

**INITIAL STUDY  
FOR:**

**AFFORDABLE SENIOR  
HOUSING  
COMMUNITY, SENIOR  
CENTER, PARK, AND  
ABCUSD  
KITCHEN/WAREHOUSE  
FACILITY AND OFFICE  
RELOCATION PROJECT**



*prepared for:*

**CITY OF CERRITOS**

Contact:  
Robert A. Lopez  
Advance Planning/  
Redevelopment Manager

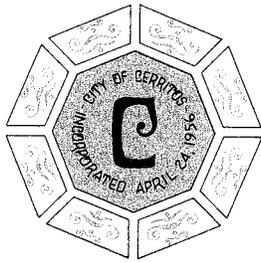
*prepared by:*

**THE PLANNING  
CENTER**

Contact:  
Dwayne S. Mears, AICP  
Principal, Environmental  
Services

**AUGUST 2007**

**ATTACHMENT 17**



# CITY OF CERRITOS

CIVIC CENTER • 18125 BLOOMFIELD AVENUE  
P.O. BOX 3130 • CERRITOS, CALIFORNIA 90703-3130  
PHONE: (562) 860-0311 • FAX: (562) 916-1242

## MITIGATED NEGATIVE DECLARATION

Pursuant to the procedures of the City of Cerritos for the implementation of the California Environmental Quality Act, the City has completed an Initial Study for the project described below:

### Project Information:

- Project:** Affordable Senior Housing Community, Senior Center, Park, and ABCUSD Kitchen/Warehouse Facility and Office Relocation Project
- Project Location:** The proposed project would involve five main components on two separate project sites. The first set of components, associated with the redevelopment of the 16700 Norwalk Boulevard site, include an affordable senior housing community, a senior center, and a park. The final two components include the relocation of the offices, warehouse, and central kitchen facility of the ABC Unified School District (ABCUSD or District) to 12880 Moore Street/12881 166<sup>th</sup> Street.
- Project Proponent:** City of Cerritos/Cerritos Redevelopment Agency
- Project Description:** The proposed project is comprised of five main components occurring in two locations. The first location is a 15.7-acre site owned by the ABCUSD located at 16700 Norwalk Boulevard in the City of Cerritos. The improvements proposed for this project site involve three components: the construction of the affordable senior residential community, senior center, and park. The improvements associated with these first three components would be owned and managed by a private non-profit corporation under a ground lease with the District.
- The location for the second project site involves the fourth and fifth components: the relocation of the ABCUSD office facility as well as ABCUSD's kitchen and warehouse facilities from their current location at 16700 Norwalk Boulevard to an approximately 4.6-acre site at 12880 Moore Street/12881 166<sup>th</sup> Street in the City of Cerritos.

### Affordable Senior Housing

As proposed, the western portion of the project site (approximately 10.42 acres) would contain an affordable senior residential community and a senior center. To accommodate the surrounding community's projected demographic changes and also satisfy the City's legal obligations to provide affordable housing in the community, the proposed residential community would be for seniors who are 55 years of age or older. The proposed development consists of 247 total dwelling units.

### **Senior Center**

The proposed project would include a senior center containing amenities similar to those available at the Cerritos Senior Center at Pat Nixon Park. The proposed senior center would act as a satellite to the existing Cerritos Senior Center, while also serving as the clubhouse for the residents of the affordable senior residential community. The new senior center would be approximately 13,000 square feet in size, and would include a fitness room with exercise equipment, dance/aerobic room, multi-purpose room/banquet facility, leisure room, library, computer center, restrooms, and management offices.

### **Park**

A park would be constructed on the eastern portion of the project site (approximately 4.04 acres). The park would serve both the residents of the affordable senior residential community and the surrounding neighborhood. The proposed park would contain play equipment, picnic shelters, and walking paths. The park improvements would be maintained in a manner consistent with other parks throughout the City.

### ***District Office Relocation***

This component of the project would involve the relocation of the ABCUSD's administrative facility from its current location at 16700 Norwalk Boulevard to a project site located at 12800 Moore Street/12881 166<sup>th</sup> Street in Cerritos. The District office facility would utilize the existing approximately 44,500 square foot building fronting 166<sup>th</sup> Street. This building would not be demolished. Rather, the interior of the existing building would be remodeled, as appropriate, to accommodate the District's operations. Minor exterior modifications would be made to facilitate pedestrian ingress and egress for public meetings held in the building. No significant exterior or structural remodel would occur.

### **ABCUSD Kitchen/Warehouse Facility**

Currently, the kitchen facility and a warehouse facility for the District are housed in two separate buildings on the 16700 Norwalk Boulevard site. The proposed project would move the warehouse and central kitchen facility to a project site located at 12880 Moore Street/12881 166<sup>th</sup> Street in Cerritos. This site currently houses two existing buildings. The building fronting Moore Street is approximately 35,500 square feet in size and would be utilized to house the District's warehouse and central kitchen facility. The building would not be demolished. Rather, the building's interior would be remodeled, as appropriate, to accommodate the District's operations. No significant exterior or structural remodel would occur.

### **Existing Conditions:**

#### **16700 Norwalk Boulevard**

The site is bounded to the north by 166<sup>th</sup> Street, with single- and multi-family residences, zoned Development Area Three (ADP-3), as well as a neighborhood commercial center, zoned Neighborhood Commercial (CN), located beyond. Norwalk Boulevard lies to the west of the site, with light industrial business uses, zoned Industrial (M), located beyond. Cuesta Drive bounds the southern portion of the project site, with Tracy High School and ABC Adult School, zoned Open Space (OS), located

directly south of Cuesta Drive. The Cerritos Villas condominium development, zoned Multi-Family Residential (RM), is located adjacent to the eastern boundary of the project site.

**12880 Moore Street/12881 166<sup>th</sup> Street**

The approximately 4.6-acre site is comprised to two separate, but abutting, parcels located at 12880 Moore Street and 12881 166<sup>th</sup> Street, respectively.

The 12880 Moore Street portion of the site is currently 1.74-acres in size and the site is currently utilized by Calnetix-Vycon for the development and prototyping of high-speed motors and generators, magnetic bearings, control systems, and electronic designs. The building located on this site is approximately 35,500-square feet in size. Prior to the construction of the existing buildings on the site, the area was utilized mostly for agricultural production.

The 12881 166<sup>th</sup> Street portion of the site is currently 2.86 acres in size and is currently occupied with a commercial office building housing Remax Select, Alternative Options, Community Housing Management Services, and Branch Marketing. The building on this site is approximately 44,500 square feet in size, with the first floor totaling approximately 21,500-square feet and the second floor totaling approximately 23,000-square feet. As with the 12880 Moore Street site, prior to the construction of the existing buildings on the site, the area was utilized for agricultural production.

**Summary of Impacts:**

Attached is the Initial Study prepared for the Affordable Senior Housing Community, Senior Center, Park, and ABCUSD Kitchen/Warehouse Facility and Office Relocation Project. The Initial Study reviews potential environmental effects associated with all five components of the project on both sites. Please review the Initial Study for more information.

**Availability of Documents:**

Complete copies of the Mitigated Negative Declaration and Initial Study are on file at the City of Cerritos planning counter, 18125 Bloomfield Avenue, Cerritos, CA, 90703.

## **Mitigation Measures:**

### *Aesthetics*

1. All outdoor lighting shall be designed and installed so that all direct rays are confined to the site and adjacent properties are protected from glare. The lighting plans for each component of the project shall comply with all City codes and ordinances related to lighting and glare, and shall not exceed the City's designated threshold of one horizontal foot-candle.
2. Luminaries shall be provided with filtering louvers and hoods. During installation, the luminaries shall be aimed and corrected by a field crew to aim the lights away from sensitive residential uses.

### *Cultural Resources*

3. The applicant shall have a qualified archaeologist on call to identify and evaluate any resources that may be uncovered as a result of the proposed development. If any cultural resources are discovered during ground-disturbing activities, work in the area shall be diverted until the discovery can be assessed for significance by a qualified archaeologist.
4. The applicant shall have a qualified paleontologist on call to identify and evaluate any resources that may be uncovered as a result of the proposed development. If any cultural resources are discovered during ground-disturbing activities, work in the area shall be diverted until the discovery can be assessed for significance by a qualified paleontologist.

### *Hazards and Hazardous Materials*

5. Prior to project demolition, an asbestos survey shall be required. If demolition activities would disturb asbestos-containing materials, a qualified Asbestos Abatement Contractor shall remove the materials and clean the area in accordance with South Coast Air Quality Management District and California Occupational Safety and Health Administration requirements prior to starting demolition.
6. All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 1403, which specifies actions to control asbestos emissions from demolition. Construction contractors shall provide documentation that they will comply with all applicable SCAQMD regulations and the mitigation measures.
7. Prior to project demolition, a lead-based paint survey shall be required. If lead is found in painted surfaces on the existing project site, a Lead Management Program should be prepared and implemented to avoid incidental and/or accidental disturbance of lead-based paint. The program should set forth operation and maintenance guidelines to minimize lead exposure. Prior to demolition or major construction, specifications should be properly modified to incorporate the removal of lead-based paint. According to California OSHA, any detectable level of lead can result in occupational exposure. In addition, if lead is found on the project site, the following measures shall occur during project construction:
  - Personal and random area air monitoring shall be conducted during lead removal and/or demolition.
  - Contractors shall keep debris piles wet after demolition to prevent lead particles from becoming airborne.

- Contractors shall recommend that construction workers wear masks during demolition to avoid breathing lead particles.

*Utilities and Service Systems*

8. Recycling bins shall be provided by project applicants at all construction sites. All recyclable materials currently being accepted at either the landfill and/or recycling centers shall be directed for recycling at construction sites.
9. On-site recycling bins shall be required to serve the needs of the senior housing residents.

**Lead Agency Determination:**

**On the basis of this initial evaluation:**

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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.

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

*August 28, 2007*  
 \_\_\_\_\_  
 Date

Robert A. Lopez  
 \_\_\_\_\_  
 Printed Name

Advance Planning/Redevelopment Manager  
 \_\_\_\_\_  
 Title

**INITIAL STUDY  
FOR:**

**AFFORDABLE SENIOR  
HOUSING  
COMMUNITY, SENIOR  
CENTER, PARK, AND  
ABCUSD  
KITCHEN/WAREHOUSE  
FACILITY AND OFFICE  
RELOCATION PROJECT**



*prepared for:*

**CITY OF CERRITOS**

18125 Bloomfield Avenue Contact:  
Cerritos, CA 90703 Robert A. Lopez  
562.916.1201 Advance Planning/  
Redevelopment Manager

*prepared by:*

**THE PLANNING  
CENTER**

1580 Metro Drive Contact:  
Costa Mesa, CA 92626 Dwayne S. Mears, AICP  
Tel: 714.966.9220 • Fax: 714.966.9221 Principal, Environmental  
E-mail: [costamesa@planningcenter.com](mailto:costamesa@planningcenter.com) Services  
Website: [www.planningcenter.com](http://www.planningcenter.com)

**CTS-14**

**AUGUST 2007**

# Table of Contents

Section	Page
<b>1. INTRODUCTION .....</b>	<b>1</b>
1.1 PROJECT LOCATION.....	1
1.2 ENVIRONMENTAL SETTING .....	1
1.3 PROJECT DESCRIPTION .....	15
1.4 EXISTING ZONING AND GENERAL PLAN .....	21
1.5 CITY ACTION REQUESTED.....	21
<b>2. ENVIRONMENTAL CHECKLIST .....</b>	<b>23</b>
2.1 BACKGROUND .....	23
2.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED .....	25
2.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY).....	25
2.4 EVALUATION OF ENVIRONMENTAL IMPACTS .....	26
<b>3. ENVIRONMENTAL ANALYSIS.....</b>	<b>35</b>
3.1 AESTHETICS.....	35
3.2 AGRICULTURE RESOURCES.....	37
3.3 AIR QUALITY .....	38
3.4 BIOLOGICAL RESOURCES.....	49
3.5 CULTURAL RESOURCES.....	51
3.6 GEOLOGY AND SOILS.....	53
3.7 HAZARDS AND HAZARDOUS MATERIALS.....	55
3.8 HYDROLOGY AND WATER QUALITY .....	59
3.9 LAND USE AND PLANNING .....	66
3.10 MINERAL RESOURCES.....	67
3.11 NOISE .....	68
3.12 POPULATION AND HOUSING.....	82
3.13 PUBLIC SERVICES.....	82
3.14 RECREATION.....	85
3.15 TRANSPORTATION/TRAFFIC.....	85
3.16 UTILITIES AND SERVICE SYSTEMS.....	97
3.17 MANDATORY FINDINGS OF SIGNIFICANCE.....	100
<b>4. REFERENCES .....</b>	<b>101</b>
4.1 PRINTED REFERENCES .....	101
4.2 WEB SITES .....	102
<b>5. LIST OF PREPARERS .....</b>	<b>103</b>
LEAD AGENCY .....	103
THE PLANNING CENTER .....	103



## APPENDICES

- A. AIR QUALITY MODELING INFORMATION
- B. NOISE MODELING INFORMATION
- C. TRAFFIC IMPACT ANALYSIS

# *Table of Contents*

---

## **List of Figures**

<b>Figure</b>		<b>Page</b>
Figure 1	Regional Vicinity.....	3
Figure 2	Local Vicinity .....	5
Figure 3	Aerial Photograph – 16700 Norwalk Boulevard Site .....	7
Figure 4	Aerial Photograph – 12280 Moore St./12881 166 <sup>th</sup> St. ....	9
Figure 5	Site Photographs – 16700 Norwalk Boulevard Site .....	11
Figure 6	Site Photographs – 12880 Moore St./12881 166 <sup>th</sup> St. ....	13
Figure 7	Site Plan – 16700 Norwalk Boulevard Site.....	17
Figure 8	Site Plan – 12880 Moore St./12881 166 <sup>th</sup> St. Site.....	19

**List of Tables**

<b>Table</b>	<b>Page</b>
Table 1 Ambient Air Quality Standards for Criteria Pollutants .....	39
Table 2 Ambient Air Quality Monitoring Summary .....	41
Table 3 SCAQMD Threshold of Significance .....	42
Table 4 SCAQMD Localized Significance Thresholds For SRA 4.....	43
Table 5 Maximum Daily Construction Emissions.....	45
Table 6 Daily Operational Emission .....	46
Table 7 Maximum Daily Operational Emissions Compared with the LST .....	48
Table 8 Maximum Daily Construction Emissions Compared with the LST .....	48
Table 9 Source-Control BMPs and Site Design Stormwater BMP Selection Matrix .....	61
Table 10 State of California Interior and Exterior Noise Standards.....	70
Table 11 Community Noise and Land Use Compatibility.....	71
Table 12 City of Cerritos Maximum Exterior Noise Limits (dBA).....	72
Table 13 Groundborne Vibration and Noise Impact Criteria .....	73
Table 14 Existing Traffic Noise Levels (dBA CNEL) .....	74
Table 15 Opening Year (2011) Without Project vs. With Project Traffic Noise Modeling.....	77
Table 16 Average Noise Levels from Activities at the Park.....	78
Table 17 Noise Levels at the Park and Senior Housing Units .....	79
Table 18 Average Vibration Source Levels for Construction Equipment .....	80
Table 19 Average Project-Related Construction Noise Levels .....	81
Table 20 Existing Intersection Capacity Utilization and Level of Service .....	87
Table 21 Affordable Senior Residential Community Project Traffic Generation Trip Generation Rates.....	88
Table 22 Affordable Senior Residential Community Project Traffic Generation Actual Counts.....	89
Table 23 ABC USD Office/Kitchen/Warehouse Project Traffic Generation Trip Generation Rates.....	89
Table 24 ABC USD Office/Kitchen/Warehouse Project Traffic Generation Actual Counts .....	90
Table 25 Affordable Senior Residential Community Project Traffic Generation Comparison .....	90
Table 26 ABC USD Office/Kitchen/Warehouse Project Traffic Generation Comparison .....	90
Table 27 Opening Year (2011) Without Project Intersection Capacity Utilization and Level of Service .....	92
Table 28 Intersection Capacity Utilization and Level of Service for Opening Year 2011 .....	93
Table 29 Significant Impact Threshold for Intersections .....	93
Table 30 Project Traffic Contribution.....	94



## *Table of Contents*

---

*This page intentionally left blank.*

# 1. Introduction

---

The City of Cerritos seeks the approval of a Master Agreement, five Public Referral Projects and/or Precise Plan approval, and related entitlements to construct a 247-unit affordable senior residential community, a senior center, and a park, and to relocate the administrative offices, central kitchen facility, and warehouse of the ABC Unified School District (District) to a new site in Cerritos.

The City of Cerritos, as Lead Agency for the project, is responsible for preparing environmental documentation in accordance with the California Environmental Quality Act (CEQA) as amended, to determine if approval of the discretionary actions requested and subsequent development could have a significant impact on the environment. This Initial Study will provide the City of Cerritos with information to document potential impacts of the proposed project.

## 1.1 PROJECT LOCATION

Figure 1, *Regional Location*, shows the location of the City of Cerritos within southern California and its regional transportation corridors. The City of Cerritos is located in the southeastern portion of Los Angeles County.

The proposed project is comprised of five main components occurring in two locations. The first location is a 15.7-acre site owned by the ABC Unified School District located at 16700 Norwalk Boulevard in the City of Cerritos (see Figure 2, *Local Vicinity*). The improvements proposed for this project site involve three components: the construction of the affordable senior residential community, senior center, and park. These improvements would be owned and managed by a private nonprofit corporation under a ground lease with the District.

The location for the second project site involves the fourth and fifth components: the relocation of the District office facility as well as ABCUSD's kitchen and warehouse facilities from their current location at 16700 Norwalk Boulevard to an approximately 4.6-acre site located at 12880 Moore Street/12881 166<sup>th</sup> Street in the City of Cerritos (see Figure 2).

## 1.2 ENVIRONMENTAL SETTING

### 1.2.1 Existing Land Use

#### 16700 Norwalk Boulevard

The 15.7-acre project site is currently utilized by the District as their District Office facility. The site currently consists of three main buildings that house the District's administrative offices, maintenance warehouse, and central kitchen. The buildings on the site were constructed in 1973. The District office building is approximately 48,000 square feet, the warehouse is approximately 25,000 square feet, and the nutrition services (central kitchen) building is approximately 16,500 square feet in size. Approximately 125 employees report to the site on the daily basis, although the number of daily visitors to the site fluctuates between 10 and 100 additional people. Access to the site is currently taken from 166<sup>th</sup> Street, Norwalk Boulevard, and Cuesta Drive.



# 1. Introduction

---

The ABCUSD office site is currently underutilized, with three scattered buildings, parking, and some vacant land. This property was deemed by the ABCUSD School Board to be surplus property on May 1, 2007. The main employee and visitor parking lot is located on the western portion of the site. The southeastern corner of the site is currently undeveloped and vacant.

## **12880 Moore Street/12881 166<sup>th</sup> Street**

The approximately 4.6-acre site is comprised to two separate, but abutting, parcels located at 12880 Moore Street and 12881 166<sup>th</sup> Street, respectively.

The 12880 Moore Street portion of the site is currently 1.74-acres in size and the site is currently utilized by Calnetix-Vycon for the development and prototyping of high-speed motors and generators, magnetic bearings, control systems, and electronic designs. The building located on this site is approximately 35,500-square feet in size. Prior to the construction of the existing buildings on the site, the area was utilized mostly for agricultural production.

The 12881 166<sup>th</sup> Street portion of the site is currently 2.86 acres in size and is currently occupied with a commercial office building housing Remax Select, Alternative Options, Community Housing Management Services, and Branch Marketing. The building on this site is approximately 44,500 square feet in size, with the first floor totaling approximately 21,500-square feet and the second floor totaling approximately 23,000-square feet. As with the 12880 Moore Street site, prior to the construction of the existing buildings on the site, the area was utilized for agricultural production.

Figures 3 and 4, *Aerial Photographs*, show the relationship of the proposed project sites to their surrounding land uses. Figures 5 and 6 are photographs of the 16700 Norwalk Boulevard and 12880 Moore Street/12881 166<sup>th</sup> Street project sites and their surrounding land uses, respectively.

## **1.2.2 Surrounding Land Use**

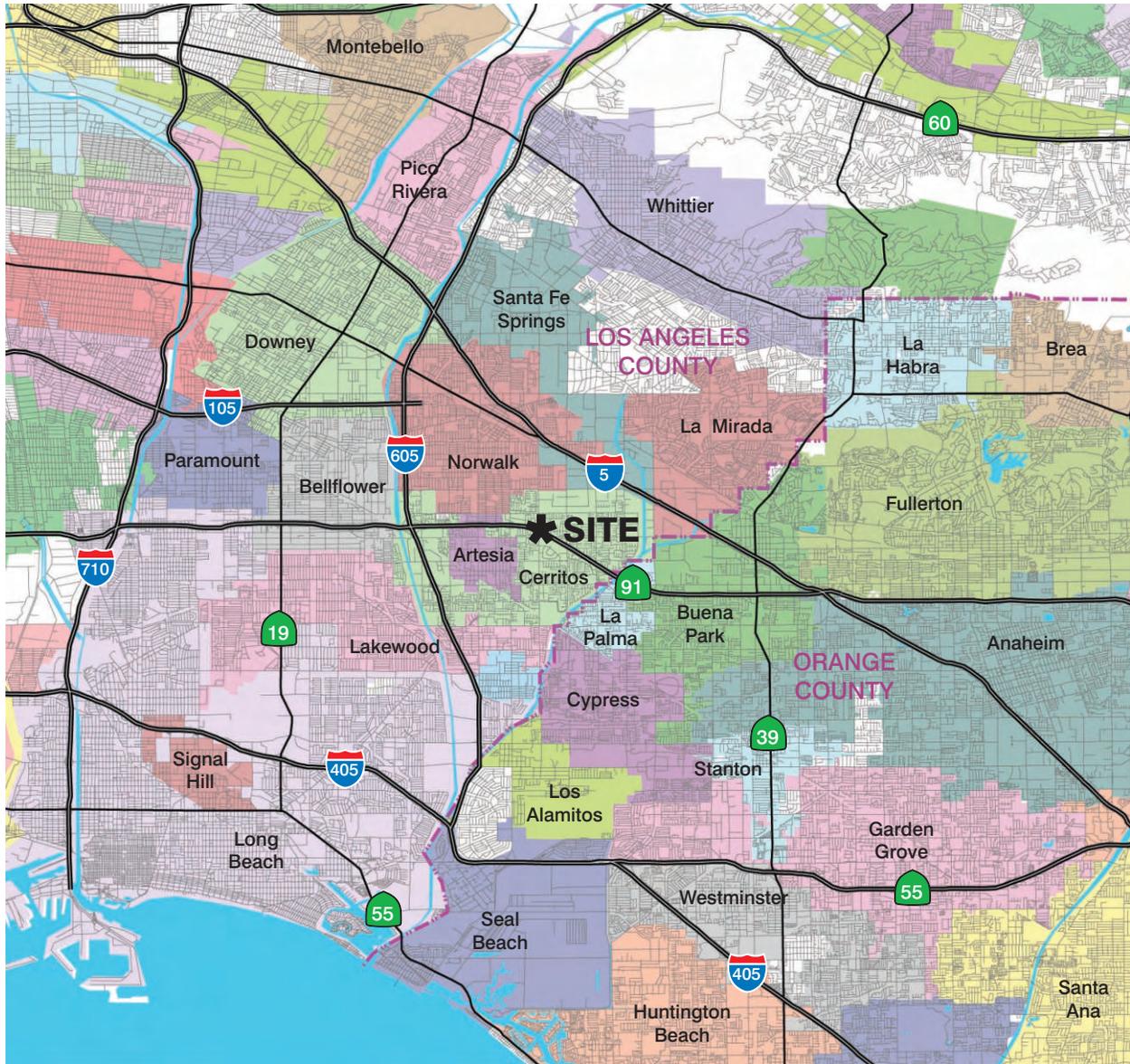
### **16700 Norwalk Boulevard**

The site is bounded to the north by 166<sup>th</sup> Street, with single- and multifamily residences, zoned Development Area Three (ADP-3), as well as a neighborhood commercial center, zoned Neighborhood Commercial (CN), located beyond. Norwalk Boulevard lies to the west of the site, with light industrial business uses, zoned Industrial (M), located beyond. Cuesta Drive bounds the southern portion of the project site, with Tracy High School and ABC Adult School, zoned Open Space (OS), located directly south of Cuesta Drive. The Cerritos Villas condominium development, zoned Multi-Family Residential (RM), is located adjacent to the eastern boundary of the project site.

### **12880 Moore Street/12881 166<sup>th</sup> Street**

The site is bounded to the north by Moore Street, with office and light industrial uses, zoned Development Area One (ADP-1) located beyond. The site is bounded to the south by 166<sup>th</sup> Street, with residential uses, zoned Single Family Residential 5000, beyond. Office and light industrial uses, zoned ADP-1, are located adjacent to both the eastern and western boundaries of the proposed project site.

# Regional Location



NOT TO SCALE

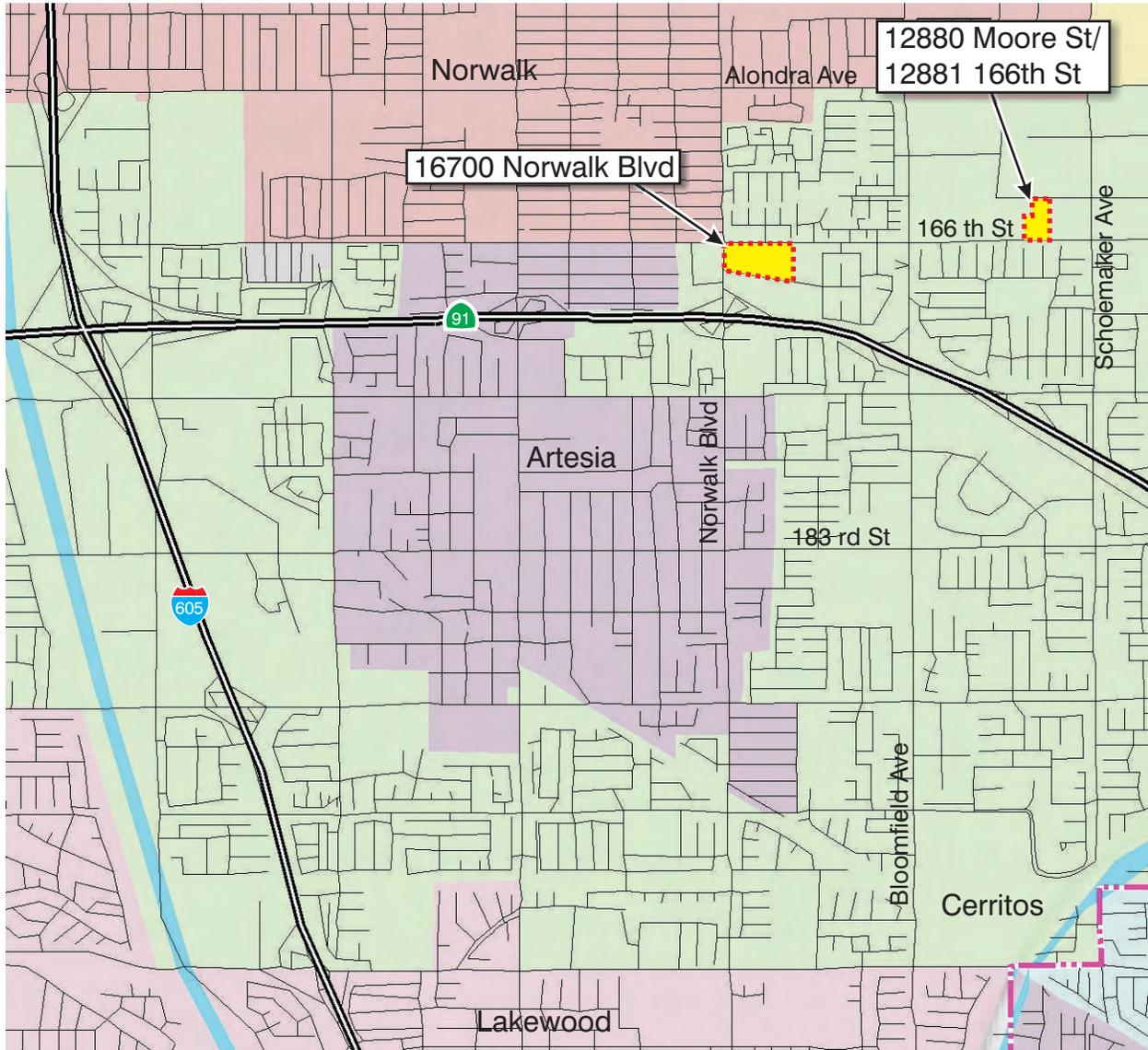


## *1. Introduction*

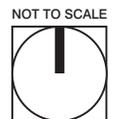
---

*This page intentionally left blank.*

# Local Vicinity



..... Site Boundary



## *1. Introduction*

---

*This page intentionally left blank.*

# Aerial Photograph - 16700 Norwalk Blvd. Site



Source: Google Earth Pro

Affordable Senior Housing Community, Senior Center, Park, and ABCUSD Kitchen/Warehouse Facility and Office Relocation Project Initial Study



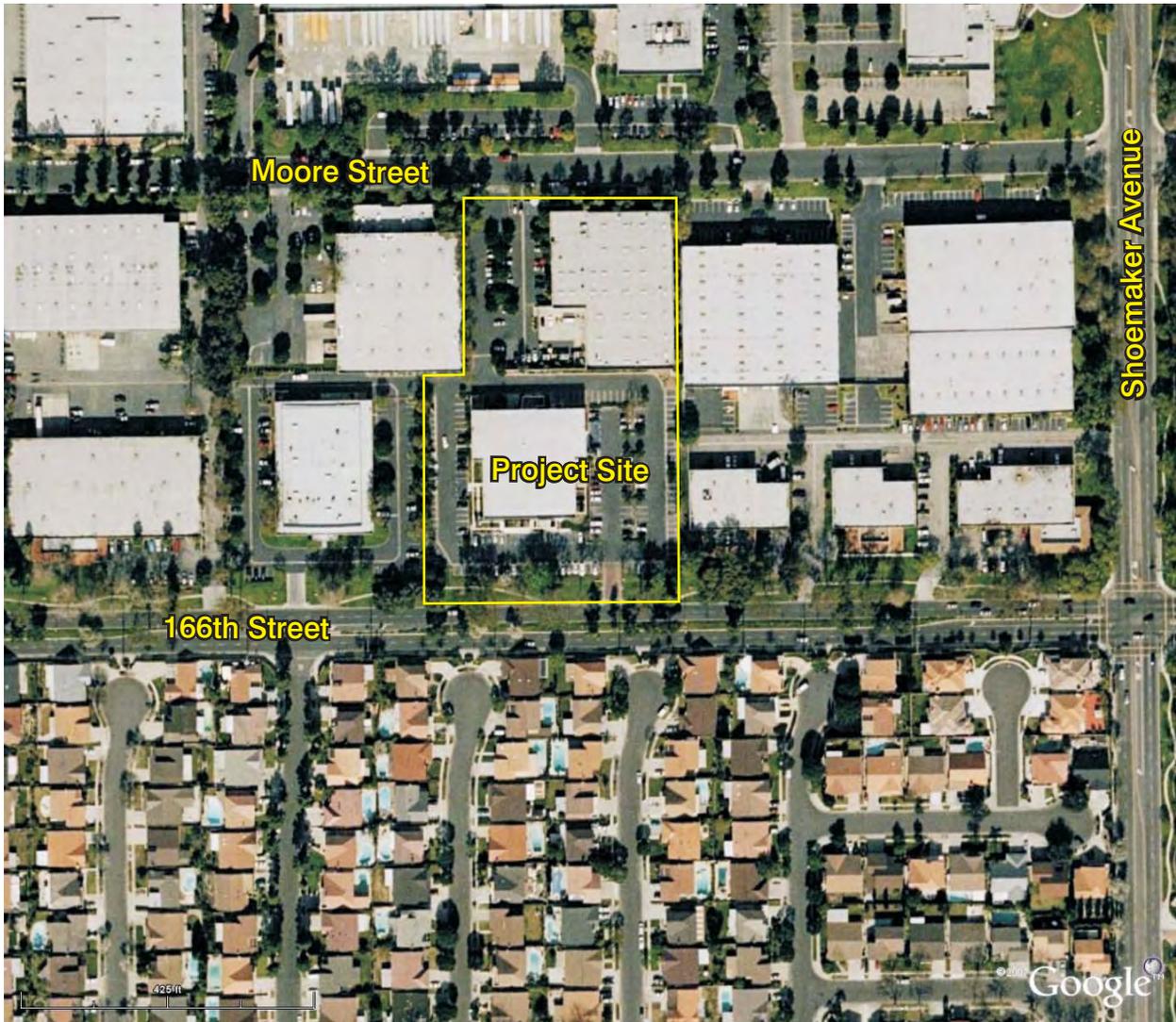
The Planning Center • **Figure 3**

## *1. Introduction*

---

*This page intentionally left blank.*

*Aerial Photograph - 12880 Moore St./  
12881 166th St. Site*



Source: Google Earth Pro

*Affordable Senior Housing Community, Senior Center, Park, and ABCUSD  
Kitchen/Warehouse Facility and Office Relocation Project Initial Study*



*The Planning Center • Figure 4*

## *1. Introduction*

---

*This page intentionally left blank.*

---

*Site Photos - 16700 Norwalk Blvd. Site*



1.



