public Resources Code section 21074(a), the archaeologist, in cooperation with a Native American monitor, shall pursue either preservation in place or recovery, salvage and treatment of the resource. Recovery, salvage and treatment protocols shall be developed in accordance with applicable provisions of Public Resources Code

Section 21083.2 and CEQA Guidelines 15064.5 and 15126.4. If a resource, as defined above, is not Native American in origin, cannot be preserved in place or left in an undisturbed state, recovery, salvage and treatment shall be required at the project applicant's expense. All recovered and salvaged resources shall be identified and permanently preserved in an established accredited professional repository. Prior to commencement of grading activities, the Director of the City Community and Economic Development Department, or designee, shall verify that all project grading and construction plans require the Native American Sensitivity Training and the treatment of resources as specified in this mitigation measure.

### **Sources**

Geotechnical Engineering Report, April 2020. Prepared by Terracon Consultants, Inc. (Geo 2020).

Phase I Environmental Site Assessment Report (Phase I 2017), Prepared by Partner Engineering and Science, Inc., 2017

Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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**19. UTILITIES AND SERVICE SYSTEMS.**

Would the project:

a) Require or result in the relocation or construction of new or expanded water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Require or result in the relocation or construction of new or expanded water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**Less Than Significant Impact.**

**Water Infrastructure**

There are several existing water lines in Chapman Avenue, which include a 6-inch line, a 12-inch line, and a 16-inch line. The proposed project would install new water infrastructure on the project site that would connect to the existing 6-inch and 12-inch water pipelines in Chapman Avenue. The new onsite water system would convey water supplies to the proposed retail, restaurant, and landscaping areas through plumbing/landscaping fixtures that are compliant with the CalGreen requirements for efficient use of water.

The proposed project would obtain general water supplies through the existing 6-inch water line located within the Chapman Avenue rights-of-way. Additionally, separate connections would be made to the existing 16-inch line for provision of emergency fire water. The existing water lines have the capacity to provide the increased water supplies needed to serve the proposed project,

and no extensions or expansions to the water pipelines that convey water to the project site would be required.

The construction activities related to the onsite water infrastructure that would be needed to serve the proposed commercial uses are included as part of the proposed project and would not result in any physical environmental effects beyond those identified throughout this MND. For example, construction emissions for excavation and installation of the water infrastructure is included in Sections 3, *Air Quality* and 8, *Greenhouse Gas Emissions*. Therefore, the proposed project would not result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, and impacts would be less than significant. No mitigation measures are required.

### **Wastewater Infrastructure**

There are two existing sewer lines in Chapman Avenue that are 18-inches and 10-inches in diameter. The project includes installation of onsite sewer lines that would connect to the existing 10-inch sewer line in Chapman Avenue, which has adequate capacity to serve the new commercial uses on the site. The construction activities related to installation of the onsite sewer infrastructure that would serve the proposed project, are included as part of the proposed project and would not result in any physical environmental effects beyond those identified throughout this MND. For example, construction emissions for excavation and installation of the sewer infrastructure is included in Section 3, *Air Quality* and 8, *Greenhouse Gas Emissions*, and noise volumes from these activities are evaluated in Section 13, *Noise*.

In addition, as detailed below in Response C, the existing wastewater treatment plant that serves the project site has an additional capacity of 200 MGD, which would accommodate the wastewater flow from the project site. As the proposed project includes facilities to serve the proposed development and the wastewater treatment plant has capacity to serve the site, the proposed project would not result in the need for construction of other new wastewater facilities or expansions, the construction of which could cause significant environmental effects. Therefore, impacts would be less than significant, and no mitigation measures are required.

### **b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?**

**Less Than Significant Impact.** The City's Urban Water Management Plan (UWMP) describes that the City relies on 72 percent groundwater from 13 wells in the Orange County groundwater basin and 28 percent imported water from the Metropolitan Water District of Southern California. The UWMP projects that the water supply mix will remain roughly the same through 2040. The City also operates 8 storage and distribution reservoirs at 5 sites with a combined capacity of 53 million gallons (MG). The storage volume is the equivalent of more than 2 days average use and is more than adequate for peaking demands and firefighting needs (UWMP 2015).

The City's UWMP describes that water demand in 2015 was 24,049 acre-feet yearly (AFY) and based on the existing General Plan land uses and growth assumptions is projected to increase to 26,055 AFY by 2040.