2.



3.

## *1. Introduction*

---

*This page intentionally left blank.*

Site Photographs



1. View to the south from Moore St.



2. View to the north from 166th St.

NOT TO SCALE



## *1. Introduction*

---

*This page intentionally left blank.*

## 1.3 PROJECT DESCRIPTION

### 1.3.1 Proposed Land Use

The proposed project is comprised of five main components occurring in two locations. The first location is a 15.7-acre site, owned by ABCUSD and located at 16700 Norwalk Boulevard in the City of Cerritos. The improvements proposed for this project site involve three components: the construction of the affordable senior residential community, senior center, and park. The improvements associated with the first three components (i.e., the affordable senior residential community, senior center, and park) would be owned and managed by a private nonprofit corporation under a ground lease with the District. Figure 7, *Site Plan – 16700 Norwalk Boulevard Site*, illustrates the site plan for this component of the project.

The location for the second project site involves the fourth and fifth components: the relocation of the ABCUSD office facility as well as ABCUSD’s kitchen and warehouse facilities from their current location at 16700 Norwalk Boulevard to an approximately 4.6-acre site at 12880 Moore Street/12881 166<sup>th</sup> Street in the City of Cerritos. Figure 8, *Site Plan – 12880 Moore St./12881 166<sup>th</sup> St. Site*, illustrates the site plan for this component of the project.

#### 16700 Norwalk Boulevard

##### **Affordable Senior Housing**

As proposed, the western portion of the project site (approximately 10.42 acres) would contain an affordable senior residential community development and a senior center. To accommodate the community’s projected demographic changes and also satisfy the City’s legal obligations to provide affordable housing in the community, the proposed residential community would be for seniors who are 55 years of age or older. The proposed development consists of 247 total dwelling units.



The affordable senior residential community would be comprised of five 3-story buildings and one combination 2-and-3-story building, all of which would be designed in a Southern California Mediterranean-inspired style. The building elevations would be broken into sections of varying depths and finishes so as to reduce the building massing and provide architectural interest.

Common-area amenities on the site would include a swimming pool, a spa, an open space recreation area, and landscaped greenbelts connecting all buildings and parking areas on-site. All internal circulation paths would be handicap-accessible.

Each building would contain a combination of one- and two-bedroom units and an elevator for ease of access to the upper floors. Unit sizes would range from approximately 836 square feet to approximately 1,104 square feet with both one- and two-bedroom units.

The entire complex would be surrounded by an eight-foot perimeter block wall for security, with gated pedestrian access at the Cuesta Drive and 166<sup>th</sup> Street entrances, as well as a pedestrian-only access gate on the northwest corner of the site, which would provide access to Cerritos on Wheels bus stops on Norwalk Boulevard and 166<sup>th</sup> Street. The parkway areas facing all perimeter streets would contain sidewalks and would be landscaped with new trees and shrubs.

Primary vehicle ingress/egress to the affordable senior residential community would be provided from Cuesta Drive, to the south, with secondary “right-turn-in/right-turn-out” ingress/egress from 166<sup>th</sup> Street to the north.

# *1. Introduction*

---

Parking would be provided in open-air parking spaces, the majority of which would be covered by carports. One parking space would be allotted for one-bedroom units, while two parking spaces would be allotted for two-bedroom units, for a total of 304 covered spaces. An additional 89 uncovered guest spaces would also be available on the site.

## **Senior Center**

The proposed project would include a senior center containing amenities similar to those available at the Cerritos Senior Center at Pat Nixon Park. The proposed senior center would act as a satellite to the existing Cerritos Senior Center, while also serving as the clubhouse for the residents of the affordable senior residential community. The new senior center would be approximately 13,000 square feet in size, and would include a fitness room with exercise equipment, dance/aerobic room, multipurpose room/banquet facility, leisure room, library, computer center, restrooms, and management offices.

The facility would house programming and activities that are comparable to what is currently offered at the Cerritos Senior Center at Pat Nixon Park. The proposed senior center would be open during normal business hours on weekdays for use by seniors within the community at large. However, during the early morning, in the evening, and on weekends, the center would be open for use only by the residents of the proposed new residential community.

The eastern portion of the building would be dedicated to the multipurpose room and associated uses, such as a banquet facility. The multipurpose room would provide access to a kitchen, restrooms, and an outdoor patio. The western portion of the building would contain activity rooms, including flex space for billiards and/or table tennis, two fitness rooms, a leisure lounge, a resource/library room, and a computer room. This part of the building would also contain offices for the affordable senior residential community management staff as well as for the senior center staff.

The primary entrance to the senior center would be from a circular driveway off of Cuesta Drive. The circular driveway would include a drop-off area. The senior center would serve as an intermediate space between the private senior residential units and the adjacent proposed park. Parking for the senior center would be shared with the park, and would be located to the south and the west of the park, south of the senior center.

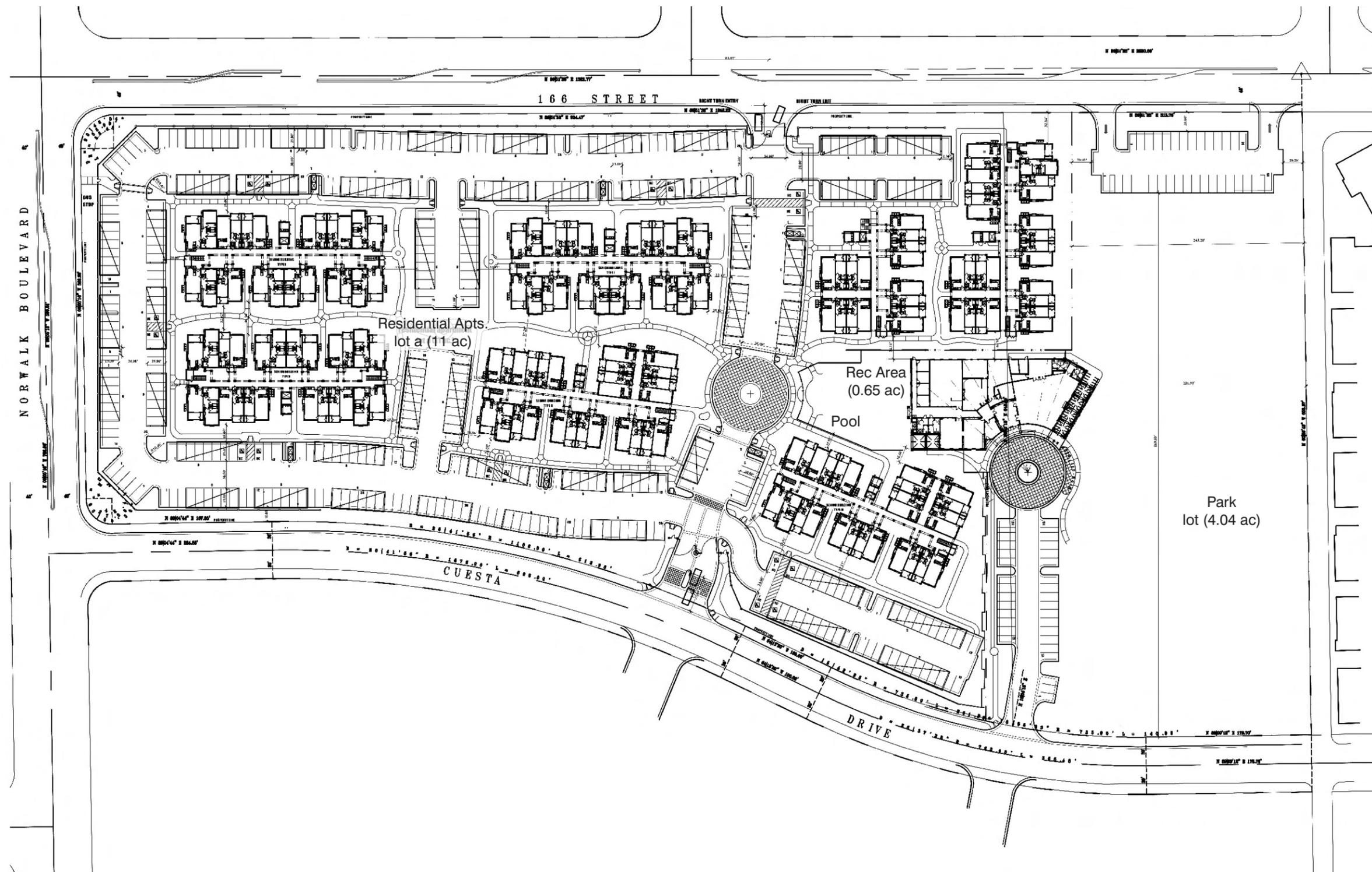
## **Park**

A park would be constructed on the eastern portion of the project site (approximately 4.04 acres). The park would serve both the residents of the affordable senior residential community and the surrounding neighborhood. The proposed park would contain play equipment, picnic shelters, and walking paths. The park improvements would be maintained in a manner consistent with other parks throughout the City.

Given its size, the park would have the potential to accommodate a number of recreational activities over its large open space. Any lighting of the recreational open space would be subject to the approval of adjacent residents. If approved, open space lighting would likely occur in the future during evening hours. A professionally prepared lighting plan would be prepared to ensure that the lighting is strategically located to reduce potential impacts to a level of insignificance. However, the exact placement of light poles has not yet been decided.

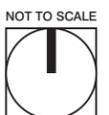
While it is anticipated that most users of the park would access it by foot, parking for the park would be shared with the senior center and would total 31 spaces. An additional 35 parking spaces for the park would be located to the north of the park, fronting on 166th Street.

Site Plan - 16700 Norwalk Blvd. Site



Source: The Woods Group Architects 2007

Affordable Senior Housing Community, Senior Center, Park, and ABCUSD  
Kitchen/Warehouse Facility and Office Relocation Project Initial Study

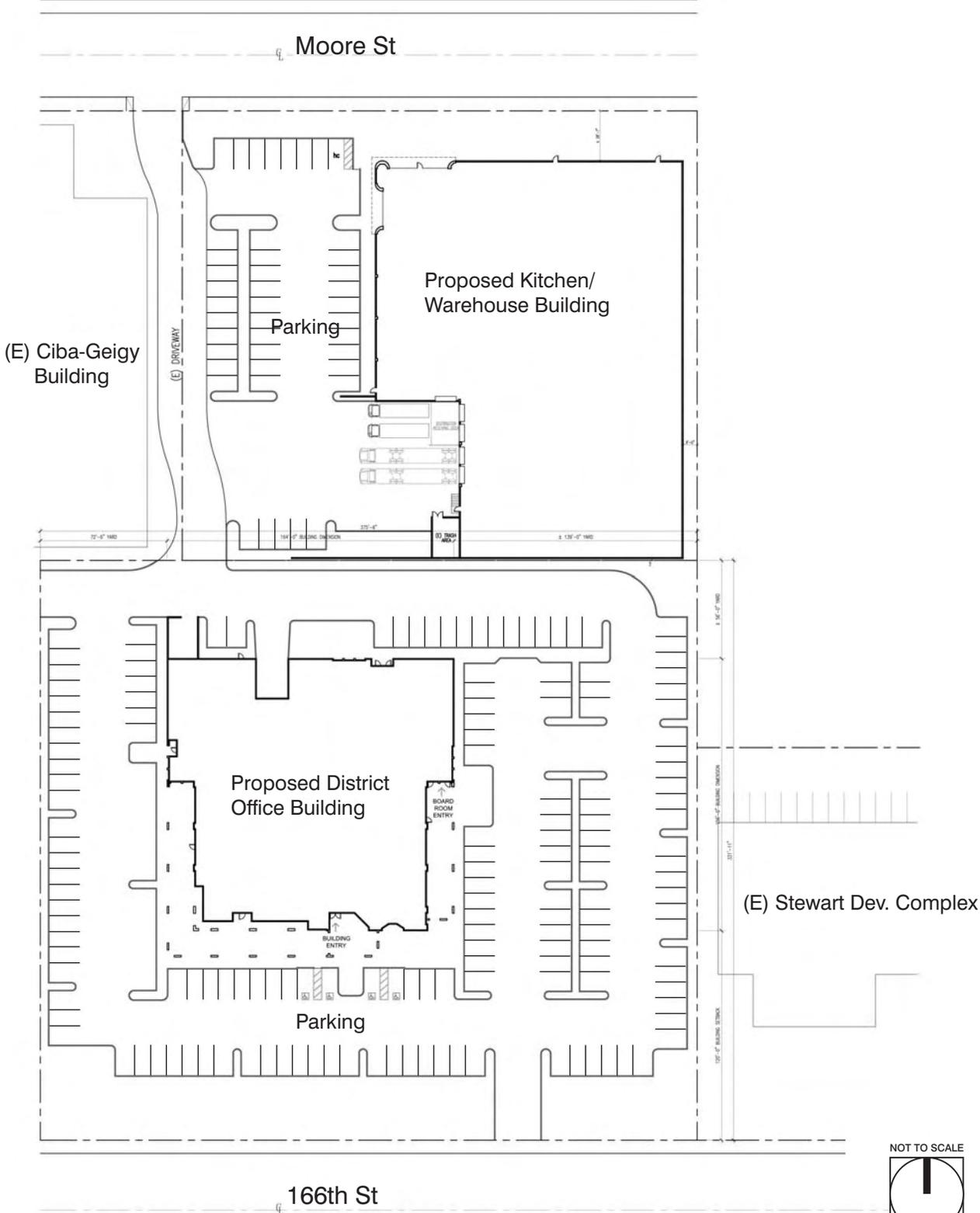


## *1. Introduction*

---

*This page intentionally left blank.*

# Site Plan - 12880 Moore St./12881 166th St. Site



Source: CWA AIA, Inc. 2007

## *1. Introduction*

---

*This page intentionally left blank.*

## **12880 Moore Street/12881 166<sup>th</sup> Street**

### ***District Office Relocation***

This component of the project would involve the relocation of the ABCUSD's administrative facility from its current location at 16700 Norwalk Boulevard to a project site located at 12881 166<sup>th</sup> Street in Cerritos. The District office facility would utilize the existing approximately 44,500-square-foot, two-story building fronting 166<sup>th</sup> Street. This building would not be demolished. Rather, the interior of the existing building would be remodeled, as appropriate, to accommodate the District's operations. Minor exterior modifications would be made to facilitate pedestrian ingress and egress for public meetings held in the building. No significant exterior or structural remodel would occur.

Ingress and egress to the site would be provided primarily from 166<sup>th</sup> Street. A total of 172 parking spaces are available on the site to serve the District office building.

### ***ABCUSD Kitchen/Warehouse Facility***

Currently, the kitchen facility and a warehouse facility for the District are housed in two separate buildings on the 16700 Norwalk Boulevard site. The proposed project would move the warehouse and central kitchen facility to a project site located at 12880 Moore Street in Cerritos. The site contains an existing building fronting Moore Street approximately 35,500 square feet in size and would be utilized to house the District's warehouse and central kitchen facility. The building would not be demolished. Rather, the building's interior would be remodeled, as appropriate, to accommodate the District's operations. No significant exterior or structural remodel would occur.

Ingress and egress to the 12800 Moore Street site would be provided primarily from Moore Street. A total of 43 parking spaces are available on the site to serve the District warehouse and central kitchen functions.

Both parcels at the 12880 Moore Street/12881 166<sup>th</sup> Street site maintain a reciprocal access easement, allowing for additional secondary ingress/egress to both properties from both 166<sup>th</sup> Street and Moore Street, respectively.

### **1.3.2 Project Phasing**

The proposed project would be constructed in several phases upon project approval and acquisition of the necessary permits.

## **1.4 EXISTING ZONING AND GENERAL PLAN**

The 16700 Norwalk Boulevard site is zoned Open Space (OS) and designated Educational by the Cerritos General Plan.

The 12800 Moore Street/12881 166<sup>th</sup> Street site is zoned Development Area One (ADP-1) and designated Light Industrial/ADP-1 by the Cerritos General Plan.

## **1.5 CITY ACTION REQUESTED**

The City of Cerritos/Cerritos Redevelopment Agency is seeking approval of the development and implementation of the proposed project. The intent of this Initial Study and Mitigated Negative Declaration (MND) is to enable the City of Cerritos, other responsible agencies, and the interested parties to evaluate the



## *1. Introduction*

---

environmental impacts of the proposed project, thereby enabling them to make informed decisions with respect to the requested entitlements listed below.

The proposed project will require the approval of a Master Agreement by the Cerritos Redevelopment Agency, the City of Cerritos, and the ABC Unified School District. The Master Agreement will provide for the disposition of the 12880 Moore Street/12881 166<sup>th</sup> Street property, the improvements on that property, the ground lease of the 16700 Norwalk Boulevard property, the development of the senior affordable housing, senior center, and park, and the relocation of the District's offices and kitchen/warehouse facility. The Master Agreement will also include other subagreements and implementation documents required to carry out the general terms of the proposed Master Agreement. In addition, the proposed project will require the following entitlements from the City of Cerritos:

### **16700 Norwalk Boulevard**

- Three Public Referral Projects (PRP) and/or Precise Plan approval as required by the Cerritos Municipal Code
- Development Code Amendment (DCA) to establish a separate area development plan (ADP-14)
- Development Map Amendment (DMA) to change the zoning from OS to ADP-14
- General Plan Amendment (GPA) to change the land use from Education to ADP-14
- Parcel Map to subdivide the property into three parcels

### **12880 Moore Street/12881 166<sup>th</sup> Street**

- Two Public Referral Projects (PRP) and/or Precise Plan approval as required by the Cerritos Municipal Code

## 2. *Environmental Checklist*

---

### 2.1 **BACKGROUND**

---

1. **Project Title:** Affordable Senior Housing Community, Senior Center, Park, and ABCUSD Kitchen/Warehouse Facility and Office Relocation Project

---

2. **Lead Agency Name and Address:**  
City of Cerritos  
18125 Bloomfield Avenue  
Cerritos, CA 90703

---

3. **Contact Person and Phone Number:**  
Robert A. Lopez  
562.916.1201

---

4. **Project Location:** 16700 Norwalk Boulevard (Affordable Senior Residential Community, Senior Center, and Park) and 12880 Moore Street/12881 166<sup>th</sup> Street (Kitchen/Warehouse Facility Relocation, and Office Relocation)

---

5. **Project Sponsor's Name and Address:**  
City of Cerritos/Cerritos Redevelopment Agency  
18125 Bloomfield Avenue  
Cerritos, CA 90703

---

6. **General Plan Designation:** 16700 Norwalk Boulevard – Educational  
12880 Moore Street/12881 166<sup>th</sup> Street – Light Industrial

---

7. **Zoning:** 16700 Norwalk Boulevard – Open Space  
12880 Moore Street/12881 166<sup>th</sup> Street – Area Development Plan One (ADP-1)

---

8. **Description of Project** (Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):  
  
See Section 1.3, *Project Description*.

---

9. **Surrounding Land Uses and Setting** (Briefly describe the project's surroundings):  
  
See Section 1.2.2, *Surrounding Land Uses*.

---

10. **Other Public Agencies Whose Approval Is Required** (e.g., permits, financing approval, or participation agreement):  
  
Los Angeles County Fire Department



## *2. Environmental Checklist*

---

Los Angeles Regional Water Quality Control Board  
ABC Unified School District  
Los Angeles County Department of Health Services  
Los Angeles County Sanitation Districts

## 2. Environmental Checklist

---

### 2.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklist on the following pages.

- |                                                        |                                                             |                                                   |
|--------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agricultural Resources             | <input type="checkbox"/> Air Quality              |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology / Soils          |
| <input type="checkbox"/> Hazards & 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 / Traffic |
| <input type="checkbox"/> Utilities / Service Systems   | <input type="checkbox"/> Mandatory Findings of Significance |                                                   |

### 2.3 DETERMINATION (TO BE COMPLETED BY THE LEAD AGENCY)

On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

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.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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.

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.



## 2. Environmental Checklist

---

### 2.4 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 would 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: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
- 5) Earlier analyses 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 Analyses 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. A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

## *2. Environmental Checklist*

---

- 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 explanation of each issue should identify:
  - a) the significance criteria or threshold, if any, used to evaluate each question; and
  - b) the mitigation measure identified, if any, to reduce the impact to less than significant.



## 2. Environmental Checklist

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>I. AESTHETICS. Would the project:</b>				
a) Have a substantial adverse effect on a scenic vista?			<b>X</b>	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?			<b>X</b>	
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			<b>X</b>	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?		<b>X</b>		
<b>II. AGRICULTURE 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. Would the project:</b>				
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?				<b>X</b>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				<b>X</b>
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				<b>X</b>
<b>III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:</b>				
a) Conflict with or obstruct implementation of the applicable air quality plan?			<b>X</b>	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			<b>X</b>	
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			<b>X</b>	
d) Expose sensitive receptors to substantial pollutant concentrations?			<b>X</b>	
e) Create objectionable odors affecting a substantial number of people?			<b>X</b>	
<b>IV. BIOLOGICAL RESOURCES. Would the project:</b>				
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?				<b>X</b>

## 2. Environmental Checklist

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?				<b>X</b>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				<b>X</b>
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?				<b>X</b>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				<b>X</b>
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?				<b>X</b>
<b>V. CULTURAL RESOURCES. Would the project:</b>				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?			<b>X</b>	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?		<b>X</b>		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		<b>X</b>		
d) Disturb any human remains, including those interred outside of formal cemeteries?			<b>X</b>	
<b>VI. GEOLOGY AND SOILS. Would the project:</b>				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			<b>X</b>	
ii) Strong seismic ground shaking?			<b>X</b>	
iii) Seismic-related ground failure, including liquefaction?			<b>X</b>	
iv) Landslides?				<b>X</b>
b) Result in substantial soil erosion or the loss of topsoil?			<b>X</b>	



## 2. Environmental Checklist

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
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?			X	
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?			X	
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?				X
<b>VII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:</b>				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?		X		
b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
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?			X	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				X
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

## 2. Environmental Checklist

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>VIII. HYDROLOGY AND WATER QUALITY. Would the project:</b>				
a) Violate any water quality standards or waste discharge requirements?			<b>X</b>	
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			<b>X</b>	
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site			<b>X</b>	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			<b>X</b>	
e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			<b>X</b>	
f) Otherwise substantially degrade water quality?			<b>X</b>	
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				<b>X</b>
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				<b>X</b>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			<b>X</b>	
j) Inundation by seiche, tsunami, or mudflow?			<b>X</b>	
<b>IX. LAND USE AND PLANNING. Would the project:</b>				
a) Physically divide an established community?				<b>X</b>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			<b>X</b>	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				<b>X</b>



## 2. Environmental Checklist

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>X. MINERAL RESOURCES. Would the project:</b>				
a) Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?				<b>X</b>
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?				<b>X</b>
<b>XI. NOISE. Would the project result in:</b>				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?			<b>X</b>	
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			<b>X</b>	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			<b>X</b>	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?			<b>X</b>	
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 expose people residing or working in the project area to excessive noise levels?				<b>X</b>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				<b>X</b>
<b>XII. POPULATION AND HOUSING. Would the project:</b>				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?			<b>X</b>	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				<b>X</b>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				<b>X</b>
<b>XIII. PUBLIC SERVICES. 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:</b>				
a) Fire protection?			<b>X</b>	
b) Police protection?			<b>X</b>	
c) Schools?			<b>X</b>	
d) Parks?			<b>X</b>	
e) Other public facilities?				<b>X</b>

## 2. Environmental Checklist

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
<b>XIV. 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?			<b>X</b>	
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?			<b>X</b>	
<b>XV. TRANSPORTATION/TRAFFIC. Would the project:</b>				
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?			<b>X</b>	
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?			<b>X</b>	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				<b>X</b>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			<b>X</b>	
e) Result in inadequate emergency access?			<b>X</b>	
f) Result in inadequate parking capacity?			<b>X</b>	
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?			<b>X</b>	
<b>XVI. UTILITIES AND SERVICE SYSTEMS. Would the project:</b>				
a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?			<b>X</b>	
b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			<b>X</b>	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			<b>X</b>	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources or are new or expanded entitlements needed?			<b>X</b>	
e) Result in a determination by the waste water 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?			<b>X</b>	



## 2. Environmental Checklist

<i>Issues</i>	<i>Potentially Significant Impact</i>	<i>Less Than Significant With Mitigation Incorporated</i>	<i>Less Than Significant Impact</i>	<i>No Impact</i>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?		X		
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X
<b>XVII. MANDATORY FINDINGS OF SIGNIFICANCE.</b>				
a) Does the project have the potential to 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, 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?			X	
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.)			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		

### 3. *Environmental Analysis*

---

Section 2.3 provided a checklist of environmental impacts. This section provides an evaluation of the impact categories and questions contained in the checklist and identifies mitigation measures, if applicable.

#### 3.1 **AESTHETICS**

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

**Less Than Significant Impact.** Neither project site is part of a scenic vista. Both project sites are located in an urban area and no scenic vistas, such as mountain or ocean views, are present on or within the vicinity of the project site. Both project areas are characterized by a variety of land uses, including residential, commercial, and office development. Specifically, the 16700 Norwalk Boulevard site is developed with the District office facility, and the 12880 Moore Street/12881 166<sup>th</sup> Street site is developed with office and light industrial uses. Implementation of the proposed project would not result in an adverse impact to a scenic vista and no mitigation measures are necessary.

##### b) **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**Less Than Significant Impact.** According to the California Department of Transportation California Scenic Highway Mapping System, neither project site is located on or near a major state-designated scenic highway. No scenic resources, such as native or heritage trees, rock outcroppings, or historic buildings, are located on either project site. No adverse impacts to scenic resources would occur as a result of the proposed project. No mitigation measures are necessary.

##### c) **Substantially degrade the existing visual character or quality of the site and its surroundings?**

**Less Than Significant Impact.** Both project sites are fully developed with a variety of urban uses and both sites are located within urbanized areas.

#### **16700 Norwalk Boulevard**

The development of the affordable senior residential community, senior center, and park would change the views of the site from aged office uses to a unified, landscaped residential development. The project would remove most of the structures on the site and replace them with a new landscaped residential development containing an affordable senior residential community, a senior center, and a park. Therefore, the project could be considered an aesthetic improvement within the neighborhood.

The project would include substantial landscaping and open space areas, in addition to the park, throughout the project site in accordance with the City's General Plan and design guidelines for residential communities. The parkway areas facing all perimeter streets would be landscaped with new sidewalks, trees and shrubs, providing an enhanced interface with neighboring properties. The City also proposes to install a sculpture to be located in a highly visible parkway area as part of its Art in Public Places program.



### *3. Environmental Analysis*

---

The project would be compatible with the existing visual character of the surrounding condominium complexes. The design and construction of the proposed development would be in accordance with City Goals and Policies contained in the General Plan and the project would be subject to the City's Design guidelines for residential communities. No adverse impacts to visual character or quality would result. No mitigation is required.

#### **12880 Moore Street/12881 166<sup>th</sup> Street**

The relocation of the ABCUSD administrative offices, central kitchen facility, and warehouse from 16700 Norwalk Boulevard to 12800 Moore Street/12881 166<sup>th</sup> Street would not involve any demolition at this location, as the existing buildings on the site would be renovated and reused by the District for their ongoing operations. No major changes to the site would occur. Because the project would not change the existing character of the project site and would not degrade the visual character or quality of the site or surrounding areas. No adverse impacts to visual character or quality would result. No mitigation is 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 With Mitigation Incorporated.**

#### **16700 Norwalk Boulevard**

This component of the proposed project would be located in an area developed with a mixture of land uses, including residential and commercial. Nighttime lighting in the project area includes typical residential lighting uses and security lighting. During the day, glare impacts could result from glass and other reflective materials used in the construction of the proposed project.

An approximately four-acre park is proposed to occupy the eastern portion of the project site. Given its size, the park would have the potential to accommodate a number of recreational activities over its large open space. Any lighting of the recreational open space would be subject to the approval of adjacent residents. If approved, open space lighting would likely occur in the future during evening hours. A professionally prepared lighting plan would be prepared to ensure that the lighting is strategically located to reduce potential impacts to a level of insignificance.

#### **12880 Moore Street/12881 166<sup>th</sup> Street**

The relocation of the District offices would involve moving the ABCUSD administrative offices, central kitchen, and warehouse from 16700 Norwalk Boulevard to 12880 Moore Street/12881 166<sup>th</sup> Street. The buildings currently existing on this site would be renovated and reused by the District for their ongoing operations. No demolition would occur on the site.

Because no substantial changes are being proposed for this site, no significant impacts to light or glare would occur as a result of the relocation of the District offices, central kitchen facility and warehouse.

The Cerritos Municipal Code (Section 22.80.440) states that new lighting should not increase the level of illumination at the adjacent residential property boundaries by more than one foot-candle above the ambient night illumination.

The following mitigation measures would ensure both components of the project are reduced to a level of less than significant.

#### Mitigation Measures

1. All outdoor lighting shall be designed and installed so that all direct rays are confined to the site and adjacent properties are protected from glare. The lighting plans for each component of the project shall comply with all City codes and ordinances related to lighting and glare, and shall not exceed the City's designated threshold of one horizontal foot-candle.
2. Luminaries shall be provided with filtering louvers and hoods. During installation, the luminaries shall be aimed and corrected by a field crew to aim the lights away from sensitive residential uses.

#### 3.2 AGRICULTURE 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 Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

- a) **Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

**No Impact.** Both project sites are located in developed areas and neither site is currently utilized for agricultural purposes. Neither site is designated Prime, Unique, or Farmland of Statewide Importance according to the State Farmland Maps. No significant impacts would occur and no mitigation measures are necessary.

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

**No Impact.** Neither project site is currently zoned or utilized for agricultural purposes and neither site falls under a Williamson Act Contract. No significant impacts would occur and no mitigation measures are necessary.

- c) **Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?**

**No Impact.** Neither project site is currently utilized for agricultural purposes; therefore, the project would not result in the conversion of farmland to nonagricultural uses. No impacts to farmland would occur. No mitigation measures are necessary.



## 3. *Environmental Analysis*

---

### **3.3 AIR QUALITY**

The Air Quality section addresses the impacts of the proposed project on ambient air quality and the exposure of people, especially sensitive individuals, to unhealthful pollutant concentrations. Air pollutants of concern include ozone, carbon monoxide, particulate matter, and oxides of nitrogen. This section analyzes the type and quantity of emissions that would be generated by the construction and operation of the proposed project.

#### **Climate/Meteorology**

Air quality is affected by both the rate and location of pollutant emissions and by meteorological conditions that influence movement and dispersal of pollutants. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients, along with local topography, provide the link between air pollutant emissions and air quality.

The City of Cerritos is located within the South Coast Air Basin (SoCAB) which is managed by the South Coast Air Quality Management District (SCAQMD). The SoCAB incorporates approximately 6,645 square miles within four counties—San Bernardino, Riverside, Los Angeles, and Orange—including some portions of what was previously known as the Southeast Desert Air Basin. In May 1996, the boundaries of the South Coast Air Basin were changed by the California Air Resources Board (CARB) to include the Beaumont-Banning area.

The distinctive climate of the SoCAB is determined by its terrain and geographic location. The SoCAB is a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean to the southwest and high mountains around the rest of its perimeter. The general region lies in the semipermanent high-pressure zone of the eastern Pacific, resulting in a mild climate tempered by cool sea breezes with light average wind speeds. The usually mild climatological pattern is interrupted occasionally by periods of extremely hot weather, winter storms, or Santa Ana winds.

The vertical dispersion of air pollutants in the SoCAB is hampered by the presence of persistent temperature inversions. High-pressure systems, such as the semipermanent high-pressure zone in which the SoCAB is located, are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, resulting in the formation of high-level subsidence inversions. Such inversions restrict the vertical dispersion of air pollutants released into the marine layer, and together with strong sunlight, can produce worst-case conditions for the formation of photochemical smog.

The atmospheric pollution potential of an area is largely dependent on winds, atmospheric stability, solar radiation, and terrain. The combination of low wind speeds and low-level inversions produces the greatest concentration of air pollutants. On days without inversions, or on days of winds averaging over 15 mph, smog potential is greatly reduced.

#### **Air Quality Regulations, Plans and Policies**

The Federal Clean Air Act (FCAA) was passed in 1963 by the U.S. Congress and has been amended several times. The 1970 Clean Air Act Amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National Ambient Air Quality Standards (NAAQS) and the Prevention of Significant Deterioration (PSD) program. The 1990 Amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States.

### 3. Environmental Analysis

In 1988, the State Legislature passed the California Clean Air Act (CCAA), which established California's air quality goals, planning mechanisms, regulatory strategies, and standards of progress for the first time. The CCAA provides the state with a comprehensive framework for air quality planning regulation. The CCAA requires attainment of state ambient air quality standards by the earliest practicable date. Attainment Plans are required for air basins in violation of the state ozone (O<sub>3</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), and particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>) standards. Preparation of and adherence to attainment plans are the responsibility of the local air pollution districts or air quality management districts.

State and federal agencies have set ambient air quality standards for certain air pollutants. NAAQS have been established for the following criteria pollutants: CO, O<sub>3</sub>, SO<sub>2</sub>, NO<sub>2</sub>, lead (Pb), and respirable particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>). The state standards for these criteria pollutants are more stringent than the corresponding federal standards. Table 1 summarizes the state and federal standards.

**Table 1  
Ambient Air Quality Standards for Criteria Pollutants**

<i>Pollutant</i>	<i>Averaging Time</i>	<i>California Standard</i>	<i>Federal Primary Standard</i>	<i>Major Pollutant Sources</i>
Ozone (O <sub>3</sub> )	1-hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8-hours	0.07 ppm	0.08 ppm	
Carbon Monoxide (CO)	1-hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8-hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO <sub>2</sub> )	Annual Average	*	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1-hour	0.25 ppm	*	
Sulfur Dioxide (SO <sub>2</sub> )	Annual Average	*	0.03 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1-hour	0.25 ppm	*	
	24-hours	0.04 ppm	0.14 ppm	
Suspended Particulate Matter (PM <sub>10</sub> )	Annual Arithmetic Mean	20 µg/m <sup>3</sup>	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24-hours	50 µg/m <sup>3</sup> (PM <sub>10</sub> )	150 µg/m <sup>3</sup> (PM <sub>10</sub> )	
Suspended Particulate Matter (PM <sub>2.5</sub> )	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24-hours	*	35 µg/m <sup>3</sup>	
Lead (Pb)	Monthly	1.5 µg/m <sup>3</sup>	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 µg/m <sup>3</sup>	
Sulfates (SO <sub>4</sub> )	24-hours	25 µg/m <sup>3</sup>	*	Industrial processes.

ppm: parts per million; µg/m<sup>3</sup>: micrograms per cubic meter

\* = standard has not been established for this pollutant/duration by this entity.

Source: California Air Resources Board. Updated November 2006.



### *3. Environmental Analysis*

---

Areas are classified under the FCAA as either attainment or nonattainment areas for each criteria pollutant, based on whether the NAAQS have been achieved or not. The SoCAB is designated by both the state and the Environmental Protection Agency (USEPA) as a nonattainment area for O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> and by the USEPA for CO.

#### **AB32: Global Warming Solutions Act**

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as greenhouse gases (GHG) to the atmosphere. The primary source of these GHG is from fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHG—water vapor, CO<sub>2</sub>, methane (CH<sub>4</sub>), and ozone (O<sub>3</sub>)—that are the likely cause of an increase in global average temperatures observed within the 20<sup>th</sup> and 21<sup>st</sup> centuries. Other GHG identified by the IPCC that contribute to global warming effect to a lesser extent include nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons.

Assembly Bill 32 (AB 32), the Global Warming Solutions Act, was passed by the California state legislature on August 31, 2006. AB 32 requires the state's global warming emissions to be reduced to 1990 levels by year 2020. Pursuant to the requirements of AB 32, the state's reduction in global warming emissions will be accomplished through an enforceable statewide cap on global warming emissions that will be phased in starting in 2012. In order to effectively implement the cap, AB 32 directs CARB to develop appropriate regulations and establish a mandatory reporting system to track and monitor global warming emissions levels by January 2008. CARB must prepare a plan demonstrating how the 2020 cap can be met by January 1, 2009, or earlier. Until such a plan has been adopted, direction for evaluation of, and potential mitigation for, incremental project impacts to global warming is not available. It is therefore not addressed within this Initial Study.

#### **Existing Air Quality**

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and the City of Cerritos area are best documented by measurements made by the SCAQMD. The City of Cerritos is located within the central portion of Source Receptor Area (SRA) 4 – Coastal (South Los Angeles County Coastal). The SCAQMD air quality monitoring station in the SRA 4 that is closest to the proposed project site is the North Long Beach Monitoring Station, located at 3648 North Long Beach Boulevard in the City of Long Beach. Data from this station is summarized in Table 2 below.

Because of the coastal location, this data shows this monitoring station rarely has violations of the state standard and has not violated the federal ozone standard in the last five years. The data also indicate that the area regularly exceeds the state PM<sub>10</sub> standards. The federal PM<sub>2.5</sub> standard occasionally exceeded the federal standard at this station. The SO<sub>2</sub>, CO, and NO<sub>2</sub> AAQS have not been violated in the last five years at this station.

### 3. Environmental Analysis

**Table 2  
Ambient Air Quality Monitoring Summary**

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2002	2003	2004	2005	2006
<b>Ozone<sup>1</sup></b>					
State 1-Hour $\geq$ 0.09 ppm	0	1	0	0	0
Federal 8-Hour $>$ 0.08 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.084	0.099	0.090	0.091	0.081
Max. 8-Hour Conc. (ppm)	0.064	0.068	0.084	0.069	0.058
<b>Carbon Monoxide<sup>1</sup></b>					
State 8-Hour $>$ 9.0 ppm	0	0	0	0	0
Federal 8-Hour $\geq$ 9.5 ppm	0	0	0	0	0
Max. 8-Hour Conc. (ppm)	4.56	4.66	3.36	3.51	3.36
<b>Nitrogen Dioxide<sup>1</sup></b>					
State 1-Hour $\geq$ 0.25 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.130	0.135	0.121	0.136	0.102
<b>Sulfur Dioxide (SO<sub>2</sub>)<sup>1</sup></b>					
State 24-Hour $\geq$ 0.04 ppm	0	0	0	0	0
Federal 24-Hour $\geq$ 0.14 ppm	0	0	0	0	0
Max 24-Hour Conc. (ppm)	0.008	0.008	0.013	0.010	0.010
<b>Coarse Particulates (PM<sub>10</sub>)<sup>1</sup></b>					
State 24-Hour $>$ 50 $\mu\text{g}/\text{m}^3$	5	4	4	4	5
Federal 24-Hour $>$ 150 $\mu\text{g}/\text{m}^3$	0	0	0	0	0
Max. 24-Hour Conc. ( $\mu\text{g}/\text{m}^3$ )	74	63	72	66	78
<b>Fine Particulates (PM<sub>2.5</sub>)<sup>1</sup></b>					
Federal 24-Hour $>$ 65 <sup>2</sup> $\mu\text{g}/\text{m}^3$	0	3	1	0	0
Max. 24-Hour Conc. ( $\mu\text{g}/\text{m}^3$ )	62.7	115.2	66.6	53.8	58.5

ppm: parts per million;  $\mu\text{g}/\text{m}^3$ , or micrograms per cubic meter

<sup>1</sup> Data obtained from the North Long Beach Monitoring Station, located at 3648 North Long Beach Boulevard, Long Beach, CA 90807.

<sup>2</sup> The USEPA recently revised the 24-hour PM<sub>2.5</sub> standard from 65  $\mu\text{g}/\text{m}^3$  to 35  $\mu\text{g}/\text{m}^3$ . However, this standard did not take affect until December 2006.

Source: South Coast Air Quality Management District, Ambient Air Quality Monitoring Data, obtained October 2006.



#### Sensitive Receptors

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

Residential areas are also considered to be sensitive receptors to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Schools are also considered sensitive receptors, as children are present for extended durations and engage in regular outdoor activities. Recreational land uses are considered moderately sensitive to air pollution. Although exposure periods are generally short, exercise places a high demand on respiratory functions, which can be impaired by air pollution. In addition, noticeable air pollution can detract from the enjoyment of recreation. Industrial and commercial areas are considered the least sensitive to air pollution. Exposure periods are relatively short and intermittent, as the majority of the workers tend to stay

### 3. Environmental Analysis

---

indoors most of the time. In addition, the working population is generally the healthiest segment of the public.

#### Methodology

Projected air emissions are calculated using the URBEMIS2002 emissions model distributed by the SCAQMD. The URBEMIS2002 compiles an emissions inventory of construction, stationary and vehicle emissions sources. The URBEMIS2002 model uses EMFAC2002 emissions factors for vehicle traffic. The calculated emissions of the project are compared to thresholds of significance for individual projects using the SCAQMD's *CEQA Air Quality Handbook*.

#### Thresholds of Significance

CEQA allows for the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. The SCAQMD has established regional air quality thresholds of significance for the construction and operational phases of projects, as shown in Table 3. In addition to the daily thresholds listed above, projects are also subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts and Localized Significance Thresholds (LSTs).

**Table 3**  
**SCAQMD Threshold of Significance**

<i>Air Pollutant</i>	<i>Construction Phase</i>	<i>Operational Phase</i>
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO <sub>x</sub> )	100 lbs/day	55 lbs/day
Sulfur Oxides (SO <sub>x</sub> )	150 lbs/day	150 lbs/day
Coarse Particulates (PM <sub>10</sub> )	150 lbs/day	150 lbs/day
Fine Particulates (PM <sub>2.5</sub> )	55 lbs/day	55 lbs/day

The localized CO impacts are based on the California one-hour and eight-hour CO standards, which are as follows:

- 1 hour = 20 parts per million
- 8 hour = 9 parts per million

#### Localized Significance Thresholds

In addition to the CO hot spot analysis, the SCAQMD developed Localized Significance Thresholds (LSTs) for emissions of NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub> generated at the project site (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent national Ambient Air Quality Standards (NAAQS) or California Ambient Air Quality Standard (CAAQS). LSTs are based on the ambient concentrations of that pollutant within the project SRA area and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects of 5 acres and less. Table 4 lists the LSTs for a 5-acre project site within SRA 4 with sensitive receptors located within 61 meters from on-site activities. If emissions exceed the LST for a five-acre site, then dispersion modeling needs to be conducted. Use of a five-acre site model for the project site would result in more stringent LST because emissions would occur in a more concentrated area closer to the nearest sensitive receptors than would occur in reality, due to the

### 3. Environmental Analysis

project site being much larger than five acres. Projects larger than five acres can determine the localized significance for construction by performing dispersion modeling for emissions that exceed the localized air quality standards.

**Table 4**  
**SCAQMD Localized Significance Thresholds For SRA 4**

<i>Air Pollutant</i>	<i>Construction Phase</i>	<i>Operational Phase<sup>1</sup></i>
<b>For a 5-Acre Project Site at 61 Meters</b>		
Carbon Monoxide (CO)	1,571 lbs/day	1,571 lbs/day
Nitrogen Oxides (NO <sub>x</sub> )	266 lbs/day	266 lbs/day
Coarse Inhalable Particulates (PM <sub>10</sub> )	58 lbs/day	14 lbs/day
Fine Inhalable Particulates (PM <sub>2.5</sub> )	12 lbs/day	14 lbs/day

<sup>1</sup> Only area source air pollutant emissions generated by a project are assessed against the operational emissions because project-related mobile source emissions are generated off-site.  
Source: SCAQMD, *Localized Significance Methodology*, June 2003, and Appendix B PM<sub>2.5</sub> Localized Significance Threshold Look-up Tables.

Where available, the significance criteria established by the applicable air quality management 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?**

**Less Than Significant Impact.** A consistency determination plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration at an early enough stage to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to clean air goals contained in the AQMP. Only new or amended General Plan elements, Specific Plans, and major projects need to undergo a consistency review. This is because the AQMP strategy is based on projections from local General Plans.

The proposed project would require a general plan amendment to change the general plan designation on the 16700 Norwalk Boulevard site from Education to ADP-14, the issue of air quality conformity or consistency with the regional air quality planning process is determined by comparing the proposed project with the regional growth forecasts contained in the General Plan. The key to determining consistency with the AQMP is to evaluate the project's contribution to growth projections by ascertaining whether the project is being implemented consistent with the applicable General Plan and whether growth forecasts for the region are meeting or exceeding the forecasts. The proposed project is being constructed to address the regional housing needs assessment (RHNA) for very low-, low-, and moderate-income housing for seniors. The RHNA forecasts for each city in California are projected by the region's regional metropolitan planning organization (MPO), which for the City of Cerritos is SCAG. As stated above, SCAG population projections are used to project the SoCAB's emissions inventory for future years in order to attain the national and state AAQS. Because the project is being constructed to meet SCAG growth forecasts the project would be consistent with the AQMP. Furthermore, as described in Section 3.12, the project would result in an increase in population within the City of Cerritos of 825 people, or 1 percent of the City of Cerritos' population. Consequently, the project would be consistent with the AQMP and impacts would be less than significant. No mitigation measures are necessary.



### 3. Environmental Analysis

---

#### b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

**Less Than Significant Impact.** The proposed project involves the construction and operation of a 247-unit affordable senior residential community, a senior center, and a park on the 15.7-acre 16700 Norwalk Boulevard site as well as the construction and operation of the relocated ABCUSD offices, central kitchen facility, and warehouse on the 4.6-acre 12880 Moore Street/12881 166<sup>th</sup> Street site in the City of Cerritos. Air pollutant emissions associated with the project could occur over the short term for site preparation and building construction activities. In addition, emissions would result from the long-term operation of the completed project from facility-related energy consumption and vehicles traveling to and from the project site.

#### Short-Term Air Quality Impacts

Construction activities would result in the generation of air pollutants. These emissions would primarily be (1) exhaust emissions from powered construction equipment, (2) dust generated from demolition, earth-moving, excavation and other construction activities, (3) motor vehicle emissions associated with vehicle trips, and (4) emissions of reactive organic compounds from the application of asphalt, paints, and coatings.

Construction equipment is classified as off-road vehicles. The first federal standards for off-road diesel engines were adopted by the United States Environmental Protection Agency (USEPA) in 1994 for engines over 37 kW (50 hp), referred to as Tier 1 standards. Tier 2 equipment is generally newer and has higher emission control standards than the Tier 1 equipment.

Construction would be completed in discrete phases with little overlap as follows:

- **Phase 1 – New ABCUSD Offices, Kitchen, and Warehouse (4.6-acre site).** The first phase would be renovation of the existing office and warehouse buildings at the 4.6-acre site for the new ABCUSD offices, kitchen, and warehouse facilities. This would need to be completed prior to the start of Phase 2 so that the existing district functions could be relocated. As such, no overlap would occur between these phases. Renovations are forecast to begin in March of 2008 and be completed by October the same year. Because renovations associated with the ABCUSD offices, kitchen, and warehouse would not entail use of large construction equipment typically used for demolition and grading activities, construction emissions would be a small fraction of air pollutant emissions generated during construction of the project and are therefore omitted from the table below.
- **Phase 2 – Affordable Residential Senior Community, Senior Center, and Park (15.7-acre site).** The second phase would be construction of the 247 affordable senior housing units, 13,000-square-foot senior center, and park on the 15.7-acre site. Demolition of the existing 56,500-square-foot administration building, 16,500 square-foot kitchen facility, and 24,500-square-foot warehouse would be necessary prior to building construction. Demolition of the existing ABCUSD facilities is forecast to begin in January 2009 (following relocation to the new site) and be completed by February of 2009. Construction of the residential buildings would occur afterwards and be complete by February 2011 while construction of the senior center and park would commence in July of 2011 and be complete by June 2012.

Construction emissions were estimated using the SCAQMD's Urban Emissions (URBEMIS2002) emissions inventory model. Modeling results are summarized in Table 5 and the model run is included in Appendix A. The model separates out the grading and building phases, as these operations would not be expected to

### 3. Environmental Analysis

overlap. On the other hand, as a reasonable worst-case, the model does assume that both the construction and painting of the structures and application of asphalt do overlap.

**Table 5  
Maximum Daily Construction Emissions**

Source <sup>1</sup>	Pollutants (lb/day)						
	CO	NO <sub>x</sub>	ROG	SO <sub>2</sub>	PM <sub>10</sub> <sup>2</sup>	PM <sub>2.5</sub> <sup>2</sup>	CO <sub>2e</sub> <sup>3</sup>
<b>Phase 2: Senior Housing, Senior Center and Park (15.7-acre site):</b>							
Demolition	15	33	3	<1	24	6	4,003
Site Grading	14	27	3	0	46	11	2,372
Construction Emissions	34	23	33	<1	2	1	5,779
SCAQMD Regional Emissions Threshold	550	100	75	150	150	55	NA
Exceeds Threshold	No	No	No	No	No	No	NA

<sup>1</sup> Construction Equipment Mix based on the URBEMIS2007 default construction equipment mix.

<sup>2</sup> Fugitive dust emissions assume implementation of SCAQMD Rule 403 Mitigation measures including watering disturbed surfaces at least two times daily.

<sup>3</sup> CO<sub>2e</sub> emissions are provided for informational purposes only. The SCAQMD or CARB have yet to establish regional emissions thresholds for this air pollutant. However, CO<sub>2e</sub> emissions generated by the project represent a small fraction of state-wide GHG emissions, and an even smaller fraction of world-wide GHG emissions.

Source: URBEMIS2007 Version 9.2.0. The Planning Center. August 2007.

As shown in this Table, ROG emissions during the architectural coating phase of building construction and NO<sub>x</sub> emissions during the construction grading of the Cerritos affordable housing, senior center, and park would exceed the SCAQMD threshold. With the adherence to the following mitigation measures, ROG and NO<sub>x</sub> emissions would be reduced to below the SCAQMD and impacts would be less than significant as shown in Table 6.



#### Long-Term Operation-Related Impacts

The major source of long-term air quality impacts are typically associated with the emissions produced from project-generated vehicle trips. Stationary sources related to the use of natural gas to meet the heating demand of the proposed structures and landscape maintenance add only minimally to these values.

Based on the traffic impact analysis prepared by Kunzman Associates (Revised August 2007), the proposed project would generate 1,744 new trips per day at the 15.7-acre project site while the existing ABCUSD offices at the 15.7-acre project site currently generate 609 trips. The 609 average daily trips associated with the existing ABCUSD offices would be redistributed on the roadway system to the 4.6-acre site located the northeast of the 15.7-acre project site. The existing land uses at the 4.6-acre site currently generate 505 average daily trips. As a result, the relocated ABCUSD offices would result in a net increase in 104 average daily trips at the 4.6-acre site. Air pollutant emissions generated by an increase project-related trips and proposed land uses are based on the URBEMIS2007 computer model. Project emissions are included in Table 6. As shown in this table, no emissions are projected to exceed their respective criterion; therefore, no significant long-term air quality impacts would occur as a result of the proposed project. No mitigation measures are necessary.

### 3. Environmental Analysis

**Table 6  
Daily Operational Emission**

Source	Pollutants (lb/day)						
	CO	NO <sub>x</sub>	ROG	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>	CO <sub>2e</sub> <sup>1</sup>
<b>Summer Emissions</b>							
Mobile Sources	162	16	14	<1	30	6	17,672
Area Sources	4	3	14	0	<1	<1	3,248
Operational Total (Net Increase)	166	19	27	<1	30	6	20,920
SCAQMD Threshold	550	55	55	150	150	55	NA
Exceeds Threshold	No	No	No	No	No	No	NA
<b>Winter Emissions</b>							
Mobile Sources	155	19	14	<1	30	6	15,970
Area Sources	2	4	13	<1	<1	<1	4,986
Operational Total (Net Increase)	156	23	28	<1	30	6	20,955
Threshold	550	55	55	150	150	55	NA
Exceeds Threshold	No	No	No	No	No	No	NA

<sup>1</sup> CO<sub>2e</sub> emissions are provided for informational purposes only. The SCAQMD or CARB have yet to establish regional emissions thresholds for this air pollutant. However, CO<sub>2e</sub> emissions generated by the project represent a small fraction of state-wide GHG emissions, and an even smaller fraction of world-wide GHG emissions.

Source: URBEMIS2007 Version 9.2.0, The Planning Center August 2007.

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

**Less Than Significant Impact.** In accordance with SCAQMD methodology, any project that does not exceed or can be mitigated to less than the daily threshold values does not add significantly to a cumulative impact. URBEMIS modeling demonstrates that project implementation would not result in emissions in excess of the SCAQMD threshold values and as such, the project would not add significantly to any cumulative impact.

**d) Expose sensitive receptors to substantial pollutant concentrations?**

**Less Than Significant Impact.** The project has the potential to expose sensitive receptors to elevated pollutant concentrations if it would cause or contribute significantly to elevated pollutant concentration levels or place the project in an area with elevated pollutant concentrations due to close proximity of the project site to a major air pollutant source. Unlike the mass (weight) of emissions shown in Table 8 and Table 9 (described as pounds per day), localized concentrations refer to an amount of pollutant in a volume of air (ppm or µg/m<sup>3</sup>) and can be correlated to potential health effects.

**CO Hotspot Analysis**

An impact is also potentially significant if emission levels exceed the state or federal ambient air quality standards, thereby exposing receptors to substantial pollutant concentrations. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations.

### 3. Environmental Analysis

---

Areas of vehicle congestion have the potential to create “pockets” of CO called “hot spots.” These pockets have the potential to exceed the state 1-hour standard of 20 ppm or the 8-hour standard of 9.0 ppm. Note that the federal levels are based on 1- and 8-hour standards of 35 and 9 ppm, respectively. Thus, an exceedance condition will occur based on the state standards prior to exceedance of the federal standard.

Because traffic congestion is highest at intersections where vehicles queue and are subject to reduced speeds, these hot spots are typically produced at intersection locations. Typically, for an intersection to exhibit a significant CO concentration, it would operate at level of service (LOS) E or worse. According to the traffic impact analysis prepared by Kunzman Associates, all local intersections would operate at LOS D or better during the morning and evening peak hour and would continue to do so with project implementation. Therefore the project would not generate any CO hot spots or site-sensitive receptors proximate to any intersections that are subject to significant CO concentrations. The project would not expose sensitive receptors to substantial pollutant concentrations. No impact would result from this project, and no mitigation measures are necessary.

#### **Localized Significance Thresholds – 4.6-Acre Site**

Localized significance thresholds (LSTs) were developed by the SCAQMD to identify whether or not a project may generate significant adverse localized air quality impacts. LSTs represent the maximum emissions from a project that would cause or contribute to an exceedance of the most stringent applicable federal or state AAQS and were developed based on the ambient concentrations of that pollutant for each SRA. LSTs are applicable only to the following pollutants: NO<sub>2</sub>, CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. Because pollutants emitted during construction greatly depend on the proximity of the source to the receptor, LSTs are based on the location of the emission source relative to the sensitive receptors as well as the quantity of emission. Because the project site is not an industrial project or does not involve any significant on-site air pollution generating sources such as diesel-powered generators, idling trucks, or other stationary source, no operational impacts would occur (see Table 7). Likewise, interior renovations at the 4.6-acre project site would not entail use of a large number of heavy construction equipment and therefore emissions generated during that construction phase would not be substantial.



### 3. Environmental Analysis

**Table 7**  
**Maximum Daily Operational Emissions Compared with the LST**

Source <sup>1</sup>	Pollutants (lbs/day)			
	CO	NO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Senior Housing, Senior Center and Park (15.7-acre site)</b>				
Onsite Operational Emissions <sup>1</sup>	6	4	1	<1
SCAQMD LSTs for a 5-acre site in SRA 4 with receptors at 61 meters	1,571	266	14	14
Exceeds Threshold	No	No	No	No

<sup>1</sup> Assumes on-site vehicle travel is approximately 700 feet per trip.

Source: The Planning Center, using the URBEMIS2007 Version 9.2.0. and the SCAQMD's Localized Significance Threshold Methodology.

Table 8 shows construction emission rates and LSTs the 15.7-acre project site in SRA 4 based on the distance to the nearest receptor (61 meters). As shown in this Table 8, project emissions at the 15.7-acre project would not exceed LSTs for a 5-acre site. Because the project's construction emissions would not exceed the stringent LST for a 5-acre site, no air pollutant concentrations from project-related construction activities would exceed the California or federal AAQS and no significant air quality impact would occur from exposure of persons to substantial air pollutant concentrations for construction activities at the 15.7-acre site. Project-related construction activities would not result in a significant air quality impact from exposure of persons to substantial air pollutant concentrations.

**Table 8**  
**Maximum Daily Construction Emissions Compared with the LST**

Source <sup>1</sup>	Pollutants (lbs/day)			
	CO	NO <sub>x</sub>	PM <sub>10</sub> <sup>2</sup>	PM <sub>2.5</sub> <sup>2</sup>
<b>Senior Housing, Senior Center and Park (15.7-acre site)</b>				
Demolition	15	33	24	6
Site Grading	14	27	46	11
Building Construction	34	23	2	1
SCAQMD LSTs for a 5-acre site in SRA 4 with receptors at 61 meters	1,571	266	58	12
Exceeds Threshold	No	No	No	No

<sup>1</sup> Construction Equipment Mix based on the URBEMIS2007 default construction equipment mix.

<sup>2</sup> Fugitive dust emissions assume implementation of SCAQMD Rule 403 Mitigation measures including watering disturbed surfaces at least two times daily.

Source: The Planning Center, using the URBEMIS2007 Version 9.2.0. and the SCAQMD's Localized Significance Threshold Methodology.

#### CARB Land Use Compatibility

Recent air pollution studies have shown an association between proximity to diesel pollution sources and a variety of health effects, which are attributed to a high concentration of air pollutants generated by vehicle exhaust. Because placement of sensitive land uses falls outside CARB jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* in April 2005 pertaining to the siting of sensitive land uses in the vicinity of freeways, distribution centers, railyards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was

### 3. Environmental Analysis

---

developed as a tool for assessing the compatibility and health risks of placing sensitive receptors near existing pollution sources.

CARB's recommendations were developed from a compilation of recent studies that evaluated data on the adverse health effects of proximity to air pollution sources. The key observation in these studies is that close proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risk from motor vehicle traffic: diesel particulate matter (diesel PM) from trucks, and benzene and 1,3 butadiene from passenger vehicles. The SCAQMD's MATES II air quality study attributes 70 percent of the health risk for contracting lung cancer in the SoCAB to diesel particulates.

CARB recommends avoiding the siting of new sensitive land uses within "500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day." The proposed affordable senior housing units would be located over 500 feet north of State Route 91 (SR-91) and would fall outside of the recommended buffer distance for freeways. The project would not expose residents to concentrations of air pollutants that exceed the background ambient air concentrations. CARB Land Use Compatibility impacts would be less than significant. No mitigation measures are necessary.

#### e) Create objectionable odors affecting a substantial number of people?

**Less Than Significant Impact.** Project construction would involve the use of heavy equipment creating exhaust, pollutants from on-site earth movement, and from equipment bringing asphalt and other building materials to the site. With regards to nuisance odors, any air quality impacts would be confined to the immediate vicinity of the equipment itself. By the time such emissions reach any sensitive receptor sites away from the project site, they are typically diluted to well below any level of air quality concern. An occasional "whiff" of diesel exhaust from passing equipment and trucks accessing the site from public roadways may result. Such brief exhaust odors are an adverse, but not significant, air quality impact.

Although no objectionable odors are anticipated to result from the operational phase of the proposed project, any unforeseen odors from minor food preparation at the residences are not considered a nuisance. Consequently, no significant impact would occur.

#### 3.4 BIOLOGICAL RESOURCES

##### 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 proposed project would not have any effect, either directly or indirectly, through habitat modifications, on any species identified as 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. Both project sites are developed with office uses. Since both sites are completely developed with urban uses, there are no candidate, sensitive, or special status species located on either site. No significant impacts would occur and no mitigation measures are necessary.