The proposed 65,980 square feet of commercial retail/restaurant uses would result in an increased demand for water supplies because the existing 75,890 square foot building on the site is vacant and not currently utilizing water. However, the project site has a General Plan land use designation for Residential/Commercial Mixed Use 2 (RC2), which allows a maximum Floor Area Ratio (FAR) of

0.50 for non-residential uses. The proposed project would develop approximately 65,980 square feet of commercial retail/restaurant uses on the 7.62-acre (331,927 square feet) site, which would result in a FAR of 0.20, and be lower than the allowable FAR.

Because the 2015 UWMP identifies water supply and demands through 2040 and indicates it would be able to meet all of the anticipated water supply needs in multiple dry years, and the proposed project is consistent with the land use designations for the site with a lower than maximum FAR, the demand from the project is included in the UWMP demand projections. Therefore, the proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development (which are those consistent with the existing General Plan land use and zoning designations), during normal, dry, and multiple dry years, and impacts would be less than significant. No mitigation measures are required.

**c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

**Less than Significant Impact.** The City operates and maintains the local sewer collection pipes that feed into the Orange County Sanitation District's (OCSD) trunk sewer system to convey wastewater to OCSD's wastewater treatment plant No. 1 in Fountain Valley that has a capacity of 320 million gallons per day (MGD). In 2019, the estimated average daily flow received at the wastewater treatment plant No. 1 was 120 MGD. Thus, the plant has additional capacity of 200 MGD.

Based on OCSD's wastewater generation rate of 2,262 gallons per day per acre of low commercial area, the proposed project would generate approximately 17,236 gallons per day, which would be within the capacity of wastewater treatment plant No. 1. In addition, the flows generated by the project would replace the pre-existing flows that were generated by the existing building, which would be accommodated by the existing offsite sewer system. Therefore, impacts related to wastewater system capacity would be less than significant. No mitigation measures are required.

**d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals?**

**Less Than Significant Impact.** In 2018, a large portion of the solid waste from the City of Garden Grove, which was disposed of in landfills, went to the Frank Bowerman Sanitary Landfill (Calrecycle 2020). Due to the location of the landfill it is likely that solid waste from the project would be disposed of at this facility. The Frank Bowerman Sanitary Landfill is permitted to accept 11,500 tons per day of solid waste and is permitted to operate through 2053. In September 2019, the maximum tonnage received was 9,967 tons. Thus, the facility had additional capacity of approximately 1,533 tons per day (Calrecycle 2020).

**Construction**

Project construction would generate solid waste for landfill disposal in the form of demolition debris from the existing building and infrastructure that would be removed from the site. Demolition waste would be properly characterized as required by law and recycled or disposed of at an appropriate type of landfill for such materials. Construction waste in the form of packaging and discarded materials would also be generated by the proposed project. Utilizing a construction waste factor of 4.34 pounds per square foot (EPA 2003), demolition of the 75,890 square foot building would generate approximately 164.68 tons of waste during demolition and additional waste during construction, which would occur over a 14-month period. However, Section 5.408.1 of the existing CalGreen Building Standards Code requires demolition and construction activities to



recycle or reuse a minimum of 75 percent of the nonhazardous construction and demolition waste (included in the GGMC as Section 18.60.040 and below as PPP SW-1). Thus, the demolition and construction solid waste that would be disposed of at the landfill would be approximately 25 percent of the waste generated. Therefore, demolition activities, which would generate the most solid waste would generate approximately 41.17 tons of solid waste. As shown in Table 4 of the Project Description, demolition activities would occur over 20 working days (4 week) period. This equates to approximately 2.1 tons of debris per day.

As described above, the Frank Bowerman Sanitary Landfill had additional capacity of approximately 1,533 tons per day. Therefore, the facility would be able to accommodate the addition of 2.1 tons of waste per day during demolition of the proposed project. Thus, impacts to landfills during construction activity would be less than significant and no mitigation measures are required.

### **Operation**

The CalEEMod solid waste generation rate for the shopping center land use is 1.05 tons per square foot per year. The project includes 65,980 square feet of commercial retail/restaurant shopping center uses. Thus, operation of the project would generate approximately 69,279 tons of solid waste per year; or 1,332 tons per week. However, at least 75 percent of the solid waste is required by AB 341 to be recycled, which would reduce the volume of landfilled solid waste to approximately 333 tons per week.

As the Frank Bowerman Sanitary Landfill has additional capacity of approximately 1,533 tons per day, the solid waste generated by the project would be within the capacity of the landfill. Thus, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs and the project would not impair the attainment of solid waste reduction goals. Impacts related to landfill capacity would be less than significant. No mitigation measures are required.