### 3. Environmental Analysis

---

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

**No Impact.** The proposed development would not have any effect, either directly or indirectly through habitat modification, 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 U.S. Fish and Wildlife Service. Both project sites are developed with office uses. Since both sites are currently completely developed with urban uses, there are no candidate, sensitive, or special status species located on either site. No significant impacts would occur and no mitigation measures are necessary.

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

**No Impact.** Both project sites are developed with urban uses. A visual site survey conducted by The Planning Center staff indicated that no low-lying wet areas or vegetation indicative of wetlands are located within the confines of either project site. No significant impacts would occur and no mitigation measures are necessary.

- 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?**

**No Impact.** Both project sites are developed with office uses. Both sites are located in urban areas and neither site functions as a wildlife dispersal or migration corridor. Project implementation would not impede the use of either site as a wildlife corridor or native wildlife nursery. No mitigation measures are necessary.

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

**No Impact.** Both project sites are developed with buildings and paved parking areas. Neither site contains any biological resources that are subject to any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No significant impacts would occur and no mitigation measures are necessary.

- 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.** Neither project site is located within a Habitat Conservation Plan, a Natural Community Conservation Plan, or any other approved local, regional, or state habitat conservation plan. No significant impacts would occur and no mitigation measures are necessary.

**3.5 CULTURAL RESOURCES**

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

**Less Than Significant Impact.** Section 10564.5 defines historic resources as resources listed or determined to be eligible for listing by the State Historical Resources Commission, a local register of historical resources, or the lead agency. Generally a resource is considered to be “historically significant,” if it meets one of the following criteria:

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

**16700 Norwalk Boulevard**

This site is currently developed with a number of structures associated with the ABCUSD’s administrative functions. None of the structures on the site are older than 50 years. In addition, none of the structures on the site are associated with events that made a significant contribution to history or are associated with the lives of persons important to our past.



**12880 Moore Street/12881 166<sup>th</sup> Street**

This site is currently developed with office and light industrial/warehouse uses. Both of the buildings on the site were constructed in 1984, making them 23 years old and not considered historic. No significant impacts would result from project implementation and no mitigation measures are necessary.

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

**Less Than Significant Impact With Mitigation Incorporated.**

**16700 Norwalk Boulevard**

The project site is fully developed and located within an urbanized area. Implementation of the proposed project is not anticipated to resulting significant impacts to archeological resources. However, in the event of an unanticipated discovery of archeological resources during grading and excavation of the site, a qualified archaeologist would be brought in to assess the find and develop a course of action to preserve the find, as indicated in the mitigation measure below.

**12880 Moore Street/12881 166<sup>th</sup> Street**

This portion of the project would consist of the refurbishment of the existing buildings on the site to allow for the relocation of the District office and central kitchen/warehouse. The project site is fully developed and

### *3. Environmental Analysis*

---

located within an urbanized area. No demolition would occur in conjunction with this portion of the project. Therefore, no impacts to archaeological resources would occur.

#### **Mitigation Measure**

3. The applicant shall have a qualified archaeologist on call to identify and evaluate any resources that may be uncovered as a result of the proposed development. If any cultural resources are discovered during ground-disturbing activities, work in the area shall be diverted until the discovery can be assessed for significance by a qualified archaeologist.

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

**Less Than Significant Impact With Mitigation Incorporated.**

#### **16700 Norwalk Boulevard**

The project site is fully developed and located within an urbanized area. Implementation of the proposed project is not anticipated to result in significant impacts to paleontological resources. However, in the event of an unanticipated discovery of paleontological resources during grading and excavation of the site, a qualified paleontologist would be brought in to assess the find and develop a course of action to preserve the find, as indicated in the mitigation measure below.

#### **12880 Moore Street/12881 166<sup>th</sup> Street**

This portion of the project would consist of the refurbishment of the existing buildings on the site to allow for the relocation of the District office and central kitchen/warehouse. The project site is fully developed and located within an urbanized area. No demolition would occur in conjunction with this portion of the project. Therefore, no impacts to paleontological resources would occur.

#### **Mitigation Measure**

4. The applicant shall have a qualified paleontologist on call to identify and evaluate any resources that may be uncovered as a result of the proposed development. If any cultural resources are discovered during ground-disturbing activities, work in the area shall be diverted until the discovery can be assessed for significance by a qualified paleontologist.

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

**Less Than Significant Impact.** There is no visible evidence that either site is a former burial site. However, in the event that unidentified human remains are uncovered during grading and excavation at either site, contractors would be required to comply with procedures and requirements set forth in the California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. The County Coroner and the Native American Heritage Commission (NAHC) would be notified, and in turn, would notify those persons believed to be most likely descended from the deceased for appropriate dispositions of the remains. No significant impacts would occur and no additional mitigation measures are required.

### 3.6 GEOLOGY AND SOILS

- a) **Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

**Less Than Significant Impact.** Fault rupture occurs when a building sits on top of an active fault that displaces in two separate directions during an earthquake. Fault rupture hazards can be characterized by a site's proximity to an active or potentially active fault and the designation of the site as being within an Alquist-Priolo Special Study Zone.

The City of Cerritos is located within a portion of southern California that is characterized by active faults, structural zones, and historically destructive earthquakes. The San Andreas Fault is located 50 miles to the northwest of the City of Cerritos. Northwest-trending faults lie to the northeast (Norwalk Fault and the Whittier-Elsinore Fault Zone) and southwest (Newport-Inglewood Fault Zone) of the City, but there are no identified fault zones within the City limits. Therefore, fault rupture impacts are not considered significant at either site. No mitigation measures are necessary.

ii) **Strong seismic ground shaking?**

**Less Than Significant Impact.** One of the predominant effects of an earthquake is ground shaking. Similar to the rest of southern California, the project site is subject to ground shaking and potential damage in the event of seismic activity. The most likely source of strong seismic ground shaking within the region would be a major earthquake (up to magnitude 8.25) on the San Andreas Fault. This fault is classified as active with a reoccurrence interval of 100 to 200 years. The probability of an earthquake with a magnitude of 7.5 or greater along the Mojave segment of the San Andreas Fault Zone is estimated to be 30 percent by the year 2018. Another likely site of seismic activity is the Newport-Inglewood Fault Zone, which lies approximately seven miles southwest of the City of Cerritos. This fault has seismic capability of over magnitude 7.0. The expected ground motion characteristics of future earthquakes in the region will depend on the distance to the epicenter and magnitude of the earthquake, and the soil profile of the site. The level of seismicity in Cerritos, both as to the upper bound ground motion event (UBE) potential and likely earthquake occurrences, is considered to be approximately the same as for the Los Angeles Basin. It is highly likely that Cerritos will experience a potentially destructive (modified Mercalli Intensity VII or greater) earthquake.

The City of Cerritos is situated entirely within the coastal plain portion of the Los Angeles Basin, characterized by thick, alluvial deposits. For that reason, ground shaking can be expected to be of similar nature, regardless of location within the City limits. Both components of the proposed project would be built to meet the Uniform Building Code (UBC) for Seismic Zone 4, as well as the standards of the Structural Engineers Association of California (SEAOC). Therefore, seismic impacts associated with the proposed project would be less than significant. No mitigation measures are required.

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

**Less Than Significant Impact.** Liquefaction is a phenomenon that occurs where there is a loss of strength or stiffness in the soils and can result in the settlement of buildings, ground failures, or other



### 3. Environmental Analysis

---

hazards. Liquefaction generally occurs as a “quicksand” type of ground failure caused by strong ground shaking. The primary factors influencing liquefaction potential include groundwater, soil type, relative density of the sandy soils, confining pressure, and the intensity and duration of ground shaking.

The California Department of Conservation is mandated by the Seismic Hazards Act of 1990 to identify and map the state’s most prominent earthquake hazards, including areas where earthquakes are most likely to cause shaking, liquefaction, or other ground failure. The California Department of Conservation, Division of Mines and Geology, had updated existing seismic hazard maps for portions of southern California, including the area covering the two project sites. The State Geologist released the official maps on March 25, 1999. Cities and counties, or other local permitting authorities, must regulate certain development projects within these seismic hazard zones. If a project site is located in one of these zones, development permits must be withheld until the geological and soil conditions of the project site are investigated and appropriate mitigation measures, if any, are incorporated into development plans.

Both project sites are located within the Whittier quadrangle and both sites are located within a liquefaction zone. Both components of the proposed project would be built to meet the UBC for Seismic Zone 4, as well as the standards of the SEA OCC. Therefore, seismic impacts associated with liquefaction would be less than significant. No mitigation measures are required.

#### iv) Landslides?

**No Impact.** Both project sites are flat and there are no hills in the vicinity of either project site that would pose a threat of landsliding. No significant impacts would occur and no mitigation measures are necessary.

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

**Less Than Significant Impact.** Erosion is a normal and inevitable geologic process whereby earthen materials are loosened, worn away, decomposed, or dissolved, and removed from one place and transported to another. Precipitation, running water, waves, and wind are all agents of erosion. Ordinarily, erosion proceeds so slowly as to be imperceptible, but when the natural equilibrium of the environment is changed, the rate of erosion can be greatly accelerated. This can create aesthetic as well as engineering problems. Accelerated erosion within an urban area can cause damage by undermining structures, blocking storm sewers, and depositing silt, sand, or mud in roads and tunnels. Eroded materials are eventually deposited into our coastal waters, where the carried silt remains suspended in the water for some time, constituting a pollutant and altering the normal balance of plant and animal life.

Due to the relatively flat topography and the developed nature of both sites, erosion impacts would be minimal. In addition, both components of the project would be subject to local and state codes and requirements for erosion control and grading. Both components of the project would be subject to National Pollutant Discharge Elimination System (NPDES) permitting regulations, including the development and implementation of a Stormwater Prevention Plan (SWPPP), which is further discussed in Section 3.8 of this report. With the adherence to these codes and regulations, no significant impacts would occur. No mitigation measures are necessary.

- 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?**

**Less Than Significant Impact.** Building improvements founded on collapsible soils may be damaged by sudden and often induced settlement when these soils are saturated after construction. Collapsible soils are typified by low values of dry unit weight and natural water content. The amount of settlement depends on the applied vertical stresses and the extent of wetting and available water. The design of all components of the project, including the senior housing, senior center, park, and relocation of the District offices, central kitchen facility, and warehouse, would be in conformance with the UBC, which would reduce project impacts to less than significant. No mitigation measures are necessary.

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

**Less Than Significant Impact.** Expansive soil, with respect to engineering properties, refers to those soils that, upon wetting and drying, will alternately expand and contract, causing problems for foundations of buildings and other structures. The design of all components of the project, including the senior housing, senior center, park, and relocation of the District offices, central kitchen facility, and warehouse, would be in conformance with the UBC, which would reduce project impacts to less than significant. No mitigation measures are necessary.

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

**No Impact.** Neither project site would create a demand for septic tanks. Both sites would connect to the municipal sewer system. No significant impacts would occur and no mitigation measures are necessary.



#### 3.7 HAZARDS AND HAZARDOUS MATERIALS

- 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 With Mitigation Incorporated.**

##### **Operation**

Routine operation of either component of the project would not involve the use of hazardous materials beyond normal cleaning solvents and landscaping products. Use of these substances would be minimal and would be subject to established Occupational Safety and Health Organization (OSHA) guidelines and to fire department approval.

##### **Construction**

###### **12880 Moore Street/12881 166<sup>th</sup> Street**

The two components of the project that would occur at this site would involve the reuse of existing buildings on the site. Both of the buildings on this site were constructed in 1984. Due to the date of construction, it is unlikely that asbestos or lead-based paint are present in building materials.

### *3. Environmental Analysis*

---

#### **16700 Norwalk Boulevard**

Project construction would include the demolition of most of the structures currently located on the site, most of which are office and warehouse buildings associated with the ABCUSD. The structures to be demolished on the site include:

- The main administrative (office) facility – 56,500 square feet
- Central kitchen – 16,500 square feet
- Warehouse – 24,500 square feet

#### *Asbestos*

Due to the age of the structures on the 16700 Norwalk Boulevard site, it is possible that they could contain some asbestos materials. Asbestos is the name given to a group of naturally occurring fibrous silicate minerals, typically those of the serpentine group. During the 20th century, some 30 million tons of asbestos were used in the United States, primarily in structural materials, insulation, and pipe manufacture.

Over the years, asbestos-containing products have been classified as both cementitious and dry-applied materials. Cementitious products are less likely to release fibers because they are bonded into nonasbestos materials. Dry-applied materials are not well bonded into other materials. As a result, they can have a higher potential for fiber release when disturbed. How many fibers a person must breathe to develop disease is uncertain. At very low exposure levels, the risk may be negligible or zero.

The Environmental Protection Agency (EPA) only requires asbestos removal to prevent significant public exposure to airborne fibers during demolition or renovation activities. At other times, the EPA believes that asbestos-removal projects, unless well designed and properly preformed, can actually increase health risk.

Specified work practice requirements limiting asbestos emissions from building demolition and renovation activities are set forth in SCAQMD Rule 1403 (Asbestos Emission From Demolition/Renovation Activities). This rule, in whole or in part, is applicable to owners and operators of any demolition or renovation activity, and the associated disturbance of asbestos-containing material.

#### *Lead-Based Paint*

Lead-based paints were used extensively in the years prior to 1978, with some of these paints containing as much as 40 percent lead. In most cases, lead-based paint that is in good condition is not a hazard. Peeling, chipping, chalking, or cracking is a hazard and requires immediate specialized attention, as removing lead-based paint improperly can increase the danger of lead exposure. Lead dust can form when the paint is dry scraped, dry sanded, or heated. Dust also forms when painted surfaces bump or rub together. Settled lead dust can reenter the air when people vacuum, sweep, or walk through it.

#### *Hazardous Effects*

Lead can enter the body by means of ingestion and inhalation, where it is stored in the bones and slowly released into the blood stream. Primary symptoms in adults are often related to painful and chronic stomach and intestinal disturbances (lead colic), peripheral nerve damage characterized by weakness in the arms and legs, and changes in brain function, such as decreased intellectual capacity, shortened attention span and short term memory loss.

Children are more sensitive than adults to the toxic effects of lead. Studies have suggested that children with high lead levels in their bodies suffer lower IQ scores, shorter attention spans, and impaired classroom

### 3. Environmental Analysis

---

behavior. In severe cases, lead encephalopathy (serious brain damage) may result, symptomized by dullness, irritability, headache, and muscle tremor. This may progress to convulsion, coma, and death.

#### Regulations

Under Section 302 of the Lead-Based Paint Poisoning Prevention Act (LBPPA), lead-based paint hazards equal to or greater than 0.5 percent by weight (5,000 ppm) or 1 MG/cm<sup>2</sup> must be abated. Lead-based paint that is intact and is not delaminated can be disposed of as construction debris as long as it is attached to its original substrate. However, appropriate work practices and worker protection must be utilized.

#### **Mitigation Measures**

5. Prior to project demolition, an asbestos survey shall be required. If demolition activities would disturb asbestos-containing materials, a qualified Asbestos Abatement Contractor shall remove the materials and clean the area in accordance with South Coast Air Quality Management District and California Occupational Safety and Health Administration requirements prior to starting demolition.
6. All construction contractors shall comply with South Coast Air Quality Management District (SCAQMD) regulations, including Rule 1403, which specifies actions to control asbestos emissions from demolition. Construction contractors shall provide documentation that they will comply with all applicable SCAQMD regulations and the mitigation measures.
7. Prior to project demolition, a lead-based paint survey shall be required. If lead is found in painted surfaces on the existing project site, a Lead Management Program should be prepared and implemented to avoid incidental and/or accidental disturbance of lead-based paint. The program should set forth operation and maintenance guidelines to minimize lead exposure. Prior to demolition or major construction, specifications should be properly modified to incorporate the removal of lead-based paint. According to the California Occupational Safety and Health Administration, any detectable level of lead can result in occupational exposure. In addition, if lead is found on the project site, the following measures shall occur during project construction:
  - Personal and random area air monitoring shall be conducted during lead removal and/or demolition.
  - Contractors shall keep debris piles wet after demolition to prevent lead particles from becoming airborne.
  - Contractors shall recommend that construction workers wear masks during demolition to avoid breathing lead particles.



#### **b) Create a significant hazard to the public or the environment through reasonable foreseeable upset and accident conditions involving the release of hazardous materials into the environment?**

**Less Than Significant Impact.** As indicated above, there is a potential for asbestos to be released during the demolition stage of project construction. However, Mitigation Measures 8 through 10 would reduce potential impacts to a level of less than significant.

To reduce impacts from potential spills of hazardous materials during construction, the project would be required to comply with the requirements set forth under the Statewide General Permit for Construction Activities, pursuant to Section 402 of the federal Clean Water Act. Per the requirements, Best Management Practices (BMPs) would be employed to control hazardous materials use and spills, as detailed within an

### *3. Environmental Analysis*

---

SWPPP prepared for the proposed project. None of the uses proposed would create significant hazards through the accidental release of hazardous materials. No mitigation measures are necessary.

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

**Less Than Significant Impact.** The affordable senior housing community is located within one quarter-mile of Tracy High School/ABC Adult School. The proposed project is a residential development and would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. The other component of the project, the relocation of the District Office, including the warehouse and kitchen facility, consists of the reuse of an existing office building and would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. No significant impacts would occur as a result of the project implementation. No mitigation measures are necessary.

**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?**

**Less Than Significant Impact.** According to searches done on GeoTracker and the USEPA's Superfund database, neither project site is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. No significant impacts would result from project implementation and no mitigation measures are necessary.

**e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles or a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** The Long Beach Municipal Airport is the closest airport to both of the project sites, located approximately four and five miles, respectively, from each site. Neither project site is located within the jurisdiction of any airport land use plan associated with the airport. No significant impacts would occur and no mitigation measures are necessary.

**f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?**

**No Impact.** There are no private airstrips within the vicinity of either project site. As a result, no impacts related to private airstrips would result from implementation of the proposed project. No mitigation measures are necessary.

**g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

**Less Than Significant Impact.** All components of the project would be built in a developed area and would not have a significant impact on areawide circulation patterns, emergency access, or evacuation routes.

#### **16700 Norwalk Boulevard**

Primary site access to the affordable senior housing community would be taken from Cuesta Drive, with secondary access available from 166<sup>th</sup> Street. The driveways and internal streets have been designed according to fire department standards for emergency access. In addition, the fire department would review

### 3. Environmental Analysis

---

project site plans for access and safety issues, and building permits would not be issued until the project met fire department standards for access. No significant impacts would result. No mitigation measures are necessary.

#### **12880 Moore Street/12881 166<sup>th</sup> Street**

The ABCUSD office, central kitchen, and warehouse would relocate from their current location at 16700 Norwalk Boulevard to a proposed new location at 12880 Moore Street/12881 166<sup>th</sup> Street. The buildings on the 12880 Moore Street/12881 166<sup>th</sup> Street site would remain on the site and be utilized by the District to house their current operations. The circulation patterns in the area would not change. As a result, emergency access in and around the project area would not be impacted. No significant impacts would result. No mitigation measures are necessary.

#### **h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?**

**No Impact.** Both project sites are located in developed areas and are not immediately adjacent to any wildland areas. Neither site would be subject to a risk of wildfires. No significant impacts would occur and no mitigation measures are necessary.

### **3.8 HYDROLOGY AND WATER QUALITY**

#### **Environmental Setting**

The project site is located within the San Gabriel River Watershed (Reach 6 – Lower Coastal Plain) and the receiving water is Coyote Creek. The San Gabriel River Watershed covers approximately 689 square miles and lies largely in the southeastern corner of Los Angeles County. The watershed drains into the San Gabriel River from the San Gabriel Mountains, flowing 58 miles south until its confluence with the Pacific Ocean. Major tributaries to the San Gabriel River include Walnut Creek, San Jose Creek, Coyote Creek, and numerous storm drains from the 19 cities that the San Gabriel River passes through. Channel flows pass through different sections in the San Gabriel River, diverting from the riverbed into four different spreading grounds, held behind several rubber dams for controlled flow and groundwater recharge, and controlled through 10 miles of concrete channel bottom from below Whittier Narrows Dam to past Coyote Creek.

Pollutants from dense clusters of residential and commercial land uses have impaired water quality in the middle and lower watershed. Tertiary-treated effluent from several sewage treatment plants enter the San Gabriel River in its middle reaches, while two power-generating stations discharge cooling water in to the river's estuary.

The project site is served by the Central Basin Municipal Water District (CBMWD). The service boundaries of the CBMWD include 24 cities covering 227 square miles. The CBMWD's service area provides water service to over two million people. The CBMWD relies on imported water from the Municipal Water District of Southern California, as well as groundwater from the Central Basin Groundwater Basin. (Central Basin Municipal Water District)



### *3. Environmental Analysis*

---

#### **Water Quality Regulations**

##### ***National Pollutant Discharge Elimination System (NPDES)***

The federal Clean Water Act (CWA) established the basic structure for regulating discharges of pollutants into the waters of the United States and gives the EPA the authority to implement pollution control programs.

In 1972, the federal CWA was amended to effectively prohibit the discharge of pollutants to waters of the United States from any point source, unless the discharge is in compliance with an NPDES permit. In 1987, the CWA was again amended to require the USEPA to establish regulations for permitting of stormwater discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. In 1990, the EPA published final regulations regarding stormwater discharges that require municipal separate storm sewer system (MS4) discharges to surface waters be regulated by a NPDES permit. In the State of California, the NPDES permit program is administered by the State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCB). NPDES permits typically incorporate specific limitations for point source discharges to ensure that discharges meet permit conditions and protect state-defined water quality standards. The Los Angeles RWQCB is the control board for the project area. In 1995, the Los Angeles RWQCB approved the Los Angeles River Basin Water Quality Control Plan (Basin Plan), which established water quality objectives for surface and ground waters in the Los Angeles Region.

##### ***Municipal Separate Storm Sewer System NPDES MS4 Permits***

In January 2002, the Los Angeles RWQCB issued the MS4 NPDES permit, which governs the public storm drain system discharges in Los Angeles County that come from the storm drain systems owned and operated by the Los Angeles County cities (including the City of Cerritos) and Los Angeles County (collectively known as co-permittees). This permit regulates stormwater and urban runoff discharges from new developments and natural storm drain systems in the City of Cerritos. Among other requirements, the NPDES permit specifies requirements for managing runoff water quality from new development and significant redevelopment projects, including specific sizing criteria for treatment BMPs.

##### ***Water Quality Management Plan Requirements***

To implement the requirements of the NPDES permit, the co-permittees, which include the City of Cerritos, have developed a 2003 Drainage Area Management Plan (DAMP). The DAMP provides a framework and a process for following the NPDES permit requirements and incorporates watershed protection/stormwater quality management principles into the co-permittees' general plan process, environmental review process, and development permit approval process. The New Development and Significant Redevelopment Program includes a Model Water Quality Management Plan (WQMP) that defines requirements and provides guidance for compliance with the NPDES permit requirements for project-specific planning, selection, and incorporation of BMPs in new development or significant redevelopment projects. Table 9 shows source-control and site-design stormwater BMPs as appropriate for projects, based on project category.

Local jurisdictions, including the City of Cerritos, have adopted Local Implementation Plans (LIP) based upon the county's DAMP, which includes the model WQMP. Using the local LIP as a guide, the City approves project-specific WQMPs as part of the development plan and entitlement approval process for discretionary projects, prior to issuing permits for ministerial projects.

### 3. Environmental Analysis

**Table 9**  
**Source-Control BMPs and Site Design Stormwater BMP Selection Matrix**

Project Category	Source Control BMPs <sup>1</sup>	Requirements Applicable to Individual Project Features (or Priority Project Categories) <sup>2</sup>									Site Design BMPs <sup>3</sup>
		Loading Dock Areas	Maintenance Bays	Vehicle Wash Areas	Outdoor Processing Areas	Equipment Wash Areas	Fueling Areas	Hillside Landscaping	Washwater Controls for Food Preparation Areas	Community Car Wash Racks	
Detached Residential Development	R							R			C
Attached Residential Development	R							R		R	C
Commercial Industrial Development > 100,000 sf	R	R	R	R	R	R	R	R	R		C
Automotive Repair Shop	R	R	R	R		R	R				C
Restaurants	R	R				R		R	R		C
Hillside Development > 5,000 sf in San Diego RWQCB	R							R			C
Hillside Development > 10,000 sf in Santa Ana RWQCB	R							R			C
Parking Lots	R							R			C
Streets, Highways & Freeways	R							R			C

R = Required in site design; C = Incorporate into site design as appropriate; sf = square feet

<sup>1</sup> Required for all projects regardless of priority.

<sup>2</sup> Priority project categories must apply specific stormwater BMP requirements, where applicable. Projects are subject to the requirements of all Priority Project categories that apply.

<sup>3</sup> Refer to Section 7.II-3.3.1 of the Model Water Quality Management Plan, September 2003.

Source: Los Angeles County Flood Control District, Los Angeles County, and Cities of Los Angeles County. Los Angeles County Stormwater Program.



#### Stormwater Pollution Prevention Plan Requirements

Pursuant to the CWA, in 2001 the SWRCB issued a statewide general NPDES permit for stormwater discharges from construction sites (NPDES No. CAS000002). Under this General Construction Activity permit, discharges of stormwater from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for stormwater discharges or be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and developing and implementing an SWPPP. Each applicant under the General Construction Activity Permit must ensure that an SWPPP is prepared prior to grading and is implemented during construction. The SWPPP must list BMPs the construction site will implement to protect stormwater runoff and must contain: a visual monitoring program, a chemical monitoring program for “nonvisible” pollutants to

### *3. Environmental Analysis*

---

be implemented if there is a failure of BMPs, and a monitoring plan if the site discharges directly to a water body listed on the 303(d) list of impaired waters.

#### **Existing Hydrologic Conditions**

##### ***On-Site Drainage***

###### *16700 Norwalk Boulevard*

This site is approximately 15.7 acres in size. Drainage on the site is currently directed towards the arterial streets – Norwalk Boulevard and 166<sup>th</sup> Street. Drainage on the site is directed as sheet flows toward the north and west and discharges into the MS4 operated by the City of Cerritos.

###### *12880 Moore Street/12881 166<sup>th</sup> Street*

This site is approximately 4.6 acres in size. Drainage on the site is currently directed towards the surrounding street system. Drainage on the site is directed as sheet flows toward the north and south and discharges into the MS4 operated by the City of Cerritos.

##### ***Flood Hazards***

The Federal Emergency Management Agency (FEMA) has prepared Flood Insurance Rate Maps (FIRMs) that show the extent of flood hazard areas and other features related to flood risk assessment. Both project sites are located in Zone C. The FEMA designation for Zone C corresponds to areas outside the one percent annual chance floodplain, areas of one percent annual chance sheet flow flooding where average depths are less than one foot, areas of one percent annual chance stream flooding where the contributing drainage area is less than one square mile, or areas protected from the one percent annual chance flood by levees. No Base Flood Elevations or depths are shown within this zone. Insurance purchase is not required in these zones.

#### **a) Violate any water quality standards or waste discharge requirements?**

**Less Than Significant Impact.** Stormwater runoff generated from within the project site would be managed in accordance with existing laws and regulations established under the NPDES of the CWA, Section 402; the State of California NPDES General Permit for Construction Activities adopted by the RWQCB under the Water Quality General Permit for Construction Activities; the Los Angeles County NPDES MS4 Permit, and the associated Los Angeles County 2003 DAMP.

Construction of the proposed project would potentially discharge sediment and pollutants to the nearest receiving waters and result in a potentially significant impact to water quality. Grading and excavation of the site would expose and disturb soils. The storage and use of hazardous materials on-site, including treated wood, paints, solvents, fuels, etc., would be potential sources of pollutants during construction. Runoff from construction activities would indirectly discharge into the San Gabriel River. Because the proposed project would disturb more than one acre of land, coverage under the NPDES General Construction Permit and preparation of an SWPPP would be required prior to construction. Implementation of the project-specific BMPs and compliance with the SWPPP for the duration of construction would ensure that construction-related water quality impacts would be reduced.

Long-term occupation of the residences could potentially impact water quality through the storage and use of hazardous material (paints, solvents), oil and grease discharge, and discharge of trash and debris to the municipal storm drain. Pollutants generated from residential developments that can impact stormwater

### 3. Environmental Analysis

---

include pathogens, nutrients, pesticides, sediments, trash and debris, oxygen-demanding substances, and oil and grease.

To comply with the Los Angeles County NPDES Permit, the City of Cerritos requires a site-specific WQMP that details postconstruction BMPs to be used for proposed projects that are consistent with the model WQMP developed by the Los Angeles County Flood Control District, the Cities of Los Angeles County, and Los Angeles County. Depending upon the project size and characteristics, BMPs may include site design BMPs (as appropriate) that minimize pollutant introduction or generation during site operation; applicable source-control BMPs that include homeowner education, activity restrictions, landscape management, and BMP maintenance; project-based treatment control BMPs, which are constructed/installed systems, including catch basin insets, roof runoff control, centrifugal filtrations systems, efficient irrigation, and fertilizer/pesticide management; and/or participation in an approved regional or watershed management program as defined in Section 7-II.3.3.3 of the Model WQMP in the affected watershed. Implementation of the WQMP would reduce potential, long-term water quality impacts to a less than significant level. No additional mitigation is required.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

**Less Than Significant Impact.** The proposed project would involve five main components on two separate project sites. The first set of components, associated with the redevelopment of the 16700 Norwalk Boulevard site, includes an affordable senior housing community, a senior center, and a park. The final two components include the relocation of the ABCUSD's offices, warehouse, and central kitchen facility to 12880 Moore Street/12881 166<sup>th</sup> Street. The redevelopment of the 16700 Norwalk Boulevard site would require the demolition and removal of existing uses and structures, while the relocation of the District administrative facilities to the 12880 Moore Street/12881 166<sup>th</sup> Street site would involve the reutilization of the two buildings currently on that site.



Both project sites are located within the Los Angeles-San Gabriel Hydrologic Unit, and specifically within the San Gabriel River Watershed. The Central Basin aquifer underlies both project sites within this portion of the San Gabriel River Watershed. The Central Basin is formed by the Whittier Fault Zone on the northeast and the Newport-Inglewood Fault on the southwest. Historically, the Central Basin fed numerous artesian flows throughout the lower watershed. The Water Replenishment District of Southern California manages the Central Basin groundwater basin and the groundwater in the project areas.

Both sites are currently developed with a variety of uses, therefore, the subsequent construction of the new affordable senior residential community, senior center, park, warehouse consolidation, and relocation of the district office facility would increase impermeable surfaces minimally, if at all. According to the San Gabriel River Master Plan, neither project site is located within a significant groundwater recharge area or a San Gabriel River spreading basin. Therefore, any groundwater recharge that is occurring in the project area would remain largely unaffected by the implementation of the project. No significant impacts would occur and no mitigation measures are necessary.

### 3. Environmental Analysis

---

- c) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in a substantial erosion or siltation on- or off-site.**

**Less Than Significant Impact.** The proposed project would involve five main components on two separate project sites. The first set of components, associated with the redevelopment of the 16700 Norwalk Boulevard site, includes an affordable senior housing community, a senior center, and a park. The final two components include the relocation of the ABCUSD's offices, warehouse, and central kitchen facility to 12880 Moore Street/12881 166<sup>th</sup> Street. The redevelopment of the 16700 Norwalk Boulevard site would require the demolition and removal of existing uses and structures, while the relocation of the District administrative facilities to the 12880 Moore Street/12881 166<sup>th</sup> Street site would involve the reutilization of the two buildings currently on that site.

#### **16700 Norwalk Boulevard**

Because this project site is currently developed, the amount of runoff generated as a result of the proposed project would not significantly increase as a result of project implementation. Erosion and siltation impacts potentially resulting from the project would, for the most part, occur during the site preparation and earthmoving phase for the project.

Erosion and siltation impacts for this component of the project would be reduced by the requirement for a NPDES permit and subsequent SWPPP. The SWPPP includes measures and performance standards related to reducing, managing, and controlling sediment and other pollutant discharges both during and after construction. No significant erosion or siltation impacts would occur as a result of the proposed project and no mitigation measures are necessary.

#### **12880 Moore Street/12881 166<sup>th</sup> Street**

This site is currently completely developed with two large buildings used for office and warehouse uses. Because this site is completely developed, the amount of runoff generated as a result of the construction of the three-story office building would not significantly increase. Erosion and siltation impacts would not occur on the site, as no demolition or grading would occur. The buildings on the site would remain intact and be used by the District for their current operations.

Erosion and siltation impacts for this component of the project would be reduced by the requirement for a NPDES permit and subsequent SWPPP. The SWPPP includes measures and performance standards related to reducing, managing, and controlling sediment and other pollutant discharges both during and after construction. No significant erosion or siltation impacts would occur as a result of the proposed project and no mitigation measures are necessary.

- d) **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

**Less Than Significant Impact.** The proposed project would involve five main components on two separate project sites. The first set of components, associated with the redevelopment of the 16700 Norwalk Boulevard site, includes an affordable senior housing community, a senior center, and a park. The final two components include the relocation of the ABCUSD's offices, warehouse, and central kitchen facility to 12880 Moore Street/12881 166<sup>th</sup> Street. The redevelopment of the 16700 Norwalk Boulevard site would require the demolition and removal of existing uses and structures, while the relocation of the District administrative

### 3. Environmental Analysis

---

facilities to the 12880 Moore Street/12881 166<sup>th</sup> Street site would involve the reutilization of the two buildings currently on that site.

Both project sites are located in developed, urban neighborhoods and would use the existing storm drain systems. Because all components of the project involve the reuse of existing developed land, the amount of additional runoff generated at either site is likely to be minimal. The runoff currently generated at both sites is currently adequately handled by the existing storm drain system. Thus, the proposed project would not significantly alter the existing drainage system in a manner that would result in flooding on- or off-site. No mitigation measures are necessary.

**e) Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

**Less Than Significant Impact.** The proposed project would involve five main components on two separate project sites. The first set of components, associated with the redevelopment of the 16700 Norwalk Boulevard site, includes an affordable senior housing community, a senior center, and a park. The final two components include the relocation of the ABCUSD's offices, warehouse, and central kitchen facility to 12880 Moore Street/12881 166<sup>th</sup> Street. The redevelopment of the 16700 Norwalk Boulevard site would require the demolition and removal of existing uses and structures, while the relocation of the District administrative facilities to the 12880 Moore Street/12881 166<sup>th</sup> Street site would involve the reutilization of the two buildings currently on that site. Both project sites currently drain adequately through the City's storm drain system. Since neither component of the project would substantially increase runoff, project implementation would not exceed the capacity of existing or planned stormwater drainage systems or provide a substantial source of polluted runoff. No mitigation measures are necessary.

**f) Otherwise substantially degrade water quality?**

**Less Than Significant Impact.** As addressed in Response 3.8a, any impacts to water quality would be reduced by compliance with the applicable water quality regulations, programs, and permits, and preparation and implementation of the SWPPP during construction and the WQMP during occupation and operation of the project. Therefore, the potential for the project to otherwise degrade water quality would be less than significant. No mitigation measures are necessary.

**g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

**No Impact.** Neither project site is located within a 100- or 500-year flood zone as indicated on the FEMA FIRM. According to the City of Cerritos General Plan, both sites are located within Zone C, meaning the area has a moderate or minimal hazard of flooding. No significant impacts would occur and no mitigation measures are necessary.

**h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

**No Impact.** Neither project site is located within a 100- or 500-year flood zone as indicated on the FEMA Online Hazard Awareness Maps. Therefore, construction of the proposed project would not place any structures within a 100-year flood zone. No significant impacts would occur and no mitigation measures are necessary.



### *3. Environmental Analysis*

---

**i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

**Less Than Significant Impact.** The proposed project is not located within a flood hazard zone or dam inundation area as identified by the ESRI FEMA database. The Whittier Narrows Dam and the Prado Dam are the closest dams to the City of Cerritos. The likelihood of failure of either of these dams is low. In the worst case, which would involve a breach to the Prado Dam, flood waters would reach the City in approximately eight hours and flood water depths would reach approximately seven feet. In addition, the City has a Multi-Hazard Functional Plan in place that outlines the City's response in the event of a dam failure. No mitigation measures are necessary.

**j) Inundation by seiche, tsunami, or mudflow?**

**Less Than Significant Impact.** A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. Although there are no large water tanks in the area that could impact the proposed project site, there are dams in the region that could create flooding impacts. Thirteen dams in the greater Los Angeles area moved or cracked during the 1994 Northridge earthquake. However, none were severely damaged. This low damage level was due in part to completion of the retrofitting of dams and reservoirs pursuant to the 1972 State Dam Safety Act. No mitigation measures are necessary.

Mudflows are landslide events in which a mass of saturated soil flows downhill as a very thick liquid. The proposed project site is flat and is not located along steep slopes or hillsides. The project site and surrounding areas are flat; therefore, the potential for mudflow and landslide events is considered low. Implementation of the project would not expose people or structures to inundation by mudflows. No mitigation measures are necessary.

Tsunamis are large ocean waves generated by major seismic events. The project site is located inland and would not be subject to tsunamis. Based on the location of the site, no impacts from tsunamis are anticipated. No mitigation measures are necessary.

#### **3.9 LAND USE AND PLANNING**

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

**No Impact.** The proposed project would involve five main components on two separate project sites. The first set of components, associated with the redevelopment of the 16700 Norwalk Boulevard site, include an affordable senior housing community, a senior center, and a park. The final two components include the relocation of the ABCUSD's offices, warehouse, and central kitchen facility to 12880 Moore Street/12881 166<sup>th</sup> Street. The redevelopment of the 16700 Norwalk Boulevard site would require the demolition and removal of existing uses and structures, while the relocation of the District administrative facilities to the 12880 Moore Street/12881 166<sup>th</sup> Street site would involve the reutilization of the two buildings currently on that site. None of the proposed components would divide an established community. No significant impacts would occur and no mitigation measures are necessary.

### 3. Environmental Analysis

---

- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?**

**Less Than Significant Impact.** Both proposed project sites are located within the City of Cerritos. The 16700 Norwalk Boulevard site is currently zoned Open Space (OS) and designated Educational by the City's General Plan. The 12880 Moore Street/12881 166<sup>th</sup> Street site is zoned Area Development Plan One (ADP-1) and designated Light Industrial by the City's General Plan.

To comply with the City of Cerritos' land use policies, the following entitlement actions are required.

#### **16700 Norwalk Boulevard**

- Three Public Referral Projects (PRP) and/or Precise Plan approval as required by the Cerritos Municipal Code
- Development Code Amendment (DCA) to establish a separate area development plan (ADP-14)
- Development Map Amendment (DMA) to change the zoning from OS to ADP-14
- General Plan Amendment (GPA) to change the land use from Education to ADP-14
- Parcel Map to subdivide the property into three parcels

#### **12880 Moore Street/12881 166<sup>th</sup> Street**

- Two Public Referral Projects (PRP) and/or Precise Plan approval as required by the Cerritos Municipal Code

Upon project approval, all components of the proposed project would be consistent with all local land use policies. No mitigation measures are necessary.

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?**

**No Impact.** Neither site is located within the jurisdiction of a habitat conservation plan or natural community conservation plan. The project area is mostly developed with a variety of uses. No significant impacts would occur and no mitigation measures are necessary.

#### **3.10 MINERAL RESOURCES**

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

**No Impact.** No known mineral resources have been identified on either project site that would be of value to the region or to the residents of the state. No impacts would occur and no mitigation measures are necessary.

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

**No Impact.** Neither project site is designated as a mineral recovery resource site, as indicated by the Department of Conservation Mineral Resource Maps, or contain any mineral resource recovery areas. No impacts would occur as a result of the proposed project. No mitigation measures are necessary.



## 3. Environmental Analysis

---

### 3.11 NOISE

#### Background Discussion

Sound is a pressure wave transmitted through the air. It is described in terms of loudness or amplitude (measured in decibels), frequency or pitch (measured in Hertz [Hz] or cycles per second) and duration (measured in seconds or minutes). The standard unit of measurement of the loudness of sound is the decibel (dB). Typical human hearing can detect changes in sound levels of approximately 3 dBA or greater under normal conditions. Changes of 1 to 3 dBA are detectable under quiet, controlled conditions and changes of less than 1 dBA are usually indiscernible. A change of 5 dBA or greater is typically noticeable to most people in an exterior environment whereas a change of 10 dBA is perceived as a doubling (or halving) of the noise.

The human ear is not equally sensitive to all frequencies. Sound waves below 16 Hz are not heard at all and are felt more as a vibration. Similarly, while people with extremely sensitive hearing can hear sounds as high as 20,000 Hz, most people cannot hear above 15,000 Hz. In all cases, hearing acuity falls off rapidly above about 10,000 Hz and below about 200 Hz. Since the human ear is not equally sensitive to sound at all frequencies, a special frequency-dependent rating scale is usually used to relate noise to human sensitivity. The A-weighted decibel scale (dBA) performs this compensation by discriminating against frequencies in a manner approximating the sensitivity of the human ear.

Noise is defined as unwanted sound, and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses and annoyance. Based on these known adverse effects of noise, the federal government, the State of California and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

Noise may be generated from a point source, such as a piece of construction equipment, or from a line source, such as a road containing moving vehicles. Because noise spreads in an ever-widening pattern, the given amount of noise striking an object, such as an eardrum, is reduced with distance from the source. This is known as "spreading loss." The typical spreading loss for point source noise is 6 dBA per doubling of the distance from the noise source.

A line source of noise, such as vehicles proceeding down a roadway, would also be reduced with distance, but the rate of reduction is a function of both distance and the type of terrain over which the noise passes. Hard sites, such as developed areas with paving, reduce noise at a rate of 3 dBA per doubling of the distance while soft sites, such as undeveloped areas, open space and vegetated areas reduce noise at a rate of 4.5 dBA per doubling of the distance. These represent the extremes and most areas would actually contain a combination of hard and soft elements with the noise reduction placed somewhere between these two factors. The only way to actually determine the absolute amount of attenuation that an area provides is through field measurement under operating conditions with subsequent noise level measurements conducted at varying distances from a constant noise source.

Objects that block the line-of-sight attenuate the noise source if the receptor is located within the "shadow" of the blockage (such as behind a sound wall). If a receptor is located behind the wall, but has a view of the source, the wall would do little to reduce the noise. Additionally, a receptor located on the same side of the wall as the noise source may experience an increase in the perceived noise level, as the wall would reflect noise back to the receptor compounding the noise.

### 3. Environmental Analysis

---

Several rating scales (or noise metrics) exist to analyze adverse effects of noise, including traffic-generated noise, on a community. These scales include the equivalent noise level ( $L_{eq}$ ), the community noise equivalent level (CNEL) and the day/night noise level ( $L_{dn}$ ).  $L_{eq}$  is a measurement of the sound energy level averaged over a specified time period (usually one hour).  $L_{eq}$  represents the amount of variable sound energy received by a receptor over a time interval in a single numerical value. For example, a one-hour  $L_{eq}$  noise level measurement represents the average amount of acoustic energy that occurred in that hour.

Unlike the  $L_{eq}$  metric, the CNEL noise metric is based on 24 hours of measurement. CNEL also differs from  $L_{eq}$  in that it applies a time-weighted factor designed to emphasize noise events that occur during the evening and nighttime hours (when quiet time and sleep disturbance is of particular concern). Noise occurring during the daytime period (7:00 AM to 7:00 PM) receives no penalty. Noise produced during the evening time period (7:00 to 10:00 PM) is penalized by 5 dBA, while nighttime (10:00 PM to 7:00 AM) noise is penalized by 10 dBA. The  $L_{dn}$  noise metric is similar to the CNEL metric except that the period from 7:00 to 10:00 PM receives no penalty. Both the CNEL and  $L_{dn}$  metrics yield approximately the same 24-hour value (within 1 dBA) with the CNEL being the more restrictive (i.e., higher) of the two.

#### **Psychological and Physiological Effects of Noise**

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system. Prolonged noise exposure in excess of 75 dBA increases body tensions, thereby affecting blood pressure and functions of the heart and nervous system. Extended periods of noise exposure above 90 dBA result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear, and this level is called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium. The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.



#### **Regulatory Environment**

##### ***State of California Standards***

Table 10 shows the State of California Interior and Exterior Noise Standard required by the State of California for all new construction under the California Building Code (Title 24, Part 2, California Code of Regulations). These noise standards are incorporated as part of the California Building Code and California Noise Insulation Standards (24 and 25 CCR) and are the noise standards required for new construction in California. As shown in this table, interior noise levels for new residential uses are required to be constructed to meet the 45 dBA CNEL interior noise standard.

### 3. Environmental Analysis

**Table 10  
State of California Interior and Exterior Noise Standards**

<b>Categories</b>	<b>Land Use Uses</b>	<b>CNEL (dBA)</b>	
		<b>Interior<sup>1</sup></b>	<b>Exterior<sup>2</sup></b>
Residential	Single- and multifamily, duplex	45 <sup>3</sup>	65
	Mobile homes	—	65 <sup>4</sup>
	Hotel, motel, transient housing	45	—
Commercial	Commercial retail, bank, restaurant	55	—
	Office building, research and development, professional offices	50	—
	Amphitheater, concert hall, auditorium, movie theater	45	—
	Gymnasium (Multipurpose)	50	—
	Sports club	55	—
	Manufacturing, warehousing, wholesale, utilities	65	—
Institutional/Public	Hospital, school classrooms, playgrounds	45	65
	Church, library	—	—
Open Space	Parks	—	65

<sup>1</sup> Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors

<sup>2</sup> Outdoor environment limited to: private yard of single-family dwellings, multifamily private patios or balconies accessed from within the dwelling (balconies 6 feet deep or less are exempt), mobile home parks, park picnic areas, school playgrounds, hospital patios

<sup>3</sup> Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided as per Chapter 12, Section 1205 of the Uniform Building Code.

<sup>4</sup> Exterior noise levels should be such that interior noise levels will not exceed 45 dBA CNEL.

Source: Title 24, Part 2, and Title 25 California Code of Regulations.

#### **City of Cerritos Noise Standards**

##### *City of Cerritos General Plan Noise Element*

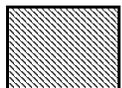
Cities and counties in California are preempted by federal law from controlling noise generated from most mobile sources, including noise generated by vehicles and trucks on the roadway, trains on the railroad, and airplanes. As such, Table 11 is used by the state as a tool to gauge the compatibility of new development in the noise environment generated by mobile sources and provides urban planners with a tool to gauge the compatibility of land uses relative to existing and future noise levels. This table identifies normally acceptable, conditionally acceptable, and clearly unacceptable noise levels for various land uses.

### 3. Environmental Analysis

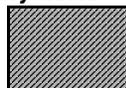
**Table 11  
Community Noise and Land Use Compatibility**

Land Uses	CNEL (dBA)					
	55	60	65	70	75	80
Residential: Low Density	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential: Multiple Family	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Transient Lodging- Motel, Hotels	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Sports Arenas, Outdoor Spectator Sports	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stable, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable

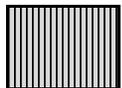
**Explanatory Notes**



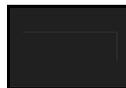
**Normally Acceptable:**  
With no special noise reduction requirements assuming standard construction.



**Normally Unacceptable:**  
New construction is discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.



**Conditionally Acceptable:**  
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design.



**Clearly Unacceptable:**  
New construction or development should generally not be undertaken.

Source: City of Cerritos, City of Cerritos Noise Element, January 2004.



### 3. Environmental Analysis

---

The City of Cerritos General Plan Noise Element discusses the effects of noise exposure on the population and sets goals aimed at protecting its residents from undue noise. The General Plan Noise Element contains noise thresholds for developments located adjacent to mobile or transportation noise sources and thresholds for stationary noise sources. The City applies the state's Community Noise and Land Use Compatibility standards, summarized in Table 12, for the purpose of assessing the compatibility of new development with existing noise sources.

#### *City of Cerritos Stationary Noise Standards*

The City applies the Noise Control Ordinance standards, summarized in Table 13, to nontransportation stationary noise sources. These standards do not gauge the compatibility of developments in the noise environment, but provide restrictions on the amount and duration of noise generated at a property, as measured at the property line of the noise receptor. These noise standards do not apply to noise generated by vehicle traffic, because the state, counties, and cities are preempted from controlling vehicle noise under federal law. The City's Noise Ordinance is designed to protect people from objectionable nontransportation noise sources such as music, construction activity, machinery, pumps, and heating, ventilation, and air conditioning (HVAC) systems. According to Section 22.80.480 of the City's Municipal Code, stationary (nontransportation) noise generated on a property is prohibited from (1) exceeding the maximum sound levels as shown in Table 12 at the property line, or (2) exceeding the ambient noise environment by 5 dBA at the property line, whichever is greater.

<b>Land Use</b>	<b><math>L_{50}</math></b>	<b><math>L_{25}</math></b>	<b><math>L_8</math></b>	<b><math>L_2</math></b>
Residential	50	55	60	65
Commercial	60	65	70	75
Industrial	70	75	80	85

Source: City of Cerritos Municipal Code. Chapter 22.80.480 Noise.

#### *City of Cerritos Construction Noise Standards*

The City realizes that the control of construction noise is difficult and therefore provides exemptions for this type of noise from the stationary noise limitations of the City of Cerritos Municipal Code. According to the Cerritos Municipal Code, Section 22.80.480, construction activities are prohibited between 7:00 PM and 7:00 AM and construction activities are prohibited on Sundays and federal holidays.

#### **Federal Transit Administration Vibration Criteria**

The City of Cerritos has not yet adopted vibration criteria. The United States Department of Transportation Federal Transit Administration (FTA) provides criteria for acceptable levels of groundborne vibration for various types of special buildings that are sensitive to vibration. For purposes of identifying potential project-related vibration impacts, the FTA criteria will be used. The human reaction to various levels of vibration is highly subjective, and varies from person to person. The upper end of the range shown for the threshold of perception, or roughly 65 VdB, may be considered annoying by some people. Vibration below 65 VdB may also cause secondary audible effects, such as a slight rattling of doors, suspended ceilings/fixtures, windows, and dishes, any of which may result in additional annoyance. Table 13 shows the FTA groundborne vibration and noise impact criteria.

### 3. Environmental Analysis

**Table 13  
Groundborne Vibration and Noise Impact Criteria**

<b>Land Use Category</b>	<b>Groundborne Vibration Impact Levels (VdB re 1 microinch/sec)</b>			<b>Groundborne Noise Impact Levels (dB re 20 micropascals)<sup>5</sup></b>		
	<b>Frequent Events<sup>1</sup></b>	<b>Occasional Events<sup>2</sup></b>	<b>Infrequent Events<sup>3</sup></b>	<b>Frequent Events<sup>1</sup></b>	<b>Occasional Events<sup>2</sup></b>	<b>Infrequent Events<sup>3</sup></b>
<b>Category 1:</b> Buildings where low ambient vibration is essential for interior operations.	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	65 VdB <sup>4</sup>	NA <sup>4</sup>	NA <sup>4</sup>	NA <sup>4</sup>
<b>Category 2:</b> Residences and buildings where people normally sleep.	72 VdB	75 VdB	80 VdB	35 dBA	38 dBA	43 dBA
<b>Category 3:</b> Institutional land uses with primarily daytime use.	75 VdB	78 VdB	83 VdB	40 dBA	43 dBA	48 dBA

<sup>1</sup> "Frequent Events" is defined as more than 70 vibration events of the same source per day.

<sup>2</sup> "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

<sup>3</sup> "Infrequent Events" is defined as fewer than 30 vibration events per day of the same kind per day.

<sup>4</sup> This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.

<sup>5</sup> Vibration-sensitive equipment is not sensitive to groundborne noise.

Source: United States Department of Transportation Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment*, June 2006.



#### Existing Noise Environment

The project involves construction and operation on two separate project sites, both located in urbanized areas of the City of Cerritos. The primary noise source at the 15.7-acre project site is local roadway traffic on 166<sup>th</sup> Street and Norwalk Boulevard and more distant traffic on SR-91. The primary noise source at the 4.6-acre project site is local traffic at Moore Street and 166<sup>th</sup> Street.

#### Noise Modeling of Local Roadways

Noise from motor vehicles is generated by engine vibrations, the interaction between tires and the road, and the exhaust system. Reducing the average motor vehicle speed reduces the noise exposure of receptors adjacent to the road. Each reduction of five miles per hour reduces noise by about 1.3 dBA.

To assess the potential for mobile-source noise impacts, it is necessary to determine the noise currently generated by vehicles traveling through the project area. Average daily traffic (ADT) volumes were based on the existing daily traffic volumes provided by Kunzman Associates (revised August 2007). Noise levels for existing conditions along analyzed roadways are presented in Table 14.

### 3. Environmental Analysis

**Table 14**  
**Existing Traffic Noise Levels (dBA CNEL)**

Segment	Existing Year 2007				
	ADT Volumes	CNEL (dBA @ 50 Feet from centerline)	Distance to CNEL Contour (Feet from Centerline)		
			60 (dBA CNEL)	65 (dBA CNEL)	70 (dBA CNEL)
<b>Alondra Boulevard</b>					
w/o Norwalk Boulevard	18,900	74.0	431	200	93
e/o Norwalk Boulevard	20,500	74.4	455	211	98
e/o Bloomfield Avenue	15,600	73.2	379	176	82
e/o Shoemaker Avenue	14,600	72.9	363	168	78
<b>166<sup>th</sup> Street</b>					
w/o Norwalk Boulevard	11,500	70.0	231	107	50
e/o Norwalk Boulevard	11,000	69.8	224	104	48
e/o Bloomfield Avenue	14,200	71.9	309	143	67
e/o Shoemaker Avenue	12,200	71.2	309	143	67
<b>Cuesta Drive</b>					
e/o Norwalk Boulevard	7,500	70.0	233	108	50
<b>Lucas Street</b>					
e/o Bloomfield Avenue	2,000	62.4	72	33	15
<b>Palm Street</b>					
e/o Norwalk Boulevard	4,300	67.6	161	75	35
<b>Artesia Boulevard</b>					
w/o Norwalk Boulevard	21,900	73.7	412	191	89
e/o Norwalk Boulevard	21,000	73.6	401	186	86
e/o Bloomfield Avenue	23,000	74.0	426	198	92
w/o Shoemaker Avenue	25,100	74.3	452	210	97
e/o Shoemaker Avenue	23,300	74.0	430	199	93
<b>Park Plaza Drive</b>					
w/o SR-91 Ramps	9,900	70.3	243	113	52
e/o SR-91 Ramps	11,600	71.0	270	125	58
<b>Norwalk Boulevard</b>					
n/o Alondra Boulevard	14,600	72.9	363	168	78
s/o Alondra Boulevard	16,900	73.5	400	186	86
s/o 166 <sup>th</sup> Street	19,500	74.2	440	204	95
s/o Cuesta Drive	22,200	74.7	480	223	103
s/o Palm Street	19,400	74.1	438	203	94
s/o Artesia Boulevard	18,900	74.0	431	200	93
<b>Bloomfield Avenue</b>					
n/o Alondra Boulevard	13,100	71.5	293	136	63
s/o Alondra Boulevard	18,000	72.9	362	168	78
s/o 166 <sup>th</sup> Street	20,400	73.8	419	194	90
n/o Artesia Boulevard	22,300	73.8	417	194	90
s/o Artesia Boulevard	21,800	73.7	411	191	89
<b>Shoemaker Avenue</b>					
n/o Alondra Boulevard	7,400	70.0	231	107	50
s/o Alondra Boulevard	13,300	72.5	341	157	73
s/o 166 <sup>th</sup> Street	15,800	73.3	382	177	82
s/o Artesia Boulevard	16,500	73.4	393	183	85
n/o Park Plaza Drive	15,100	73.1	371	172	80
s/o Park Plaza Drive	8,600	70.6	255	118	55

e/o: east of; w/o: west of; n/o: north of; s/o: south of

Note: Traffic noise levels within 50 feet of the roadway centerline require site-specific analysis.

Source: Federal Hwy. Administration, Traffic Noise Prediction Model. The Planning Center. Based on traffic volumes obtained from the Traffic Analysis (Kunzman Assoc.)

## 3. Environmental Analysis

---

### **Sensitive Noise Receptors**

Certain land uses are particularly sensitive to noise and vibration. Noise- and vibration-sensitive uses include residential land uses to the north and east of the 15.7-acre site, Tracy High School and ABC Adult School to the south of Cuesta Drive of the 15.7-acre site, and the residential land uses to the south of the 4.6-acre ABCUSD relocation site.

### **Methodology**

The analysis of impacts related to noise considers the impacts of project construction and operations noise as defined by the City of Cerritos, State of California, and/or the Federal Transit Administration. Based on the City of Cerritos Municipal Code (stationary noise) and General Plan (Land Use Noise Compatibility), the State of California (California Building Code, Title 24), and the Federal Transit Administration (vibration criteria) the proposed project would have a significant adverse noise impact if the project results in any of the following:

### **Noise**

- Project-related construction activities occurring outside of the hours specified (7:00 AM and 7:00 PM) under the Cerritos Municipal Code Section 22.80.480.
- Project-related operations causing an audible change in noise levels. A minimum 3 dB change in noise levels is necessary for human hearing to discern a change in noise levels. Project-related on-site activities increasing the CNEL at any noise-sensitive receptor by an audible amount of 3 dBA or more when the CNEL is 65 dBA CNEL or greater in the vicinity of noise-sensitive land uses.

### **Groundborne Vibration**

Project-related construction activities that would exceed the vibration criteria of 80 VdB (for infrequent events) for vibration-induced annoyance to residents in nearby structure.

### **a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?**

**Less Than Significant Impact.** The proposed project involves the construction and operation of a 247-unit affordable senior residential community, a senior center, and a park on the 15.7-acre site and remodeling of the existing warehouse and office structures at a 4.6-acre site in the City of Cerritos for the new ABCUSD offices and kitchen/warehouse facility. Because remodeling of the existing tilt-up concrete structures at the 4.6-acre site would not entail demolition or new construction, minimal construction equipment and associated air pollutant emissions are anticipated from this phase of the project. Operational noise impacts would be limited to activities at the project site and noise generated along roadways by project-related vehicle trips.

### **Off-Site Mobile Source Impacts**

The proposed project would generate 1,744 new trips per day at the 15.7-acre project site with 129 new trips occurring during the morning peak hour and 149 new trips during the evening peak hour. The existing ABCUSD offices at the 15.7-acre project site currently generate 609 trips, with 80 trips in the morning peak hour and 89 trips in the evening peak hour. As a result, the 15.7-acre site would result in a net increase of 1,135 trips, with 49 additional trips in the morning peak hour and 60 additional trips in the evening peak hour. The 609 average daily trips associated with the existing ABCUSD offices would be redistributed on the



### *3. Environmental Analysis*

---

roadway system to the new 4.6-acre site located the northeast of the 15.7-acre project site. The existing land uses at the 4.6-acre site currently generate 505 average daily trips, with 71 trips in the morning peak hour and 68 trips in the evening peak hour. As a result, the relocated ABCUSD offices would result in a net increase in 104 average daily trips, with 9 additional trips in the morning peak hour and 21 additional trips in the evening peak hour. Traffic noise modeling was compiled for both opening year (2011) No Project and With Project cumulative conditions, as shown in Table 15.

As shown in Table 15, the difference in traffic noise between the No Project and With Project conditions represents the increase in noise attributable to project-related traffic at project opening year. Project-related noise impacts may occur if there are substantial noise increases (+3 dB) in comparison to Without Project conditions when CNEL is 65 dBA or greater in the vicinity of noise-sensitive land uses. The increase in project-related traffic is calculated to increase noise levels by a maximum of 0.2 dBA CNEL along Bloomfield Avenue, north of Artesia Boulevard. Consequently, project-related traffic noise increases would be less than significant.

#### **Off-Site Stationary Source Noise Impacts**

Residential development under the proposed project would lead to the introduction of new stationary noise at the project site, including heating, ventilation, and air conditioning (HVAC) units from residential units in addition to stationary source noise from landscaping activities. However, the existing ABC School District facilities, including the existing kitchen, warehouse, and administration buildings currently generate these types of noise sources. Likewise, new office and kitchen/warehouse uses at the 4.6-acre site would utilize the existing buildings on-site and therefore no significant changes in the on-site noise environment would occur on-site. Furthermore, HVAC units and other equipment are acoustically engineered with mufflers and barriers. The City's noise ordinance would also prohibit adverse noise levels from these sources to occur. Impacts from on-site noise generating sources would not be substantial and no significant impacts would occur.