### **e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

**No Impact.** The proposed project would result in new development that would generate an increased amount of solid waste. All solid waste-generating activities within the City is subject to the requirements set forth in Section 5.408.1 of the California Green Building Standards Code and the City's Municipal Code Section 18.60.040 (included as PPP SW-1) that requires demolition and construction activities to recycle or reuse a minimum of 75 percent of the nonhazardous construction and demolition waste, and AB 341 that requires diversion of a minimum of 75 percent of operational solid waste. Implementation of the proposed project would be consistent with all state regulations, as ensured through the City's development project permitting process. Therefore, the proposed project would comply with all solid waste statutes and regulations; and impacts would not occur. No mitigation measures are required.

### **Existing Plans, Programs, or Policies**

**PPP SW-1:** The City's Municipal Code Section 18.60.040, Minimum Construction and Demolition Waste Diversion Requirements. Construction projects shall reuse, recycle, or divert the minimum percentage amount of designated recyclable and reusable materials as set forth by the CALGreen (Part 11 of Title 24, California Code of Regulations) requires a minimum diversion of 75%.

**Mitigation Measures**

None.

**Sources**

California Emissions Estimator Model Appendix D Default Data Tables. Table 10.1 Solid Waste Disposal Rates. Accessed: [http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05\\_appendix-d2016-3-1.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/caleemod/upgrades/2016.3/05_appendix-d2016-3-1.pdf?sfvrsn=2)

CalRecycle Solid Waste Information System. Accessed at:  
<http://www.calrecycle.ca.gov/SWFacilities/Directory/Search.aspx>

CalRecycle Disposal Reporting System: Jurisdiction Tons by Facility. Accessed at:  
<https://www2.calrecycle.ca.gov/LGCentral/DisposalReporting/Destination/DisposalByFacility>

City of Garden Grove 2015 Urban Water Management Plan. Accessed:  
<https://ggcity.org/pdf/pw/finalgardengroveuwpjune2016.pdf>

Orange County Sanitation District Design and Construction Requirements For Sanitary Sewers. Accessed: <https://www.ocsd.com/Home/ShowDocument?id=28159>

Phase I Environmental Site Assessment Report (Phase I 2017), Prepared by Partner Engineering and Science, Inc., 2017.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<b>20. WILDFIRES.</b> If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**a) Substantially impair an adopted emergency response plan or emergency evacuation plan?**

**No Impact.** The project site is developed and within an urbanized residential area of the City of Garden Grove. The project site is surrounded by developed and urban areas. The project site is not adjacent to any wildland areas. According to the CAL FIRE Hazard Severity Zone map, the project site is not within a fire hazard zone. Also, as described previously, the proposed project area would be accessed from two locations on Chapman Avenue. Permitting of the driveways and onsite circulation would provide adequate and safe circulation to, from, and through the project site that would provide appropriate emergency access and evacuation routes. Because the project is required to comply with the California Fire Code (included as GGMC 18.32.020), as verified by the City's permitting process, potential impacts related to impairment of an emergency response or evacuation plan would not occur. No mitigation measures are required.

**b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?**

**No Impact.** The project site is developed and within an urbanized residential area of the City of Garden Grove. The project site is surrounded by developed and urban areas. The project site is not adjacent to any wildland areas, and as determined by the CAL FIRE Hazard Severity Zone map, the project site is not within a fire hazard zone. In addition, the project site is flat and within

a flat area. The site is adjacent to a roadway, a concrete railroad easement used for car storage, and commercial development. There are no factors on or adjacent to the project site that would exacerbate wildfire risks. Thus, no impacts related to other factors that would expose persons on site to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire would occur from the project. No mitigation measures are required.

**c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?**

**No Impact.** As described previously, the project site is developed and within a developed and urban area that is not within a wildfire hazard zone. The project does not include any infrastructure that would exacerbate fire risks. In addition, the project would provide internal circulation and fire suppression facilities (e.g., hydrants and sprinklers) that conform to the California Fire Code requirements, included in GGMC 18.32.020, as verified through the City's permitting process. Therefore, impacts related to infrastructure that could exacerbate fire risks would not occur with the proposed project. No mitigation measures are required.

**d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact.** As described previously, the project site is developed and within a developed and urban area that is not within a wildfire hazard zone. In addition, the project site is flat and surrounded by flat areas. There are no slope or hillsides that would become unstable. In addition, the project would install onsite drainage that would convey stormwater above the 85<sup>th</sup> percentile to the existing storm drains that are adjacent to the site, which is consistent with the existing condition. Therefore, impacts related to flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes would not occur from the proposed project. No mitigation measures are required.