### 3. Environmental Analysis

**Table 15**  
**Opening Year (2011) Without Project vs. With Project Traffic Noise Modeling**

Location	Opening Year w/o Project ADT		Opening Year w/Project ADT		Increase in CNEL (dBA) Due to Project
	ADT	CNEL@ 50 Feet from Centerline	ADT	CNEL@ 50 Feet from Centerline	
<b>Alondra Boulevard</b>					
w/o Norwalk Boulevard	19,100	74.1	19,200	74.1	0
e/o Norwalk Boulevard	20,700	74.4	20,800	74.4	0
e/o Bloomfield Avenue	15,800	73.3	15,900	73.3	0
e/o Shoemaker Avenue	14,800	73.0	14,900	73.3	0
<b>166<sup>th</sup> Street</b>					
w/o Norwalk Boulevard	11,700	70.0	11,800	70.1	0
e/o Norwalk Boulevard	11,200	69.8	11,400	69.9	0.1
e/o Bloomfield Avenue	14,400	71.9	14,500	72.0	0
e/o Shoemaker Avenue	12,400	71.3	12,500	71.3	0
<b>Cuesta Drive</b>					
e/o Norwalk Boulevard	7,600	70.1	8,500	70.6	0.5
<b>Lucas Street</b>					
e/o Bloomfield Avenue	2,000	62.4	2,000	62.4	0
<b>Palm Street</b>					
e/o Norwalk Boulevard	4,400	67.7	4,400	67.7	0
<b>Artesia Boulevard</b>					
w/o Norwalk Boulevard	22,100	73.8	22,100	73.8	0
e/o Norwalk Boulevard	21,200	73.6	21,300	73.6	0
e/o Bloomfield Avenue	23,200	74.0	23,300	74.0	0
w/o Shoemaker Avenue	25,400	74.4	25,500	74.4	0
e/o Shoemaker Avenue	23,500	74.1	23,600	74.1	0
<b>Park Plaza Drive</b>					
w/o SR-91 Ramps	10,100	80.4	10,100	70.4	0
e/o SR-91 Ramps	11,800	71.1	11,800	71.1	0
<b>Norwalk Boulevard</b>					
n/o Alondra Boulevard	14,800	73.0	14,900	73.0	0.1
s/o Alondra Boulevard	17,100	73.6	17,300	73.6	0.1
s/o 166 <sup>th</sup> Street	19,700	74.2	20,200	74.3	0.1
s/o Cuesta Drive	22,400	74.8	23,000	74.9	0
s/o Palm Street	19,600	74.2	19,800	74.2	0
s/o Artesia Boulevard	19,100	74.1	19,200	74.1	0
<b>Bloomfield Avenue</b>					
n/o Alondra Boulevard	13,300	71.6	13,300	71.6	0
s/o Alondra Boulevard	18,200	72.9	18,200	72.9	0
s/o 166 <sup>th</sup> Street	22,600	73.9	22,700	73.9	0
n/o Artesia Boulevard	22,500	73.9	23,600	74.1	0.2
s/o Artesia Boulevard	22,000	73.9	22,100	73.8	0
<b>Shoemaker Avenue</b>					
n/o Alondra Boulevard	7,500	70.0	7,500	70.0	0
s/o Alondra Boulevard	13,500	72.6	13,500	72.6	0
s/o 166 <sup>th</sup> Street	16,000	73.3	16,000	73.3	0
s/o Artesia Boulevard	16,700	73.5	16,700	73.5	0
n/o Park Plaza Drive	15,300	73.1	15,300	73.1	0
s/o Park Plaza Drive	8,800	70.7	8,800	70.7	0

e/o: east of; w/o: west of; n/o: north of; s/o: south of

Note: Traffic noise levels within 50 feet of the roadway centerline require site-specific analysis.

Source: Federal Highway Administration, Traffic Noise Model, The Planning Center, based on traffic volumes and speed limits obtained in the Traffic Impact Analysis by Kunzman Associates, revised August 2007.



### 3. Environmental Analysis

#### Park Noise

The proposed project includes a park in the eastern portion of the 15.7-acre project site, north of Cuesta Drive. The center of the park's recreational open space would be located approximately 130 feet west of the existing residential area while the center of the proposed tot lot would be located approximately 230 feet to the west of the existing residences. Noise generated from use of park may be construed as from a stationary noise source. The park may or may not include lighting for nighttime use. Approval from the neighboring residential community would be required prior to implementation of any lighting plan. Typical park hours for similar park facilities are 7:00 AM to 10:00 PM.

Noise modeling of recreational athletic activities was conducted to determine future noise levels at noise-sensitive receptors within the vicinity of the park. Noise modeling is based on recreational athletic activities monitored at Mile Square Park in the City of Fountain Valley and assumes spectator and player noise for athletic events. Noise levels from athletic activity are based on the distance from each facility to the closest residential property line. Table 16 shows the estimated noise levels from use of the park facilities at the existing residences to the east and assume maximum utilization of the park facilities.

**Table 16**  
**Average Noise Levels from Activities at the Park**

Activity	Noise Levels at Residences to the East (dBA)				
	$L_{eq}$	$L_{50}$	$L_{25}$	$L_8$	$L_2$
Recreational Open Space	49	43	45	50	60
Tot Lot Playground Equipment	36	34	36	39	42
<b>All Recreational Open Space Noise (<math>L_{eq}</math>)</b>	<b>49</b>	<b>44</b>	<b>46</b>	<b>50</b>	<b>61</b>
Cerritos Stationary Noise Standards	NA	50	55	60	65
Exceeds Noise Standards	No	No	No	No	No

Based on field measurements of athletic activities and projected for 100 people utilizing the park facilities.

Because recreational facilities are dispersed over the approximately 4-acre park site, noise from recreational athletic activities is substantially attenuated by the time it reaches the residential land uses. Maximum combined noise levels from concurrent use of the recreational open space, as measured at the property line of any one residential property, are 49 dBA  $L_{eq}$ . As shown in this table, no exceedance of the City's stationary noise would occur from average noise levels at the park facilities. Based on combined noise levels from concurrent use of the recreational open space, noise from recreational athletic activities would not substantially elevate noise levels at the existing residential areas and no significant impact would occur. Other noise-sensitive uses are located further away from the project site and would experience lower noise levels from the proposed park.

#### Noise Compatibility

Noise may be a significant impact if the project constructs a noise-sensitive land use in an area that is incompatible due to excessive noise. The City of Cerritos has adopted land use compatibility criteria for the siting of new noise-sensitive land uses within the City (see Table 10). Per the City of Cerritos General Plan, noise-impacted projects are defined as multifamily residential projects that exceed the City's normally acceptable noise compatibility criteria for noise-sensitive exterior areas of 65 dBA CNEL; or for parks, noise levels that exceed the City's normally acceptable noise compatibility criteria of 70 dBA CNEL. The City requires exterior noise levels to be mitigated to 65 dBA CNEL with the exception of balconies that are less

### 3. Environmental Analysis

than six feet wide (per the California Building Code). While the proposed park would be required to reduce exterior noise levels at residential areas to achieve an exterior noise environment of 65 dBA CNEL, residential units of the senior housing project would not conflict with the City’s policies regarding noise compatibility for exterior areas as no private balconies larger than six-feet in depth have been incorporated into the project design. However, the interior areas would need to achieve compliance with the state’s noise insulation standards. Noise-impacted projects are required by the City to include upgraded noise insulation features (i.e., windows, doors, attic baffling) that achieve an exterior-to-interior noise levels which meet 45 dBA CNEL.

The majority of the future ambient noise at the project area would be generated by local roadway traffic. Future noise levels in the vicinity of proposed residential land and park site are shown in Table 17. As shown in Table 14, with windows closed, standard construction would ensure interior noise levels would comply with the state’s Noise Insulation standards of 45 dBA CNEL. Furthermore, noise levels at the park would be within the normally acceptable noise compatibility criteria for outdoor recreational uses and no significant impact would occur.

**Table 17**  
**Noise Levels at the Park and Senior Housing Units**

<i>Location</i>	<i>Distance from Centerline to Receptor Property Line</i>	<i>Calculated Exterior dBA CNEL</i>	<i>Calculated Interior dBA CNEL with Windows Closed<sup>1</sup></i>
Closest Residential Units Facing 166 <sup>th</sup> Street	68 feet	68	44
Closest Residential Units Facing Norwalk Boulevard	165 feet	67	43
Park on Cuesta Drive (Behind Kitchen and Senior Center)	244 feet	60	NA

<sup>1</sup> Interior noise reduction from a windows-open and windows-closed condition based on: Society of Automotive Engineers, Inc., House Noise - Reduction Measurements for Use in Studies of Aircraft Flyover Noise, AIR 1081, October 1971.

Source: Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model. Based on traffic volumes and speed limits obtained in the Traffic Impact Analysis prepared by Kunzman Associates, May 2007.



**b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?**

**Less Than Significant Impact.** Land uses which typically generate vibration include some industrial processes and railroads. Operation of residential homes would not generate vibration intensive uses. However, perceptible levels of vibration would occur during construction activities. Because the project site is relatively flat, no pile driving, blasting or other vibration-intensive activity would be required in the construction effort. However, construction equipment utilized during project development would produce vibration from vehicle travel as well as grading and building construction activities. The nearest vibration-sensitive uses are the residences located adjacent to the eastern boundary of the 15.7-acre site. However, the construction equipment and activities would be dispersed throughout the construction site with the majority of the construction equipment located in the vicinity of the building pad area (average vibration levels). Table 18 lists the average levels of vibration that would be experienced at the nearest vibration-sensitive land uses at the 15.7-acre project site. As the 4.6-acre project site would only require interior renovations, no significant vibration levels would be generated at the ABCUSD office relocation site.

### 3. Environmental Analysis

**Table 18**  
**Average Vibration Source Levels for Construction Equipment**

<b>Vibration Annoyance Assessment</b>		
<b>Equipment</b>	<b>Velocity Level at Residents to East of 15.7-Acre Site (VdB)</b>	<b>Velocity Level at Residents to North of 15.7-Acre Site (VdB)</b>
Large bulldozer	69	65
Small bulldozer	40	36
Loaded trucks	68	64
Jackhammer <sup>1</sup>	61	57
Significance Threshold (VdB)	80	80
Exceeds Significance Threshold?	No	No
<b>Structural Damage Assessment</b>		
<b>Equipment</b>	<b>Approximate RMS Velocity at Residents to East of 15.7-Acre Site (in/sec)</b>	<b>Approximate RMS Velocity at Residents to North of 15.7-Acre Site (in/sec)</b>
Large bulldozer	0.0039	0.0021
Small bulldozer	0.0001	0.0001
Loaded trucks	0.0034	0.0018
Jackhammer <sup>1</sup>	00.0034	0.0008
Significance Threshold (in/sec)	0.2	0.2
Exceeds Significance Threshold?	No	No

Note: RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch/second.

<sup>1</sup>: Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet.

Source: The Planning Center, October 2006, based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2006.

The Federal Transit Administration (FTA) has established vibration level thresholds that would cause annoyance to a substantial number of people or damage to building structures. The FTA criterion for vibration-induced structural damage is 0.20 inch per second for the peak particle velocity (PPV). Project construction activities would result in PPV levels which are below the FTA's criteria for vibration-induced structural damage. As such, project construction activities would not result in a significant vibration impacts from vibration-induced structural damage to buildings proximate to the project site. The FTA criterion for vibration-induced annoyance is 80 Vibration Velocity (VdB) for residential uses. Construction of the project would generate levels of average levels of vibration that would not exceed the FTA criteria for nuisance for residential uses. Higher vibration levels generated from such activities would occur for limited duration when heavy construction equipment is operating in close proximity to the residential areas. Therefore, no significant adverse impacts related to vibration would result from project development and no mitigation measures are necessary.

**c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Less Than Significant Impact.** As noted in response 3.11a above, increases in noise levels related to the project are not projected to exceed the City's noise standards and are not considered to result in a significant impact to the noise environment. Similarly, noise from project traffic along local area roadways would not significantly increase noise levels in the project area and would likewise not result in a significant impact. Therefore, no mitigation measures are recommended.

### 3. Environmental Analysis

**d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

**Less Than Significant Impact.** Noise levels associated with construction activities would be higher than the ambient noise levels in the project area today, but would subside once construction of the proposed project is completed.

Two types of noise impacts could occur during the construction phase. First, the transport of workers and equipment to the construction site would incrementally increase noise levels along site access roadways. Even though there would be a relatively high single-event noise exposure potential with passing trucks (a maximum noise level of 86 dBA at 50 feet), the expected number of workers and trucks is small (an estimated 50 to 70 worker trips per day) relative to the background traffic and the increase in noise would be less than 1 dBA when averaged over a 24-hour period. The truck trips would be spread out throughout the workday and would primarily occur during nonpeak traffic periods. Therefore, these impacts are less than significant at noise receptors along the construction routes, and no mitigation measures are necessary.

The second type of impact is related to noise generated by on-site construction operations and local residents would be subject to elevated noise levels due to the operation of on-site construction equipment. As construction progresses, these various sequential construction phases would change the character of the noise generated on the site and the corresponding noise levels surrounding the site. Table 19 below lists typical construction noise levels based on the types of construction equipment used during each construction phase for use of construction equipment on the 15.7-acre project site. As the 4.6-acre project site would only require interior renovations, no significant noise levels would be generated at the ABCUSD office relocation site.



**Table 19**  
**Average Project-Related Construction Noise Levels**

<b>Construction Phase</b>	<b>Noise Levels (dBA <math>L_{eq}</math>)<sup>1,2</sup></b>	
	<b>Residents to the East of the 15.7-Acre Site</b>	<b>Residents to the North of the 15.7-Acre Site</b>
Ground Clearing/Demolition	71	67
Excavation/Grading	76	72
Foundation Construction	69	65
Building Construction	69	65
Finishing and Site Cleanup	76	72

Source: Based on Bolt, Beranek and Newman, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, prepared for the EPA, December 31, 1971, based on analysis for domestic housing using all applicable equipment in use.

The City of Cerritos allows for the generation of construction noise but limits the construction activities to the least noise-sensitive portions of the day. Noise levels during construction activities would be the greatest during grading activities. According to Section 22.80.480 of the City of Cerritos Municipal Code, construction activities are restricted to the hours of 7:00 AM and 7:00 PM weekdays, excluding federal holidays. While noise levels generated by construction activities at the project site at the sensitive use would result in temporary increases in the ambient noise environment, construction activities would be limited to the least noise-sensitive portions of the day and construction noise would cease after build-out of the project. Consequently, impacts from construction activities are less than significant.

### *3. Environmental Analysis*

---

- 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 expose people residing or working in the project area to excessive noise levels?**

**No Impact.** Long Beach Municipal Airport is the closest airport to the proposed project site, located approximately five miles southwest of the project area. Neither project site is located within the jurisdiction of any airport plans associated with any local airports. Project implementation would not expose people residing or working in the project area to excessive noise levels with regard to airport-related noise sources. No mitigation measures are required.

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

**No Impact.** As discussed above, the proposed project site is not located within the jurisdiction of any airport land use plans. Project implementation would not expose people residing or working in the project area to excessive noise levels with regard to airport-related noise sources. No mitigation measures are necessary.

#### **3.12 POPULATION AND HOUSING**

- a) **Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

**Less Than Significant Impact.** The proposed project would result in a slight population growth through the development and construction of a 247-unit affordable senior residential community. According to the 2000 Census, Cerritos has an average household size of 3.34 persons per household. Thus, the project would generate a maximum of 825 new persons. This would represent approximately one percent of the total population of Cerritos. However, this number is actually anticipated to be much less because the project is an age-restricted senior community, and there would be no families with children moving into the complex. Thus, this number is not considered a substantial growth in population. No significant impacts would occur and no mitigation measures are necessary.

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

**No Impact.** Neither component of the proposed project would displace any existing housing, necessitating the construction or replacement of housing elsewhere. No significant impacts would occur and no mitigation measures are necessary.

- c) **Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?**

**No Impact.** Neither project site contains any housing that would be demolished or would displace any people. No significant impacts would occur and no mitigation measures are necessary.

#### **3.13 PUBLIC SERVICES**

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

### 3. Environmental Analysis

---

construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

#### a) Fire protection?

**Less Than Significant Impact.** The City of Cerritos contracts with the County of Los Angeles Fire Department for fire and emergency response service. There are two fire stations located in Cerritos. Station 30, located at 19030 Pioneer Boulevard, has a three-person engine company, a four-person quint company, and a two-person paramedic squad. Station 35, located at 13717 Artesia Boulevard, has a three-person engine company. In addition, three fire stations outside the Cerritos City limits have jurisdiction within the City.

The proposed affordable senior housing community would create additional demand for fire services by adding a maximum of 825 residents to the City of Cerritos. However, this number is anticipated to be much lower as the project consists of senior housing. Because the overall population gain is expected to be, at maximum, one percent of the City's total population, no significant impacts to fire protection services would occur.

The relocation of the District administrative functions, including the District office, central kitchen facility and warehouse, would not impact fire protection services, as the facilities will be relocated to a different location within Cerritos and no additional population would be added. No mitigation measures are necessary.

#### b) Police protection?

**Less Than Significant Impact.** The Los Angeles County Sheriff's Department (LACSD) provides police service for the City of Cerritos. The Cerritos Sheriff's station is located at 18135 S. Bloomfield Avenue in the Cerritos Civic Center. The department has 64 sworn staff, 10 reserve Deputy Sheriffs, 20 professional staff, and 47 station volunteers on patrol.

Response times are categorized by emergency response, immediate response, and routine response. The average response time to areas within the City of Cerritos are 4 minutes for emergency calls, 7 minutes for priority calls, and 18 minutes for routine calls.

The proposed residential project would create additional demand for police services by adding a maximum of 825 residents to the City of Cerritos. However, this number is anticipated to be much lower as the project consists of an affordable senior housing community. Because the overall population gain is expected to be, at maximum, one percent of the City's total population, no significant impacts to police protection services would occur.

The relocation of the District administrative functions, including the District office, central kitchen facility and warehouse, would not impact police protection services, as the facilities would be relocated to a different location within Cerritos and no additional population would be added. No mitigation measures are necessary.

#### c) Schools?

**Less Than Significant Impact.** The City of Cerritos is served by the ABC Unified School District. There are nine elementary schools, three middle schools, and four high schools located within the City. In general, the construction of residential housing creates an impact on the local school systems by generating additional students. However, as described below, the proposed project would not generate any impacts on the school system.



### *3. Environmental Analysis*

---

#### **District Property Conversion**

The affordable senior housing project component of the proposed project would involve the conversion of District-owned property from an educational use (i.e., District office facility used for non-classroom administrative functions) to a residential use. Education Code 17466 requires that the District assemble an advisory committee to determine if District-owned property is surplus and no longer needed. Under this Education Code, the committee must be comprised of not less than 7 nor more than 11 members. The District's 7-11 Committee has prepared a report detailing the use of underutilized and surplus District property within the District's boundaries. The 16700 Norwalk Boulevard property was one such property identified in the Committee's report. (Subsequently, on May 1, 2007, the ABCUSD Board of Education declared this to be surplus property.) In the report, the District illustrates that enrollment within the District has declined over the past several years. The District expects this trend to continue in the future. The District concluded that there are adequate existing District facilities to house the existing student population within the District as well as accommodate any population growth without the need for new facilities.

#### **Student Generation**

California Educational Code Section 17620 authorizes school districts to collect fees for the mitigation of new development projects. These fees are collected by the relevant school district prior to City issuance of building permits for new development. The project applicant would be required to pay developer fees to the ABC Unified School District. Government Code Section 65595 establishes the allowable school impact fee, which may be assessed on commercial and residential development. Based on the current fee structure for residential developments, construction can be assessed on a \$2.63 per square foot.

The proposed residential component of the project (247-unit affordable senior residential community) would not generate any additional students because of the age restriction on the project. All residents of the project would be required to be at least 55 years of age. Because no students would be generated, there would be no impacts on the school system. No mitigation measures are necessary.

#### **d) Parks?**

**Less Than Significant Impact.** Residential development typically results in increased demands on park facilities. Since the project involves the development of new housing, an increase in demand for local and regional parks is anticipated.

The proposed project includes the construction of an approximately four-acre public park. The senior center would serve the residents of the affordable senior residential community as well as the senior population in the surrounding area. The park would serve the residents of the affordable senior residential community as well as the residents of the surrounding neighborhoods. The construction of this park in conjunction with the proposed senior center would mitigate any park needs that arise as a result of the construction of the proposed senior units. No significant impacts would occur and no mitigation measures are necessary.

#### **e) Other public facilities**

**No Impact.** Both sites are located in developed, urban areas where public utilities and facilities are in place. Neither component of the project would result in substantial adverse impacts to any other public facilities. Connection to water and wastewater systems are already in place for the existing on-site uses. No significant impacts would result from the proposed project and no mitigation measures are necessary.

### 3.14 RECREATION

- 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?**

**Less Than Significant Impact.** The proposed project would involve five main components on two separate project sites. The first three components, associated with the redevelopment of the 16700 Norwalk Boulevard site, include an affordable senior housing community, a senior center, and a park. The final two components, associated with the 12880 Moore Street/12881 166<sup>th</sup> Street site, include the relocation of the ABCUSD's administrative offices, as well as their central kitchen and warehouse.

Residential development typically results in an increased demand on park and recreational facilities. Since the project involves the development of new housing, an increase in demand for local and regional parks is anticipated. However, the proposed project would construct a senior center and an approximately four-acre public park as part of the project. The construction of these park and recreational facilities would reduce impacts on other local park and recreational facilities to less than significant. In addition, both facilities would be available to patrons beyond those who live in the senior housing, reducing the impact on other local park and recreational facilities. No significant impacts would occur and no mitigation measures are necessary.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?**

**Less Than Significant Impact.** The proposed project would include five components, two of which are the construction of a senior center and an approximately four-acre public park. The construction of these two facilities would serve the increased population from the construction of the senior housing as well as other residents of the city of Cerritos. The construction of these facilities would be a beneficial impact to the City in that the demand on other local park and recreation facilities would be reduced. No significant impacts would occur and no mitigation measures are necessary.



### 3.15 TRANSPORTATION/TRAFFIC

- a) **Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**

**Less Than Significant Impact.** The proposed project would involve five main components on two separate project sites. The first three components, associated with the redevelopment of the 16700 Norwalk Boulevard site, include an affordable senior housing community, a senior center, and a park. The final two components include the relocation of the ABCUSD's offices, warehouse, and central kitchen facility to 12880 Moore Street/12881 166<sup>th</sup> Street. The redevelopment of the 16700 Norwalk Boulevard site would require the demolition and removal of existing uses and structures, while the relocation of the District administrative facilities to the 12880 Moore Street/12881 166<sup>th</sup> Street site would involve the reutilization of the two buildings currently on that site.

#### Existing Traffic Setting

Roadways that would be utilized by the development include Norwalk Boulevard, Bloomfield Avenue, Shoemaker Avenue, Alondra Boulevard, 166<sup>th</sup> Street, Cuesta Drive, Palm Street, Artesia Boulevard, Lucas Street, and Park Plaza Drive.

### 3. Environmental Analysis

---

- **Norwalk Boulevard.** This north–south roadway is currently four lanes undivided to four lanes divided in the project area. It currently carries approximately 14,600 to 22,000 vehicles per day in the project area.
- **Bloomfield Avenue.** This north–south roadway is currently four lanes divided to five lanes divided in the project area. It currently carries approximately 16,000 to 21,800 vehicles per day in the project area.
- **Shoemaker Avenue.** This north–south roadway is currently four lanes divided in the project area. It currently carries approximately 7,400 to 16,500 vehicles per day in the project area.
- **Alondra Boulevard.** This east–west roadway is currently four lanes divided to five lanes divided in the project area. It currently carries approximately 16,600 to 20,500 vehicles per day in the project area.
- **166<sup>th</sup> Street.** This east–west roadway is currently four lanes undivided to four lanes divided in the project area. It currently carries approximately 11,000 to 14,200 vehicles per day in the study area.
- **Cuesta Drive.** This east–west roadway is currently two lanes undivided in the project area. It currently carries approximately 7,500 vehicles per day in the project area.
- **Palm Street.** This east–west roadway is currently two lanes undivided in the project area. It currently carries approximately 4,300 vehicles per day in the project area.
- **Lucas Street.** This east–west roadway currently is two lanes undivided in the study area. It currently carries approximately 2,000 vehicles per day on the study area.
- **Artesia Boulevard.** This east–west roadway is currently four lanes divided in the project area. It currently carries approximately 21,000 to 25,100 vehicles per day in the project area.
- **Park Plaza Drive.** This east–west roadway currently is four lanes divided to five lanes divided in the study area. It currently carries approximately 9,900 to 11,600 vehicles per day in the study area.

#### Existing Levels of Service

The technique used to assess the operation of an intersection is known as Intersection Capacity Utilization (ICU). To calculate an ICU value, the volume of traffic using the intersection is compared with the capacity of the intersection. An ICU value is usually expressed as a decimal. The decimal represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The ICUs for the existing traffic conditions have been calculated and are shown in Table 20. Existing ICUs are based on manual morning and evening peak-hour intersection turning movement counts made for Kunzman Associates in April and May 2007. The traffic count worksheets are provided in Appendix C.

### 3. Environmental Analysis

**Table 20**  
**Existing Intersection Capacity Utilization and Level of Service**

Intersection	Traffic Control <sup>2</sup>	Intersection Approach Lanes <sup>1</sup>								Peak-Hour Level of Service					
		Northbound			Southbound			Eastbound		Westbound		Morning	Evening		
		L	T	R	L	T	R	L	T	R	L			T	R
Norwalk Blvd. (NS) at: Alondra Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.773-C	0.701-C
166 <sup>th</sup> St. (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	1	0.610-B	0.622-B
Cuesta Dr. (EW)	TS	1	2	0	1	2	0	0	0	0	1	0	1	0.654-B	0.544-A
SR-91 Fwy. WB Off-Ramp (EW)	TS	1	2	0	1	2	0	0	0	0	1	0	1	0.492-A	0.471-A
SR-91 Fwy. EB Off-Ramp/Palm St. (EW)	TS	1	2	0	1	2	0	1	1	0	1	0	1	0.620-B	0.697-B
Artesia Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.775-C	0.825-D
Bloomfield Ave. (NS) at: Alondra Blvd. (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	0.463-A	0.642-B
166 <sup>th</sup> St. (EW)	TS	1	2	1	1	2	1	1	2	0	1	2	0	0.647-B	0.729-C
SR-91 Fwy. WE On-Ramp/Lucas St (EW)	TS	1	2	1	1	2	0	0	0	0	0	1	0	0.513-A	0.566-A
SR-91 Fwy. EB Off-Ramp (EW)	TS	0	2	0	0	2	0	1	0	0	0	0	0	0.659-B	0.730-C
Artesia Blvd. (EW)	TS	1	2	0	2	2	0	1	2	1	2	2	0	0.688-B	0.786-C
SR-91 Fwy. WB Off-Ramp (NS) at: Artesia Blvd. (EW)	TS	1	0	1	0	0	0	0	2	0	0	2	0	0.507-A	0.767-C
SR-91 Fwy. EB Ramps (NS) at: Park Plaza Dr. (EW)	TS	0	0	0	1.5	0	1.5	2	2	0	0	3	1	0.370-A	0.476-A
Shoemaker Ave. (NS) at: Alondra Blvd (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.438-A	0.528-A
166 <sup>th</sup> St. (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.488-A	0.618-A
Artesia Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.632-A	0.863-D
Park Plaza Dr. (EW)	TS	1	2	0	1	2	1	2	0	1	0	0	0	0.433-A	0.610-B

<sup>1</sup> When a right-turn lane is designated, the lane can either be striped or unstriped. To function as a right-turn lane, there must be sufficient width for right-turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

<sup>2</sup> TS = Traffic Signal

Source: Kunzman Associates, 2007.



There are two peak hours in a weekday. The morning peak hour is between 7:00 AM and 9:00 AM, and the evening peak hour is between 4:00 PM and 6:00 PM. The actual peak hour within the two hour interval is the four consecutive 15-minute periods with the highest total volume when all movements are added together. Thus, the evening peak hour at one intersection may be 4:45 PM to 5:45 PM of those four consecutive 15-minute periods have the highest combined volume.

All of the intersections within the project area currently operate at Level of Service D or better during the peak hours for existing traffic conditions. Existing ICU worksheets are provided in Appendix C.

#### Trip Generation

The traffic generated by the project is determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are predicated on the assumption that energy costs, the avail-

### 3. Environmental Analysis

---

ability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic, morning peak-hour inbound and outbound traffic, and evening peak-hour inbound and outbound traffic for the proposed land uses. By multiplying the traffic generation rates by the land use quantities, the traffic volumes are determined. Tables 21 through 26 show the traffic generation rates, project peak-hour volumes, and project daily traffic volumes. The traffic generation rates are from the Institute of Transportation Engineers, *Trip Generation*, 7<sup>th</sup> Ed., 2003.

The proposed project would generate approximately 1,744 daily vehicle trips, with 129 trips during the morning peak hour and 149 trips during the evening peak hour.

**Table 21**  
**Affordable Senior Residential Community**  
**Project Traffic Generation Trip Generation Rates**

Land Use	Quantity	Units <sup>1</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<b>Trip Generation Rates</b>									
Multi-Family Attached <sup>2</sup>	247	DU	0.07	0.37	0.44	0.35	0.17	0.52	5.86
Community Center (including park)	13.000	TSF	0.99	0.63	1.62	0.48	1.16	1.64	22.88
<b>Trips Generated</b>									
Multifamily Attached	247	DU	17	91	108	86	42	128	1,447
Community Center	13.000	TSF	13	8	21	6	15	21	297
<b>Total</b>			<b>30</b>	<b>99</b>	<b>129</b>	<b>92</b>	<b>57</b>	<b>149</b>	<b>1,744</b>

<sup>1</sup> DU = Dwelling Unit; TSF = Thousand Square Feet

<sup>2</sup> In order to provide a "worst case" scenario, the warehouse/kitchen portion of the project site is assumed to have been moved off-site and replaced by 27 multifamily attached residential dwelling units.

Source: Institute of Transportation Engineers, *Trip Generation*, 7<sup>th</sup> Ed., 2003, Land Use Categories 230 and 495.

### 3. Environmental Analysis

**Table 22**  
**Affordable Senior Residential Community**  
**Project Traffic Generation Actual Counts**

Land Use	Quantity	Units <sup>1</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<b>Actual Counts<sup>2</sup></b>									
Emerald Villas	126	DU							
Wednesday			12	22	34	22	20	42	354
Thursday			15	21	36	16	21	37	356
Average			14	22	36	19	21	40	355
Pioneer Villas	98	DU							
Wednesday			38	34	72	19	23	42	518
Thursday			35	32	67	18	18	36	508
Average			37	33	70	19	21	40	513
<b>Comparison to 247 DU</b>									
Emerald Villas	247	DU							
Average			27	43	71	37	40	78	696
Pioneer Villas	247	DU							
Average			93	84	177	47	52	102	1,309
<b>Total Average</b>			<b>60</b>	<b>64</b>	<b>124</b>	<b>42</b>	<b>46</b>	<b>88</b>	<b>1,002</b>
<b>Difference<sup>3</sup></b>					<b>+16</b>			<b>-40</b>	<b>-445</b>

<sup>1</sup> DU = Dwelling Unit

<sup>2</sup> Actual counts obtained from 24-hour tube counts.

<sup>3</sup> Difference in trips generated from Institute of Transportation Engineers' rates for 247 dwelling units to actual counts.

Source: Institute of Transportation Engineers, *Trip Generation*, 7<sup>th</sup> Ed., 2003, Land Use Categories 230 and 495.



**Table 23**  
**ABC USD Office/Kitchen/Warehouse**  
**Project Traffic Generation Trip Generation Rates**

Land Use	Quantity	Units <sup>1</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<b>Trip Generation Rates</b>									
Office	125	EMP	0.57	0.07	0.64	0.11	0.60	0.71	4.87
<b>Trips Generated</b>									
Office	125	EMP	71	9	80	14	75	89	609
<b>Total</b>			<b>71</b>	<b>9</b>	<b>80</b>	<b>14</b>	<b>75</b>	<b>89</b>	<b>609</b>

<sup>1</sup> EMP=Employee; TSF=Thousand Square Feet

Source: Institute of Transportation Engineers, *Trip Generation*, 7<sup>th</sup> Ed., 2003, Land Use Categories 710 and 715.

### 3. Environmental Analysis

**Table 24**  
**ABC USD Office/Kitchen/Warehouse**  
**Project Traffic Generation Actual Counts**

Land Use	Quantity	Units <sup>1</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<b>Trip Generation Rates</b> Office	45.850	TSF	1.36	0.19	1.55	0.25	1.24	1.49	11.01
<b>Trips Generated</b> Office	45.850	TSF	62	9	71	11	57	68	505
<b>Total</b>			<b>62</b>	<b>9</b>	<b>71</b>	<b>11</b>	<b>57</b>	<b>68</b>	<b>505</b>

<sup>1</sup> EMP=Employee; TSF=Thousand Square Feet

Source: Institute of Transportation Engineers, *Trip Generation*, 7<sup>th</sup> Ed., 2003, Land Use Categories 710 and 715.

**Table 25**  
**Affordable Senior Residential Community**  
**Project Traffic Generation Comparison**

Land Use	Quantity	Units <sup>1</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<b>Existing<sup>1</sup></b> Multifamily Attached	125	EMP	71	9	80	14	75	89	609
<b>Proposed</b> Multifamily Attached			17	91	108	86	42	128	1,447
Community Center	247	DU	13	8	21	6	15	21	297
<b>Subtotal</b>	<b>13.000</b>	<b>TSF</b>	<b>30</b>	<b>99</b>	<b>129</b>	<b>92</b>	<b>57</b>	<b>149</b>	<b>1,744</b>
<b>Difference</b>			<b>-41</b>	<b>+90</b>	<b>+49</b>	<b>+78</b>	<b>-18</b>	<b>+60</b>	<b>+1,135</b>

<sup>1</sup> EMP = Employees; DU = Dwelling Unit; TSF = Thousand Square feet

Source: Institute of Transportation Engineers, *Trip Generation*, 7<sup>th</sup> Ed., 2003, Land Use Categories 230 and 495 (existing) and 715 (proposed).

**Table 26**  
**ABC USD Office/Kitchen/Warehouse**  
**Project Traffic Generation Comparison**

Land Use	Quantity	Units <sup>1</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<b>Existing<sup>1</sup></b> Office <sup>2</sup>	45.850	TSF	62	9	71	14	57	68	505
<b>Proposed</b> Office	125	EMP	71	9	80	14	75	89	609
<b>Difference</b>			<b>+9</b>	<b>0</b>	<b>+9</b>	<b>+3</b>	<b>-18</b>	<b>+21</b>	<b>+104</b>

<sup>1</sup> EMP = Employees; DU = Dwelling Unit; TSF = Thousand Square feet

<sup>2</sup>To provide for a "worst case" scenario, it has been assumed that the existing light industrial building on the relocation site would be replaced by the kitchen facility currently located on the project site.

Source: Institute of Transportation Engineers, *Trip Generation*, 7<sup>th</sup> Ed., 2003, Land Use Categories 710 (existing) and 715 (proposed).

### **Trip Generation Comparison**

#### *16700 Norwalk Boulevard*

The Institute of Transportation Engineers trip generation for the proposed project anticipates approximately 445 more daily vehicle trips; 16 fewer vehicles per hour would occur during the morning peak hour, and 40 more vehicles per hour during the evening peak hour than the actual counts obtained from the Emerald Villas and Pioneer Villas affordable senior housing communities. In order to provide a worst case scenario, the trip generation rates from the Institute of Transportation Engineers, Trip Generation, 7<sup>th</sup> Edition (2003) were used in the analysis throughout this report.

#### *12880 Moore Street/12881 166<sup>th</sup> Street*

The current District offices generate approximately 609 daily vehicle trips, with 80 vehicles per hour during the morning peak hour and 89 vehicles per hour during the evening peak hour. The proposed project is projected to generate approximately 1,135 more daily vehicle trips, 49 more vehicles per hour would occur during the morning peak hour, and 60 more vehicles per hour would occur during the evening peak hour than the current District office facility.

The existing buildings at 12880 Moore Street/12881 166<sup>th</sup> Street generate approximately 505 daily vehicle trips, with 71 vehicles per hour occurring during the morning peak hour and 68 vehicles per hour occurring during the evening peak hour.

The proposed relocation of the ABC Unified School District offices, central kitchen, and warehouse is projected to generate approximately 104 more daily vehicle trips, with nine more vehicles per hour occurring during the morning peak hour, and 21 more vehicles per hour occurring during the evening peak hour. In order to provide a worst-case scenario, it has been assumed that the existing light industrial building on the site would be replaced by the kitchen facility.



### **Opening Year (2011) Conditions**

To assess opening year (2011) traffic conditions, project traffic is combined with existing traffic, other development, and areawide growth. Pursuant to discussions with City staff, there are currently not any approved developments that would impact the project area. An areawide growth rate has been utilized to account for growth on study area roadways. Opening year (2011) traffic volumes have been calculated based on a 0.3 percent annual growth rate of existing traffic volumes over a two-year period. The area-wide growth rate was obtained from previous traffic studies within Cerritos.

### **Opening Year Level of Service**

The technique used to assess the operation of an intersection is known as Intersection Capacity Utilization (ICU). To calculate an ICU, the volume of traffic using the intersection is compared with the capacity of the intersection. An ICU value is usually expressed as a percent. The percent represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The ICU for the opening year (2011) without project traffic conditions are shown in Table 27. The study area intersections are projected to operate at LOS D or better during the peak hours for opening year (2011) without project traffic conditions.

### 3. Environmental Analysis

**Table 27**  
**Opening Year (2011) Without Project Intersection Capacity Utilization and Level of Service**

Intersection	Traffic Control <sup>2</sup>	Intersection Approach Lanes <sup>1</sup>												Peak-Hour Level of Service		
		Northbound			Southbound			Eastbound			Westbound			Morning	Evening	
		L	T	R	L	T	R	L	T	R	L	T	R			
Norwalk Blvd. (NS) at:																
Alondra Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.781-C	0.708-C	
166 <sup>th</sup> St. (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.616-B	0.628-B	
Cuesta Dr. (EW)	TS	1	2	0	1	2	0	0	0	0	1	0	1	0.661-B	0.549-A	
SR-91 Fwy. WB Off-Ramp (EW)	TS	0	2	0	0	2	0	0	0	0	1	0	1	0.496-A	0.475-A	
SR-91 Fwy. EB Off-Ramp/Palm St. (EW)	TS	0	2	0	1	2	0	1	1	0	1	0	1	0.626-B	0.704-B	
Artesia Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.783-C	0.833-D	
Bloomfield Ave. (NS) at:																
Alondra Blvd. (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	0.467-A	0.649-B	
166 <sup>th</sup> St. (EW)	TS	1	2	1	1	2	1	1	2	0	1	2	0	0.654-B	0.737-C	
SR-91 Fwy. WE On-Ramp/Lucas St. (EW)	TS	1	2	1	1	2	0	0	0	0	0	1	0	0.518-A	0.571-A	
SR-91 Fwy. EB Off-Ramp (EW)	TS	0	2	0	0	2	0	1	0	1	0	0	0	0.666-B	0.737-C	
Artesia Blvd. (EW)	TS	1	2	0	2	3	0	1	2	1	2	2	0	0.695-B	0.794-C	
SR-91 Fwy. WB Off-Ramp (NS) at:																
Artesia Blvd. (EW)	TS	1	0	1	0	0	0	0	2	0	0	2	0	0.511-A	0.775-C	
SR-91 Fwy. EB Ramps (NS) at:																
Park Plaza Dr. (EW)	TS	0	0	0	1.5	0	1.5	2	2	0	0	3	1	0.374-A	0.480-A	
Shoemaker Ave. (NS) at:																
Alondra Blvd (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.422-A	0.533-A	
166 <sup>th</sup> St. (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.493-A	0.624-A	
Artesia Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.639-B	0.872-D	
Park Plaza Dr. (EW)	TS	1	2	0	1	2	1	2	0	1	0	0	0	0.437-A	0.616-B	

<sup>1</sup> When a right-turn lane is designated, the lane can either be striped or unstriped. To function as a right-turn lane, there must be sufficient width for right-turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

<sup>2</sup> TS = Traffic Signal

Source: Kunzman Associates, 2007.

The ICU for the opening year (2011) with project traffic conditions are shown in Table 28. The study area intersections would operate at LOS D or better during the peak hours for opening year (2011) with project traffic conditions.

### 3. Environmental Analysis

**Table 28**  
**Intersection Capacity Utilization and Level of Service for Opening Year 2011**

Intersection	Traffic Control <sup>2</sup>	Intersection Approach Lanes <sup>1</sup>												Peak-Hour Level of Service	
		Northbound			Southbound			Eastbound			Westbound			Morning	Evening
		L	T	R	L	T	R	L	T	R	L	T	R		
Norwalk Blvd. (NS) at: Alondra Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.787-C	0.713-C
166 <sup>th</sup> St. (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.622-B	0.647-B
Cuesta Dr. (EW)	TS	1	2	0	1	2	0	0	0	0	1	0	1	0.679-B	0.570-A
SR-91 Fwy. WB Off-Ramp (EW)	TS	0	2	0	0	2	0	0	0	0	1	0	1	0.496-A	0.494-A
SR-91 Fwy. EB Off-Ramp/Palm St. (EW)	TS	0	2	0	1	2	0	1	1	0	1	0	1	0.627-B	0.720-B
Artesia Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.785-C	0.833-D
Bloomfield Ave. (NS) at: Alondra Blvd. (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	0.470-A	0.652-B
166 <sup>th</sup> St. (EW)	TS	1	2	1	1	2	1	1	2	0	1	2	0	0.661-B	0.740-C
SR-91 Fwy. WE On-Ramp/Lucas St. (EW)	TS	1	2	1	1	2	0	0	0	0	0	1	0	0.519-A	0.572-A
SR-91 Fwy EB Off-Ramp (EW)	TS	0	2	0	0	2	0	1	0	1	0	0	0	0.667-B	0.738-C
Artesia Blvd. (EW)	TS	1	2	0	2	3	0	1	2	1	2	2	0	0.697-B	0.796-C
SR-91 Fwy. WB Off-Ramp (NS) at: Artesia Blvd. (EW)	TS	1	0	1	0	0	0	0	2	0	0	2	0	0.513-A	0.776-C
SR-91 Fwy. EB Ramps (NS) at: Park Plaza Dr. (EW)	TS	0	0	0	1.5	0	1.5	2	2	0	0	3	1	0.374-A	0.482-A
Shoemaker Ave. (NS) at: Alondra Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.443-A	0.535-A
166 <sup>th</sup> St. (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.493-A	0.627-A
Artesia Blvd. (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.640-A	0.875-D
Park Plaza Dr. (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	0.437-A	0.618-B

<sup>1</sup> When a right-turn lane is designated, the lane can either be striped or unstriped. To function as a right-turn lane, there must be sufficient width for right-turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

<sup>2</sup> TS = Traffic Signal

Source: Kunzman Associates, 2007.



In the City of Cerritos, a traffic impact is considered significant if the project-related increase in the volume to capacity ratio equals or exceeds the thresholds shown in Table 29. Table 30 below shows the opening year (2011) project traffic contribution at the study area intersections. As shown on the table, the intersections would not be significantly impacted by the project. No mitigation measures are necessary.

**Table 29**  
**Significant Impact Threshold for Intersections**

Level of Service	Volume/Capacity	Incremental Increase
C	0.71 – 0.80	0.04 or more
D	0.81 – 0.90	0.02 or more
E	0.91 - More	0.01 or more

### 3. Environmental Analysis

**Table 30**  
**Project Traffic Contribution**

Intersection	Peak Hour	Opening Year (2011) Without Project		Opening Year (2011) With Project			
		Intersection Capacity Utilization	Level of Service	Without Mitigation			
				Intersection Capacity Utilization	Level of Service	Project Impact	Significant Impact <sup>1</sup>
Norwalk Blvd. (NS) at: Alondra Blvd. (EW)	Morning	0.781	C	0.787	C	0.006	No
	Evening	0.708	C	0.713	C	0.005	No
166 <sup>th</sup> St. (EW)	Morning	0.616	B	0.622	B	0.006	No
	Evening	0.628	B	0.647	B	0.019	No
Cuesta Dr. (EW)	Morning	0.661	B	0.679	B	0.018	No
	Evening	0.549	A	0.570	A	0.021	No
SR-91 Fwy. WB Off-Ramp (EW)	Morning	0.496	A	0.496	A	0.000	No
	Evening	0.475	A	0.494	A	0.019	No
SR-91 Fwy. EB Off-Ramp/ Palm Street (EW)	Morning	0.626	B	0.627	B	0.001	No
	Evening	0.704	C	0.720	C	0.016	No
Artesia Blvd. (EW)	Morning	0.783	C	0.785	C	0.002	No
	Evening	0.833	D	0.833	D	0.000	No
Bloomfield Ave. (NS) at: Alondra Blvd. (EW)	Morning	0.467	A	0.470	A	0.003	No
	Evening	0.649	B	0.652	B	0.003	No
166 <sup>th</sup> St. (EW)	Morning	0.654	B	0.661	B	0.007	No
	Evening	0.737	C	0.740	C	0.003	No
SR-91 Fwy. WB On-Ramp/ Lucas St. (EW)	Morning	0.518	A	0.519	A	0.001	No
	Evening	0.571	A	0.572	A	0.001	No
SR-91 Fwy. EB Off-Ramp (EW)	Morning	0.666	B	0.667	B	0.001	No
	Evening	0.737	C	0.738	C	0.001	No
Artesia Blvd. (EW)	Morning	0.695	B	0.697	B	0.002	No
	Evening	0.794	C	0.796	C	0.002	No
SR-91 Fwy WB Off-Ramp (NS) at: Artesia Blvd. (EW)	Morning	0.511	A	0.513	A	0.002	No
	Evening	0.775	C	0.776	C	0.001	No
SR-91 Fwy EB Ramps (NS) at: Park Plaza Dr. (EW)	Morning	0.374	A	0.374	A	0.000	No
	Evening	0.480	A	0.482	A	0.002	No
Shoemaker Ave. (NS) at: Alondra Blvd. (EW)	Morning	0.422	A	0.443	A	0.001	No
	Evening	0.533	A	0.535	A	0.002	No
166 <sup>th</sup> S. (EW)	Morning	0.493	A	0.493	A	0.000	No
	Evening	0.624	B	0.627	B	0.003	No
Artesia Blvd. (EW)	Morning	0.639	B	0.640	B	0.001	No
	Evening	0.872	D	0.875	D	0.003	No
Plaza Dr. (EW)	Morning	0.437	A	0.437	A	0.000	No
	Evening	0.616	B	0.618	B	0.002	No

Source: Kunzman Associates, 2007.

### 3. Environmental Analysis

---

**b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?**

**Less Than Significant Impact.** The Congestion Management Program (CMP) is a result of Proposition 111, which was a statewide initiative approved by the voters in June 1990. The proposition allowed for a \$0.09 per-gallon state gasoline tax increase over a five-year period.

Proposition 111 stated that the new gas tax revenues were to be used to fix existing traffic problems and not to promote future development. For a city to get its share of the Proposition 111 gas tax, it has to follow certain procedures specified by the state legislature. The legislation requires that a TIA (TIA) be prepared for new development. The Traffic Impact Analysis (TIA) is prepared to monitor and fix traffic problems caused by new development.

The legislature requires that adjacent jurisdictions use a standard methodology for conducting a TIA. To assure that adjacent jurisdictions use a standard methodology in preparing the analysis, one common procedure is that all cities within a county, and the county agency itself, adopt and use one standard methodology for conducting the analysis.

Although each county has developed standards for preparing TIAs, the requirements vary in detail from one county to another, but not in overall intent or concept. The general approach selected by each county for conducting the analysis has common elements.

The general approach for conducting a TIA is that existing weekday peak-hour traffic is counted and the percentage of roadway capacity currently used is determined. The growth in traffic is accounted for and added to existing traffic and the percentage of roadway capacity used is again determined. Then the project traffic is added and the percentage of roadway capacity used is again determined. If the new project adds traffic to an overcrowded facility, then the new project has to mitigate the traffic impact so that the facility operates at a level that is no worse than before the project traffic was added.

If the project size is below a certain minimum threshold level, then a project does not have to have a TIA prepared. If a project exceeds the minimum threshold size, then a TIA is required.

The TIA must include all monitored intersections to which the project adds traffic above a certain minimum amount. In Los Angeles County, the minimum project-added traffic that is needed before an intersection has to be studied is 50 two-way trips in either the morning or evening weekday peak hour. If a project adds more traffic than the minimum threshold amount to an intersection, then that intersection has to be analyzed for deficiencies.

If the intersection has to be analyzed for deficiencies, then mitigation is required if the existing traffic plus anticipated traffic growth plus project traffic causes the ICU to go above a specified threshold.

In Los Angeles County, the impact is considered significant if the project-related increase in the volume to capacity ratio equals or exceeds the thresholds shown in Table 29.

An intersection mitigation measure has to either fix the deficiency or reduce the ICU so that it is below the level that occurs without the project.

The traffic analysis prepared for the proposed project was prepared in accordance with the TIA requirements. The TIA not only examined the CMP system of roads and intersections, but also included other roads and intersections.



### *3. Environmental Analysis*

---

The project-generated traffic was added to intersections, and a full intersection analysis was conducted, even when the project-added traffic failed to meet the minimum thresholds that require an intersection analysis.

As shown in Table 28, no intersections would exceed the significance thresholds. No significant impacts would occur and no mitigation measures are necessary.

**c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

**No Impact.** The proposed project is not located within the immediate vicinity of any airports, and would not conflict with any air traffic patterns. No significant impacts would occur and no mitigation measures are necessary.

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

**Less Than Significant Impact.**

**16700 Norwalk Boulevard**

The main access to the senior residential community would be off of Cuesta Drive. Although Cuesta Drive has a slight curve in it, the line of sight from the driveway is adequate and would not present a hazard. An additional secondary access point would be located off of 166<sup>th</sup> Street. This roadway is straight and does not create a potential hazard.

**12880 Moore Street/12881 166<sup>th</sup> Street**

Access to this site is currently taken from both Moore Street and 166<sup>th</sup> Street. There are no sharp curves, dangerous intersections, or incompatible uses within the vicinity of this site that would pose a traffic hazard. No significant impacts would occur and no mitigation measures are necessary.

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

**Less Than Significant Impact.** The proposed access and circulation features at both sites would not change significantly and would continue to accommodate emergency ingress and egress by fire trucks, police units, and ambulance/paramedic vehicles. All access features are subject to and must satisfy fire department design requirements. Therefore, no significant impacts would occur as a result of the proposed project and no mitigation measures are required.

**f) Result in inadequate parking capacity?**

**Less Than Significant Impact.**

**16700 Norwalk Boulevard**

The city's municipal code requires 2 spaces per two-bedroom unit, 1 space per one-bedroom unit, and 0.25 guest space per bedroom, for a total of 363 spaces for this project. A total of 393 parking stalls have been proposed for the affordable senior residential community.

#### **12880 Moore Street/12881 166<sup>th</sup> Street**

Cerritos' Municipal Code requires one parking space for every 250 square feet of gross office area. Therefore, the approximately 44,500-square-foot office building located at 12881 166<sup>th</sup> Street requires 178 parking spaces. A total of 174 parking spaces are currently provided on the site.

Cerritos' Municipal Code requires one parking space for every 1,000 square feet of warehouse area. Therefore, the approximately 35,500-square-foot warehouse building located at 12880 Moore Street requires 35 parking spaces. A total of 48 parking spaces are currently provided on the site.

Since the ABC Unified School District would be utilizing both sites for District use, a total of 213 total spaces would be required. A total of 222 spaces are located on the site, thus meeting the parking requirements.

The parking proposed for each project site is in compliance with the parking required under the City's Municipal Code. No significant impacts would occur and no mitigation measures are necessary.

#### **g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

**Less Than Significant Impact.** The proposed project would not conflict with adopted policies supporting alternative transportation. Public transportation is readily available in and around the City of Cerritos, including both project sites. No significant impacts would occur and no mitigation measures are necessary.

#### **3.16 UTILITIES AND SERVICE SYSTEMS**

#### **a) Exceed waste water treatment requirements of the applicable Regional Water Quality Control Board?**

**Less Than Significant Impact.** The proposed project would involve five main components on two separate project sites. The first three components, associated with the redevelopment of the 16700 Norwalk Boulevard site, include an affordable senior housing community, a senior center, and a park. The final two components, associated with the 12880 Moore Street/12881 166<sup>th</sup> Street site, include the relocation of the ABCUSD's District offices, as well as their central kitchen and warehouse. The project would not include industrial uses and would not be subject to wastewater treatment requirements of the Regional Water quality Control Board. No mitigation is required.

#### **b) Require or result in the construction of new water or waste water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**Less Than Significant Impact.** Both sites are currently connected to the municipal water and wastewater systems. Water service is provided by CBMWD and effluent is treated by the Sanitation Districts of Los Angeles County (LACSD).

#### **Wastewater**

Both project sites, as developed, are connected to the municipal wastewater system. Local sewer lines are maintained by the City of Cerritos, while the Sanitation Districts own, operate, and maintain the large trunk sewers of the regional wastewater conveyance system. Districts 2, 3, 18, and 19 serve the City of Cerritos. The Los Coyotes Water Reclamation Plant, located within the City, has a design capacity of 37.5 million gallons per day (mgd) and currently processes an average flow of 32.2 mgd. The Joint Water Pollution Control Plant



### *3. Environmental Analysis*

---

(JWPCP) in the City of Carson has a design capacity of 385 mgd and currently processes an average flow of 326.1 mgd.

Based on generation rates of 230 gallons per day per unit, the proposed residential component of the project would generate approximately 56,810 gallons per day of wastewater. The relocation of the District office facility would not increase the amount of wastewater generated, as the facility is only being relocated and is not anticipated to add any additional staff. Therefore, the overall amount of additional wastewater would comprise less than 1 percent of the Sanitation District's total capacity. With the contribution of such a small percentage of the capacity of the facilities, construction of the proposed project would not result in the construction or expansion of existing facilities, and impacts would be less than significant. No mitigation measures are necessary.

#### **Water**

The CBMWD supplies water to the City of Cerritos, including both project sites. Each year, the CBMWD provides approximately 88,832 acre-feet of imported water to its 227-square-mile service area. The service area extends across 24 cities and unincorporated parts of Los Angeles County, serving more than two million people. The CBMWD relies on imported water from the Municipal Water District of Southern California (MWD), as well as groundwater from the Central Basin Groundwater Basin.

The City of Cerritos receives its water from two primary water sources: the CBMWD and local groundwater. The City receives its water from the CBMWD via Service Connection CEN. B-46, which is located near the intersection of Woodruff Avenue and South Street. In 2000, the City of Cerritos received approximately 1.07 billion gallons, or 26.1 percent of its total water supply, from the CBMWD, which is a member agency of MWD. MWD water is transported from the Colorado River and State Water Project in northern California.

Water distribution to consumers within the City of Cerritos is distributed through a City-owned system of pipes, which range in size from 6 inches to 30 inches in diameter. Approximately 177 miles of pipe supply water to approximately 16,000 homes, businesses, and industrial sites.

According to the City of Los Angeles CEQA Thresholds Guide, the average residential unit generates a demand for 96 gallons of water per day. Thus, the proposed project would generate the demand for approximately 23,712 gallons of water per day. The City of Cerritos General Plan EIR states that the current water system is capable of meeting the needs of the City at buildout. In addition, Cerritos has developed and implemented several water conservation and recycling efforts. No significant impacts would occur and no mitigation measures are necessary.

#### **c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

**Less Than Significant Impact.** Both projects sites would require minor modification to the existing on-site storm drain systems due to the redevelopment of both sites. Any required modifications would be minor because both sites are currently fully developed. Because the modifications would be minor in nature and the existing regional drainage system is in place and capable of handling runoff from the project site, no significant impacts would occur. No mitigation measures are necessary.

### 3. Environmental Analysis

---

**d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

**Less Than Significant Impact.** Both project sites are currently connected to the CBMWD water system, which supplies service to both existing project sites. Neither component of the project is expected to require an unusual amount of water for proposed operations.

According to the City of Los Angeles CEQA Thresholds Guide, the average residential unit generates a demand for 96 gallons of water per day. Therefore, the proposed project would generate the demand for approximately 23,712 gallons of water per day. The relocation of the District office facility would not generate an increased demand for water, as the facility would just be relocating and no additional staff would be added as a result of the project. The City of Cerritos General Plan EIR states that the current water system is capable of meeting the needs of the City at buildout. In addition, Cerritos has developed and implemented several water conservation and recycling efforts. No significant impacts would occur and no mitigation measures are necessary.

**e) Result in a determination by the waste water 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.** Both project sites are currently connected to the municipal sewer and wastewater system. The existing facilities are anticipated to have the capacity to accommodate the proposed project. The proposed project would not require expansion of any wastewater treatment facilities and would have no physical impacts related to wastewater treatment facilities. No mitigation measures are necessary.

**f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

**Less Than Significant Impact with Mitigation Incorporated.** Solid waste collected within the City of Cerritos is collected by a private contractor and is transported to the Downey Area Recycling and Transfer Station (DART). DART is a materials recovery/transfer facility that recovers recyclable materials from various cities. Residual waste is then delivered to the Puente Hills Landfill, the Commerce Refuse-to-Energy facilities, or other available landfills.

The proposed affordable senior housing community would not generate significant amounts of solid waste. According to the California Integrated Waste Management Board, the typical residential unit generates approximately 12 pounds of solid waste per day. Based on 247 units, the project would generate approximately 2,964 pounds of solid waste per day, or 540 tons per year. In 2005, Cerritos disposed a total of 81,519 tons of solid waste. Based on these numbers, the proposed project would comprise 0.5 percent of the total waste stream in the City.

The relocation of the ABCUSD office and kitchen/warehouse facilities would not contribute to an increased amount of solid waste being generated because no new staff would be added as a result of project implementation.

There are eight major landfills within Los Angeles County, serving large geographic areas. According to LACSD, there is insufficient permitted disposal capacity within the existing system to provide for the County's long-term disposal needs. The incorporation of the following mitigation measures would reduce project impacts to less than significant.



### 3. Environmental Analysis

---

#### Mitigation Measures

8. Recycling bins shall be provided by project applicants at all construction sites. All recyclable materials currently being accepted at either the landfill and/or recycling centers shall be directed for recycling at construction sites.
9. On-site recycling bins shall be required to serve the needs of the senior housing residents.

#### g) Comply with federal, state, and local statutes and regulations related to solid waste?

**No Impact.** The proposed project would comply with all federal, state, and local statutes and regulations related to solid waste. No impacts would occur as a result of project implementation and no mitigation measures are necessary.

#### 3.17 MANDATORY FINDINGS OF SIGNIFICANCE

- a) **Does the project have the potential to 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, 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.** Neither project site contains any threatened or endangered species, and the implementation of the proposed project would not impact any sensitive habitat on either site. Both project sites are completely developed, and the proposed project would not have the potential to significantly degrade the natural environment. No historical structures would be impacted and there is a low likelihood that any significant archaeological or paleontological resources would be found on the site. It is hereby found that the proposed project involves no potential for any adverse effect, either individually or cumulatively, on wildlife and cultural resources.

- 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 Impact.** As discussed in the respective issue areas of this study, the proposed project would not have cumulatively considerable environmental impacts. Any potentially significant impact would be mitigated to less than significant. The project would have no cumulatively considerable environmental impacts.

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

**Less Than Significant Impact With Mitigation Incorporated.** This Initial Study reviewed the proposed project’s potential impacts related to aesthetics, air quality, noise, health and safety, traffic, and other issues. As explained in the previous sections of the report, all potentially significant impacts would be mitigated to a level of less than significant. Therefore, the project would have no substantial adverse effects on human beings.

## 4. *References*

---

### 4.1 **PRINTED REFERENCES**

California Air Resources Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*.

CARB. 2002, September 23. EMFAC2002 Computer Model, Version 2.2.

CARB. 1990. CALINE4 Computer Model.

CARB. URBEMIS2002 Computer Model, Version 7.4.2.

California Department of Education (CDE). 1989. *School Site Approval and Selection Guide*.

California Department of Transportation (Caltrans). 1998, October. Technical Noise Supplement to the *Traffic Noise Analysis Protocol*.

Caltrans. 1991a, July 30 (released). Sound32 Noise Prediction Model.

Caltrans. 1991b, March 13. Technical Analysis Notes.

City of Cerritos. 2004. *General Plan*.

City of Cerritos. January 6, 2004. *General Plan EIR*.

County of Los Angeles Department of Public Works. June 2006. San Gabriel River Corridor Master Plan.

Kunzman Associates. May 9, 2007. Traffic Impact Analysis.

Los Angeles Regional Water Quality Control Board (LARWQCB). March 6, 2002. Fact Sheet.

LARWQCB. 2000. State of the Watershed – Report on Surface Water Quality San Gabriel River Watershed).

LARWQCB. February 23, 1995. Basin Plan.

Southern California Air Quality Management District. 1993. *CEQA Air Quality Handbook*.

Transportation Research Board (TRB). 2000. *Highway Capacity Manual*.

United States Environmental Protection Agency (USEPA). 1971. *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*.



**4.2 WEB SITES**

City of Cerritos Zoning Code. <http://www.codepublishing.com>. Accessed April 10, 2007.

Los Angeles County Regional Water Quality Control Board.  
<http://www.waterboards.ca.gov/losangeles/omages/region4hu2web.jpg>. Accessed April 4, 2007.