**Existing Plans, Programs, or Policies**

None.

**Mitigation Measures**

None.

**Sources**

California Department of Forestry and Fire Protection (CAL FIRE). 2020. Fire Hazard Severity Zone Map. Accessed:  
<https://forestwatch.maps.arcgis.com/apps/Styler/index.html?appid=5e96315793d445419b6c96f89ce5d153>

**21. MANDATORY FINDINGS OF SIGNIFICANCE.**

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

**Less Than Significant Impact with Mitigation Incorporated.** As described in Section 4, *Biological Resources*, the project site is developed, and no special status vegetation types or wildlife species are located on or adjacent to the project site. No potentially suitable habitat for special status plant or wildlife species is on or adjacent to the site. Additionally, the project site does not include riparian, wetland, grassland, woodland, or other natural areas. However, the project area contains scattered ornamental trees that could be used for nesting by common bird species that are protected by the federal MBTA and the California Fish and Game Code Sections 3503.5, 3511, and 3515. These bird species are protected during the avian nesting and breeding season, which occurs between February 1 and September 15. Therefore, Mitigation Measure BIO-1 has been included to require a nesting bird survey if construction commences during nesting season. Mitigation Measure BIO-1 would reduce potential impacts to a less than significant level.

Also, as described Section 5, *Cultural Resources*, and Section 18, *Tribal Cultural Resources*, the project site does not contain any historic resources, archaeological resources, or known tribal cultural resources. The site has been highly disturbed from past activities and contains 3 to 5 feet of fill materials. As a result, the potential for archaeological, tribal cultural, or paleontological resources on the site is low. However, Mitigation Measures CUL-1 and TCR-1 have been included to ensure

that any inadvertent discovery of potential resources during ground-disturbing activities would be less than significant.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

**Less than Significant with Mitigation Incorporated.** Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. CEQA Guidelines, Section 15130 (a) and (b), states:

- (a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.
- (b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

The project site is currently developed and is located in an urban area. The project would redevelop the site for commercial retail and restaurant uses, which is consistent with the General Plan Land Use designation, zoning designation, and surrounded by similar residential development.

The City has identified three development projects that are in the general vicinity of the project site that may have the potential to result in cumulative effects. These projects include the following:

- A. Video Arcade: 1,400 square feet (9691 Chapman Avenue)
- B. Convenience Store (2,232 square feet) with Gas Station (8471 Chapman Avenue)
- C. Citi Bank: 4,200 square feet (9665 Chapman Avenue)

Like the proposed project, the three cumulative projects involve redevelopment of parcels within the existing urban environment and are community type uses. The cumulative projects are also located on Chapman Avenue, and as detailed in Section 17, *Transportation*, the cumulative projects would not generate a cumulative traffic impact with implementation of the proposed project.

In addition, all of the other potential impacts related to implementation of the project would be less than significant or reduced to a less than significant level with implementation of mitigation measures related to biological resources, cultural resources, paleontological resources and tribal cultural resources. In addition, the cumulative effect of the project is limited, due to the small scale and redevelopment nature of the project on land that has been previously disturbed and is zoned for the proposed uses. The project would rely on and can be accommodated by the existing road system, public services, and utilities. Thus, impacts to environmental resources or issue areas would not be cumulatively considerable; and cumulative impacts would be less than significant.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

**Less than Significant with Mitigation Incorporated.** The project proposes redevelopment of the project site for new commercial retail and restaurant uses. As described previously, the project site is within an urban area and surrounded by consistent land uses. The project would not consist of any use or any activities that would result in a substantial negative affect on persons in the vicinity. All resource topics associated with the proposed project have been analyzed in accordance with CEQA and the State CEQA Guidelines and were found to pose no impacts or less-than-significant impacts with implementation of mitigation measures related to biological resources, cultural resources, paleontological resources, and tribal cultural resources; and existing plans, programs, or policies that are required by the City. Consequently, the proposed project would result in environmental effects that would cause substantial adverse effects on human beings directly or indirectly, and impacts would be less than significant with mitigation.

**Existing Plans, Programs, or Policies**

As listed in previous responses.

**Mitigation Measures**

As listed in previous responses.



## 5 DOCUMENT PREPARERS AND CONTRIBUTORS

**Lead Agency:**

City of Garden Grove  
Community and Economic Development Department  
11222 Acacia Parkway  
Garden Grove, CA 92840

**CEQA Document Preparer:**

EPD Solutions, Inc.  
Konnie Dobrevva, JD  
Renee Escario  
Meghan Macias, T.E.  
Alex Garber