## 5. *List of Preparers*

---

### **LEAD AGENCY**

#### **Planning Department**

Torrey Contreras	Director of Community Development
Robert A. Lopez	Advance Planning/Redevelopment Manager

#### **Public Works Department**

Hal Arbogast	Director of Public Works
--------------	--------------------------

### **THE PLANNING CENTER**

Dwayne S. Mears, AICP	Principal, Environmental Services
Laurie Litwin	Associate Environmental Planner
Tin Cheung	Senior Environmental Scientist
Nicole Vermilion	Associate Environmental Planner (Air Quality and Noise)



## *5. List of Preparers*

---

*This page intentionally left blank.*

*Appendix A.*  
*Air Quality Modeling Information*



## *Appendix*

---

*This page intentionally left blank.*

## DEMIOLITION DEBRIS VOLUMES

Demolition	Sqft		Height	Volume Cft
Admin	56,500	Based on SQFT	12	678,000
Warehouse	24,500	Width      Length	12	294,000
Kitchen	16,500		12	198,000
<b>TOTAL on ABC Site</b>	<b>97,500</b>	312      312	12	<b>1,170,000</b>
<b>Months of Demo</b>	<b>1.0 Days</b>		22	
Based on Construction Schedule provided by the City and 22 work days per month				<b>Volume CFT</b>
<b>Volume SQft demo per day</b>			12	53,182
<b>Length/Width Demo per day</b>			67	

Soil Grading Assumes 25% of the site disturbed at any one time  
 Asphalt paving assumes 33% of the site will be paved





## ABC Project Timeline

<b><i>New District Office/Kitchen/Warehouse Facilities</i></b>	
August 2007	Begin Property Acquisition
September 2007	Close Escrow
September 2007	Design commences
February 2008	Complete Tenant Relocation
January 2008	Design complete
March 2008	Construction commences
September 2008	Construction complete
October 2008	District Move-in
<b><i>Apartments</i></b>	
July 2007	Design commences
May 2008	Design complete
January 2009	Demolition commences of existing district facilities
February 2009	Demolition complete
February 2009	Construction of apartments commences
February 2011	Construction complete
March 2011	Move-ins
<b><i>Senior Center and Pool</i></b>	
October 2010	Design commences
May 2011	Design complete
July 2011	Construction commences
June 2012	Construction complete
<b><i>Park</i></b>	
October 2010	Design commences
May 2011	Design complete
July 2011	Construction Commences
June 2012	Construction complete

Combined Summer Emissions Reports (Pounds/Day)

File Name: P:\CTS-14\AirRevised Modeling\Cerritos Affordable Housing urb9  
 Project Name: Cerritos Affordable Housing Project  
 Project Location: Orange County  
 On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006  
 Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM2.5 Dust	PM2.5 Exhaust	PM10	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	5.27	33.33	38.23	0.04	78.41	1.74	16.38	1.59	79.74	17.61	5,632.24
2009 TOTALS (lbs/day mitigated)	5.27	33.33	38.23	0.04	44.34	1.74	9.26	1.59	45.68	10.49	5,632.24
2010 TOTALS (lbs/day unmitigated)	4.94	26.55	36.10	0.04	0.17	1.62	0.06	1.48	1.78	1.54	5,631.45
2010 TOTALS (lbs/day mitigated)	4.94	26.55	36.10	0.04	0.17	1.62	0.06	1.48	1.78	1.54	5,631.45
2011 TOTALS (lbs/day unmitigated)	4.59	24.69	34.05	0.04	0.17	1.52	0.06	1.40	1.69	1.45	5,630.88
2011 TOTALS (lbs/day mitigated)	4.59	24.69	34.05	0.04	0.17	1.52	0.06	1.40	1.69	1.45	5,630.88
2012 TOTALS (lbs/day unmitigated)	33.63	22.92	33.10	0.04	0.18	1.39	0.06	1.27	1.56	1.33	5,779.21
2012 TOTALS (lbs/day mitigated)	33.63	22.92	33.10	0.04	0.18	1.39	0.06	1.27	1.56	1.33	5,779.21

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	13.63	2.59	4.35	0.00	0.01	0.01	3,247.72

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	13.53	15.92	161.87	0.18	29.87	5.77	17,672.08

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	27.16	18.51	166.22	0.18	29.88	5.78	20,919.80

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Time Slice	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
3/3/2009-3/20/2009 Number Active Days:	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Demolition 03/03/2009-03/21/2009	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Fugitive Dust	0.00	0.00	0.00	0.00	22.67	0.00	22.67	4.72	0.00	4.72	0.00
Demo Off Road Diesel	1.23	8.15	4.78	0.00	0.00	0.64	0.64	0.00	0.59	0.59	700.30
Demo On Road Diesel	1.80	25.12	9.18	0.03	0.11	1.02	1.12	0.03	0.93	0.97	3,177.94
Demo Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 3/24/2009-6/19/2009 Number Active Days:	3.21	26.52	14.03	0.00	78.41	1.34	79.74	16.38	1.23	17.61	2,371.80
Mass Grading 03/24/2009-06/20/2009	3.21	26.52	14.03	0.00	78.41	1.34	79.74	16.38	1.23	17.61	2,371.80
Mass Grading Dust	0.00	0.00	0.00	0.00	78.40	0.00	78.40	16.37	0.00	16.37	0.00
Mass Grading Off Road Diesel	3.18	26.46	12.88	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 6/23/2009-7/31/2009 Number Active Days:	3.21	26.52	14.03	0.00	35.51	1.34	36.84	7.42	1.23	8.65	2,371.80
Fine Grading 06/23/2009-08/01/2009	3.21	26.52	14.03	0.00	35.51	1.34	36.84	7.42	1.23	8.65	2,371.80
Fine Grading Dust	0.00	0.00	0.00	0.00	35.50	0.00	35.50	7.41	0.00	7.41	0.00
Fine Grading Off Road Diesel	3.18	26.46	12.88	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 6/4/2009-8/14/2009 Number Active Days: 9	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching 08/04/2009-08/15/2009	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48

Time Slice	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 8/18/2009-8/28/2009 Number Active Days:	3.65	20.50	12.68	0.01	0.03	1.61	1.63	0.01	1.48	1.49	1,969.41
Asphalt 08/18/2009-08/29/2009	3.65	20.50	12.68	0.01	0.03	1.61	1.63	0.01	1.48	1.49	1,969.41
Paving Off-Gas	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.81	16.83	9.27	0.00	0.00	1.46	1.46	0.00	1.34	1.34	1,272.04
Paving On Road Diesel	0.25	3.54	1.30	0.00	0.01	0.14	0.16	0.00	0.13	0.14	448.41
Paving Worker Trips	0.07	0.13	2.12	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.97
Time Slice 9/1/2009-12/31/2009 Number Active Days:	5.27	28.34	38.23	0.04	0.17	1.74	1.91	0.06	1.59	1.65	5,632.24
Building 09/01/2009-04/24/2012	5.27	28.34	38.23	0.04	0.17	1.74	1.91	0.06	1.59	1.65	5,632.24
Building Off Road Diesel	3.87	17.35	11.50	0.00	0.00	1.28	1.28	0.00	1.17	1.17	1,621.20
Building Vendor Trips	0.78	9.83	7.04	0.02	0.06	0.40	0.46	0.02	0.37	0.39	1,693.64
Building Worker Trips	0.62	1.17	19.69	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,317.40
Time Slice 1/1/2010-12/31/2010 Number Active Days:	4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
Building 09/01/2009-04/24/2012	4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
Building Off Road Diesel	3.65	16.55	11.20	0.00	0.00	1.19	1.19	0.00	1.10	1.10	1,621.20
Building Vendor Trips	0.73	8.94	6.57	0.02	0.06	0.36	0.42	0.02	0.33	0.35	1,693.60
Building Worker Trips	0.56	1.07	18.33	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.65
Time Slice 1/3/2011-12/30/2011 Number Active Days:	4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
Building 09/01/2009-04/24/2012	4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	0.67	8.04	6.11	0.02	0.06	0.32	0.38	0.02	0.30	0.32	1,693.58
Building Worker Trips	0.52	0.98	17.09	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.10
Time Slice 1/2/2012-2/24/2012 Number Active Days:	4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building 09/01/2009-04/24/2012	4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.62	7.15	5.66	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,693.62
Building Worker Trips	0.47	0.89	15.90	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,315.71

Time Slice	2/27/2012-4/24/2012	Number Active Days:	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
			<u>33.63</u>	<u>22.92</u>	<u>33.10</u>	<u>0.04</u>	<u>0.18</u>	<u>1.39</u>	<u>1.56</u>	<u>0.06</u>	<u>1.27</u>	<u>1.33</u>	<u>5,779.21</u>
Building	09/01/2009-04/24/2012		4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building Off Road Diesel			3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips			0.62	7.15	5.66	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,693.62
Building Worker Trips			0.47	0.99	15.90	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,315.71
Coating	02/27/2012-05/22/2012		29.40	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Architectural Coating			29.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips			0.03	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Time Slice	4/25/2012-5/22/2012	Number Active Days:	29.40	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Coating	02/27/2012-05/22/2012		29.40	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Architectural Coating			29.37	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00
Coating Worker Trips			0.03	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69

Phase Assumptions

- Phase: Demolition 3/3/2009 - 3/21/2009 - Default Demolition Description
- Building Volume Total (cubic feet): 1187300
- Building Volume Daily (cubic feet): 53985.36
- On Road Truck Travel (VMT): 749.8
- Off-Road Equipment:
  - 1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
  - 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day
  - 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day
- Phase: Fine Grading 6/23/2009 - 8/1/2009 - Default Fine Site Grading/Excavation Description
- Total Acres Disturbed: 7.1
- Maximum Daily Acreage Disturbed: 1.78
- Fugitive Dust Level of Detail: Default
- 20 lbs per acre-day
- On Road Truck Travel (VMT): 0
- Off-Road Equipment:
  - 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
  - 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
  - 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
  - 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase Assumptions (Continued)

Phase: Mass Grading 3/24/2009 - 6/20/2009 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 15.7

Maximum Daily Acreage Disturbed: 3.92

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 8/4/2009 - 8/15/2009 - Default Trenching Description

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 8/18/2009 - 8/29/2009 - Default Paving Description

Acres to be Paved: 1.78

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 1 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 1 Rollers (65 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 8/1/2009 - 4/24/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.65 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 2/27/2012 - 5/22/2012 - Default Architectural Coating Description

- Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100
- Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50
- Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250
- Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100
- Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250
- Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report  
CONSTRUCTION EMISSION ESTIMATES Summer Pounds Per Day, Mitigated

Time Slice	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 3/3/2009-3/20/2009 Number Active Days:	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Demolition 03/03/2009-03/21/2009	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Fugitive Dust	0.00	0.00	0.00	0.00	22.67	0.00	22.67	4.72	0.00	4.72	0.00
Demo Off Road Diesel	1.23	8.15	4.78	0.00	0.00	0.64	0.64	0.00	0.59	0.59	700.30
Demo On Road Diesel	1.80	25.12	9.18	0.03	0.11	1.02	1.12	0.03	0.93	0.97	3,177.94
Demo Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 3/24/2009-6/19/2009 Number Active Days:	3.21	26.52	14.03	0.00	44.34	1.34	45.68	9.26	1.23	10.49	2,371.80
Mass Grading 03/24/2009-06/20/2009	3.21	26.52	14.03	0.00	44.34	1.34	45.68	9.26	1.23	10.49	2,371.80
Mass Grading Dust	0.00	0.00	0.00	0.00	44.34	0.00	44.34	9.26	0.00	9.26	0.00
Mass Grading Off Road Diesel	3.18	26.46	12.98	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 6/23/2009-7/5/2009 Number Active Days:	3.21	26.52	14.03	0.00	20.08	1.34	21.42	4.19	1.23	5.43	2,371.80
Fine Grading 06/23/2009-08/01/2009	3.21	26.52	14.03	0.00	20.08	1.34	21.42	4.19	1.23	5.43	2,371.80
Fine Grading Dust	0.00	0.00	0.00	0.00	20.08	0.00	20.08	4.19	0.00	4.19	0.00
Fine Grading Off Road Diesel	3.18	26.46	12.98	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 8/4/2009-8/14/2009 Number Active Days: 9	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching 08/04/2009-08/15/2009	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48

Time Slice	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 8/18/2009-8/28/2009 Number Active Days:	3.65	20.50	12.68	0.01	0.03	1.81	1.63	0.01	1.48	1.49	1,969.41
Asphalt 08/18/2009-09/29/2009	3.65	20.50	12.68	0.01	0.03	1.81	1.63	0.01	1.48	1.49	1,969.41
Paving Off-Gas	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.81	16.83	9.27	0.00	0.00	1.46	1.46	0.00	1.34	0.00	1,272.04
Paving On Road Diesel	0.25	3.54	1.30	0.00	0.01	0.14	0.16	0.00	0.13	0.14	448.41
Paving Worker Trips	0.07	0.13	2.12	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.97
Time Slice 9/1/2009-12/31/2009 Number Active Days:	5.27	28.34	38.23	0.04	0.17	1.74	1.91	0.06	1.59	1.65	5,632.24
Building 09/01/2009-04/24/2012	5.27	28.34	38.23	0.04	0.17	1.74	1.91	0.06	1.59	1.65	5,632.24
Building Off Road Diesel	3.87	17.35	11.50	0.00	0.00	1.28	1.28	0.00	1.17	1.17	1,621.20
Building Vendor Trips	0.78	9.83	7.04	0.02	0.06	0.40	0.46	0.02	0.37	0.39	1,693.64
Building Worker Trips	0.62	1.17	19.69	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,317.40
Time Slice 1/1/2010-12/31/2010 Number Active Days:	4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
Building 09/01/2009-04/24/2012	4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
Building Off Road Diesel	3.65	16.55	11.20	0.00	0.00	1.19	1.19	0.00	1.10	1.10	1,621.20
Building Vendor Trips	0.73	8.94	6.57	0.02	0.06	0.36	0.42	0.02	0.33	0.35	1,693.60
Building Worker Trips	0.56	1.07	18.33	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.66
Time Slice 1/3/2011-12/30/2011 Number Active Days:	4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
Building 09/01/2009-04/24/2012	4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	0.67	8.04	6.11	0.02	0.06	0.32	0.38	0.02	0.30	0.32	1,693.58
Building Worker Trips	0.52	0.98	17.09	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.10
Time Slice 1/2/2012-2/24/2012 Number Active Days:	4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building 09/01/2009-04/24/2012	4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.62	7.15	5.66	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,693.62
Building Worker Trips	0.47	0.89	15.90	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,315.71

Time Slice	2/27/2012-4/24/2012	Number Active Days:	ROG	NOX	CQ	SO2	PM10 Dust	PM10 Exhaust	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
			33.63	22.92	33.10	0.04	0.18	1.39	0.06	1.27	1.33	5,779.21
Building	09/01/2009-04/24/2012		4.22	22.86	32.08	0.04	0.17	1.38	0.06	1.27	1.33	5,630.52
Building Off Road Diesel			3.14	14.81	10.52	0.00	0.00	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips			0.62	7.15	5.66	0.02	0.06	0.28	0.02	0.26	0.28	1,693.62
Building Worker Trips			0.47	0.89	15.90	0.02	0.11	0.06	0.04	0.05	0.09	2,315.71
Coating	02/27/2012-05/22/2012		29.40	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	148.69
Architectural Coating			29.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips			0.03	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	148.69
Time Slice	4/25/2012-5/22/2012	Number Active Days:	29.40	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	148.69
Coating	02/27/2012-05/22/2012		29.40	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	148.69
Architectural Coating			29.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00
Coating Worker Trips			0.03	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	148.69

**Construction Related Mitigation Measures**

1 The following mitigation measures apply to Phase: Fine Grading 6/23/2009 - 8/1/2009 - Default Fine Site Grading/Excavation Description

1 For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

2 The following mitigation measures apply to Phase: Mass Grading 3/24/2009 - 6/20/2009 - Default Mass Site Grading/Excavation Description

2 For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

**Area Source Unmitigated Detail Report:**

**AREA SOURCE EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated**

Source	ROG	NOX	CQ	SO2	PM10	PM2.5	CO2
Natural Gas	0.20	2.55	1.14	0.00	0.00	0.00	3,242.22
Hearth - No Summer Emissions							
Landscape	0.26	0.04	3.21	0.00	0.01	0.01	5.50
Consumer Products	12.67						
Architectural Coatings	0.50						
<b>TOTALS (lbs/day, Unmitigated)</b>	<b>13.63</b>	<b>2.59</b>	<b>4.35</b>	<b>0.00</b>	<b>0.01</b>	<b>0.01</b>	<b>3,247.72</b>

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%  
 Percentage of residences with wood fireplaces changed from 5% to 0%  
 Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report

OPERATIONAL EMISSION ESTIMATES Summer Pounds Per Day, Unmitigated

Source	ROG	NOX	CO	SO2	PM10	PM25	CO2
Apartments mid rise	11.65	13.43	137.51	0.15	25.21	4.87	14,936.42
Racquetball/health	1.88	2.49	24.36	0.03	4.66	0.90	2,735.66
<b>TOTALS (lbs/day, unmitigated)</b>	<b>13.53</b>	<b>15.92</b>	<b>161.87</b>	<b>0.18</b>	<b>29.87</b>	<b>5.77</b>	<b>17,672.08</b>

Operational Settings:

Does not include correction for passby trips  
 Does not include double counting adjustment for internal trips  
 Analysis Year: 2011 Temperature (F): 60 Season: Summer  
 Emtfac: Version : Emtfac2007.V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Apartments mid rise	6.50	5.86	dwelling units	247.00	1,447.42	14,623.00
Racquetball/health		22.88	1000 sq ft	13.00	297.44	2,701.50
					1,744.86	17,324.50

A-1 Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.3	0.8	99.0	0.2
Light Truck < 3750 lbs	7.0	1.4	96.7	2.9
Light Truck 3751-5750 lbs	23.9	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.2	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	2.9	62.1	37.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

	Residential			Commercial	
	Home-Work	Home-Shop	Home-Other	Commute	Non-Work
Urban Trip Length (miles)	12.7	7.0	9.5	13.3	7.4
Rural Trip Length (miles)	17.6	12.1	14.9	15.4	9.6
Trip speeds (mph)	30.0	30.0	30.0	30.0	30.0
% of Trips - Residential	32.9	18.0	49.1		

% of Trips - Commercial (by land use)  
 Racquetball/health 6.0 2.5 92.5

Operational Changes to Defaults

File Name: P:\CTS-14\AirRevised Modeling\Cerritos Affordable Housing.urb9  
 Project Name: Cerritos Affordable Housing Project  
 Project Location: Orange County  
 On-Road Vehicle Emissions Based on: Version : Emfac2007 V2.3 Nov 1 2006  
 Off-Road Vehicle Emissions Based on: OFFROAD2007

Summary Report:

CONSTRUCTION EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
2009 TOTALS (lbs/day unmitigated)	5.27	33.33	38.23	0.04	78.41	1.74	79.74	16.38	1.59	17.61	5,632.24
2009 TOTALS (lbs/day mitigated)	5.27	33.33	38.23	0.04	44.34	1.74	45.68	9.26	1.59	10.49	5,632.24
2010 TOTALS (lbs/day unmitigated)	4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
2010 TOTALS (lbs/day mitigated)	4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
2011 TOTALS (lbs/day unmitigated)	4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
2011 TOTALS (lbs/day mitigated)	4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
2012 TOTALS (lbs/day unmitigated)	33.63	22.92	33.10	0.04	0.18	1.39	1.56	0.06	1.27	1.33	5,779.21
2012 TOTALS (lbs/day mitigated)	33.63	22.92	33.10	0.04	0.18	1.39	1.56	0.06	1.27	1.33	5,779.21

AREA SOURCE EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	13.46	3.92	1.72	0.01	0.11	0.11	4,985.75

OPERATIONAL (VEHICLE) EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	14.28	19.34	154.64	0.15	29.87	5.77	15,969.54

SUM OF AREA SOURCE AND OPERATIONAL EMISSION ESTIMATES

	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
TOTALS (lbs/day, unmitigated)	27.73	23.26	156.36	0.16	29.98	5.88	20,955.29

Construction Unmitigated Detail Report:

CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Time Slice	ROG	NOx	CO	SO2	PM10.Dust	PM10.Exhaust	PM10	PM2.5.Dust	PM2.5.Exhaust	PM2.5	CO2
Time Slice 3/3/2009-3/20/2009 Number Active Days:	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Demolition 03/03/2009-03/21/2009	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Fugitive Dust	0.00	0.00	0.00	0.00	22.67	0.00	22.67	4.72	0.00	4.72	0.00
Demo Off Road Diesel	1.23	8.15	4.78	0.00	0.00	0.64	0.64	0.00	0.59	0.59	700.30
Demo On Road Diesel	1.80	25.12	9.18	0.03	0.11	1.02	1.12	0.03	0.93	0.97	3,177.94
Demo Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 3/24/2009-6/19/2009 Number Active Days:	3.21	26.52	14.03	0.00	78.41	1.34	79.74	16.38	1.23	17.61	2,371.80
Mass Grading 03/24/2009-06/20/2009	3.21	26.52	14.03	0.00	78.41	1.34	79.74	16.38	1.23	17.61	2,371.80
Mass Grading Dust	0.00	0.00	0.00	0.00	78.40	0.00	78.40	16.37	0.00	16.37	0.00
Mass Grading Off Road Diesel	3.18	26.46	12.98	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 6/23/2009-7/31/2009 Number Active Days:	3.21	26.52	14.03	0.00	35.51	1.34	36.84	7.42	1.23	8.65	2,371.80
Fine Grading 06/23/2009-08/01/2009	3.21	26.52	14.03	0.00	35.51	1.34	36.84	7.42	1.23	8.65	2,371.80
Fine Grading Dust	0.00	0.00	0.00	0.00	35.50	0.00	35.50	7.41	0.00	7.41	0.00
Fine Grading Off Road Diesel	3.18	26.46	12.98	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 8/4/2009-8/14/2009 Number Active Days: 9	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching 08/04/2009-08/15/2009	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.64
Trenching Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 8/18/2009-8/28/2009 Number Active Days:	3.65	20.50	12.68	0.01	0.03	1.61	1.63	0.01	1.48	1.49	1,969.41
Asphalt 08/18/2009-08/29/2009	3.65	20.50	12.68	0.01	0.03	1.61	1.63	0.01	1.48	1.49	1,969.41
Paving Off-Gas	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.81	16.83	9.27	0.00	0.00	1.46	1.46	0.00	1.34	1.34	1,272.04
Paving On Road Diesel	0.25	3.54	1.30	0.00	0.01	0.14	0.16	0.00	0.13	0.14	448.41
Paving Worker Trips	0.07	0.13	2.12	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.97

Time Slice 9/1/2009-12/31/2009 Number Active Days:

Building 09/01/2009-04/24/2012

Building Off Road Diesel  
 Building Vendor Trips  
 Building Worker Trips

ROG	NOx	CO	SO2	PM10.Dust	PM10.Exhaust	PM10	PM2.5.Dust	PM2.5.Exhaust	PM2.5	CO2
5.27	28.34	38.23	0.04	0.17	1.74	1.91	0.06	1.59	1.65	5,632.24
5.27	28.34	38.23	0.04	0.17	1.74	1.91	0.06	1.59	1.65	5,632.24
3.87	17.35	11.50	0.00	0.00	1.28	1.28	0.00	1.17	1.17	1,621.20
0.78	9.83	7.04	0.02	0.06	0.40	0.46	0.02	0.37	0.39	1,693.64
0.62	1.17	19.89	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,317.40

Time Slice 1/1/2010-12/31/2010 Number Active Days:

Building 09/01/2009-04/24/2012

Building Off Road Diesel  
 Building Vendor Trips  
 Building Worker Trips

ROG	NOx	CO	SO2	PM10.Dust	PM10.Exhaust	PM10	PM2.5.Dust	PM2.5.Exhaust	PM2.5	CO2
4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
3.65	16.55	11.20	0.00	0.00	1.19	1.19	0.00	1.10	1.10	1,621.20
0.73	8.94	6.57	0.02	0.06	0.36	0.42	0.02	0.33	0.35	1,693.60
0.56	1.07	18.33	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.86

Time Slice 1/3/2011-12/30/2011 Number Active Days:

Building 09/01/2009-04/24/2012

Building Off Road Diesel  
 Building Vendor Trips  
 Building Worker Trips

ROG	NOx	CO	SO2	PM10.Dust	PM10.Exhaust	PM10	PM2.5.Dust	PM2.5.Exhaust	PM2.5	CO2
4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
0.67	8.04	6.11	0.02	0.06	0.32	0.38	0.02	0.30	0.32	1,693.58
0.52	0.98	17.09	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.10

Time Slice 1/2/2012-2/24/2012 Number Active Days:

Building 09/01/2009-04/24/2012

Building Off Road Diesel  
 Building Vendor Trips  
 Building Worker Trips

ROG	NOx	CO	SO2	PM10.Dust	PM10.Exhaust	PM10	PM2.5.Dust	PM2.5.Exhaust	PM2.5	CO2
4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
0.62	7.15	5.66	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,693.62
0.47	0.89	15.90	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,315.71

Time Slice 2/27/2012-4/24/2012 Number Active Days:

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
	<u>33.63</u>	<u>22.92</u>	<u>33.10</u>	<u>0.04</u>	<u>0.18</u>	<u>1.39</u>	<u>1.56</u>	<u>0.06</u>	<u>1.27</u>	<u>1.33</u>	<u>5,779.21</u>
Building 09/01/2009-04/24/2012	4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.62	7.15	5.66	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,693.62
Building Worker Trips	0.47	0.89	15.90	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,315.71
Coating 02/27/2012-05/22/2012	29.40	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Architectural Coating	29.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Time Slice 4/25/2012-5/22/2012 Number Active Days:	29.40	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Coating 02/27/2012-05/22/2012	29.40	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Architectural Coating	29.37	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69

**A**

Phase Assumptions

- Phase: Demolition 3/3/2009 - 3/21/2009 - Default Demolition Description
- Building Volume Total (cubic feet): 1187300
- Building Volume Daily (cubic feet): 53985.36
- On Road Truck Travel (VMT): 749.8
- Off-Road Equipment:
- 1 Concrete/Industrial Saws (10 hp) operating at a 0.73 load factor for 8 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 1 hours per day
- 2 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 6 hours per day

- Phase: Fine Grading 6/23/2009 - 8/1/2009 - Default Fine Site Grading/Excavation Description
- Total Acres Disturbed: 7.1
- Maximum Daily Acreage Disturbed: 1.78
- Fugitive Dust Level of Detail: Default
- 20 lbs per acre-day
- On Road Truck Travel (VMT): 0
- Off-Road Equipment:
- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase Assumptions (Continued)

Phase: Mass Grading 3/24/2009 - 6/20/2009 - Default Mass Site Grading/Excavation Description

Total Acres Disturbed: 15.7

Maximum Daily Acreage Disturbed: 3.92

Fugitive Dust Level of Detail: Default

20 lbs per acre-day

On Road Truck Travel (VMT): 0

Off-Road Equipment:

- 1 Graders (174 hp) operating at a 0.61 load factor for 6 hours per day
- 1 Rubber Tired Dozers (357 hp) operating at a 0.59 load factor for 6 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day
- 1 Water Trucks (189 hp) operating at a 0.5 load factor for 8 hours per day

Phase: Trenching 8/4/2009 - 8/15/2009 - Default Trenching Description

Off-Road Equipment:

- 2 Excavators (168 hp) operating at a 0.57 load factor for 8 hours per day
- 1 Other General Industrial Equipment (238 hp) operating at a 0.51 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 0 hours per day

Phase: Paving 8/18/2009 - 8/29/2009 - Default Paving Description

Acres to be Paved: 1.78

Off-Road Equipment:

- 4 Cement and Mortar Mixers (10 hp) operating at a 0.56 load factor for 6 hours per day
- 4 Pavers (100 hp) operating at a 0.62 load factor for 7 hours per day
- 1 Paving Equipment (104 hp) operating at a 0.53 load factor for 8 hours per day
- 1 Rollers (95 hp) operating at a 0.56 load factor for 7 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 7 hours per day

Phase: Building Construction 9/1/2009 - 4/24/2012 - Default Building Construction Description

Off-Road Equipment:

- 1 Cranes (399 hp) operating at a 0.43 load factor for 6 hours per day
- 2 Forklifts (145 hp) operating at a 0.3 load factor for 6 hours per day
- 1 Generator Sets (49 hp) operating at a 0.74 load factor for 8 hours per day
- 1 Tractors/Loaders/Backhoes (108 hp) operating at a 0.55 load factor for 8 hours per day
- 3 Welders (45 hp) operating at a 0.45 load factor for 8 hours per day

Phase: Architectural Coating 2/27/2012 - 5/22/2012 - Default Architectural Coating Description

Rule: Residential Interior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 100

Rule: Residential Interior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 50

Rule: Residential Exterior Coatings begins 1/1/2005 ends 6/30/2008 specifies a VOC of 250

Rule: Residential Exterior Coatings begins 7/1/2008 ends 12/31/2040 specifies a VOC of 100

Rule: Nonresidential Interior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Rule: Nonresidential Exterior Coatings begins 1/1/2005 ends 12/31/2040 specifies a VOC of 250

Construction Mitigated Detail Report:  
CONSTRUCTION EMISSION ESTIMATES Winter Pounds Per Day, Mitigated

Time Slice	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 3/3/2009-3/20/2009 Number Active Days: 8/10/2007 10:41:13 AM	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Demolition 03/03/2009-03/21/2009	3.07	33.33	15.03	0.03	22.79	1.66	24.44	4.75	1.53	6.28	4,002.72
Fugitive Dust	0.00	0.00	0.00	0.00	22.67	0.00	22.67	4.72	0.00	4.72	0.00
Demo Off Road Diesel	1.23	8.15	4.78	0.00	0.00	0.64	0.64	0.00	0.59	0.59	700.30
Demo On Road Diesel	1.80	25.12	9.18	0.03	0.11	1.02	1.12	0.03	0.93	0.97	3,177.94
Demo Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 3/24/2009-6/19/2009 Number Active Days: 45.68	3.21	26.52	14.03	0.00	44.34	1.34	45.68	9.25	1.23	10.49	2,371.80
Mass Grading 03/24/2009-06/20/2009	3.21	26.52	14.03	0.00	44.34	1.34	45.68	9.25	1.23	10.49	2,371.80
Mass Grading Dust	0.00	0.00	0.00	0.00	44.34	0.00	44.34	9.26	0.00	9.26	0.00
Mass Grading Off Road Diesel	3.18	26.46	12.98	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Mass Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mass Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 6/23/2009-7/31/2009 Number Active Days: 21.42	3.21	26.52	14.03	0.00	20.08	1.34	21.42	4.19	1.23	5.43	2,371.80
Fine Grading 06/23/2009-08/01/2009	3.21	26.52	14.03	0.00	20.08	1.34	21.42	4.19	1.23	5.43	2,371.80
Fine Grading Dust	0.00	0.00	0.00	0.00	20.08	0.00	20.08	4.19	0.00	4.19	0.00
Fine Grading Off Road Diesel	3.18	26.46	12.98	0.00	0.00	1.33	1.33	0.00	1.23	1.23	2,247.32
Fine Grading On Road Diesel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fine Grading Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 8/4/2009-8/14/2009 Number Active Days: 9	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching 08/04/2009-08/15/2009	2.21	18.96	9.38	0.00	0.01	0.93	0.94	0.00	0.86	0.86	1,839.12
Trenching Off Road Diesel	2.18	18.90	8.32	0.00	0.00	0.93	0.93	0.00	0.86	0.86	1,714.54
Trenching Worker Trips	0.03	0.06	1.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	124.48
Time Slice 8/18/2009-8/28/2009 Number Active Days: 10.49	3.65	20.50	12.68	0.01	0.03	1.61	1.63	0.01	1.48	1.49	1,969.41
Asphalt 08/18/2009-08/29/2009	3.65	20.50	12.68	0.01	0.03	1.61	1.63	0.01	1.48	1.49	1,969.41
Paving Off-Gas	0.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving Off Road Diesel	2.81	16.83	9.27	0.00	0.00	1.46	1.46	0.00	1.34	1.34	1,272.04
Paving On Road Diesel	0.25	3.54	1.30	0.00	0.01	0.14	0.16	0.00	0.13	0.14	448.41
Paving Worker Trips	0.07	0.13	2.12	0.00	0.01	0.01	0.02	0.00	0.01	0.01	248.97

Time Slice	ROG	NOX	CO	SO2	PM10 Dust	PM10 Exhaust	PM10	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Time Slice 9/1/2009-12/31/2009 Number Active Days:	<u>5.27</u>	<u>28.34</u>	<u>38.23</u>	<u>0.04</u>	<u>0.17</u>	<u>1.74</u>	<u>1.91</u>	<u>0.06</u>	<u>1.59</u>	<u>1.65</u>	<u>5,632.24</u>
Building 09/01/2009-04/24/2012	5.27	28.34	38.23	0.04	0.17	1.74	1.91	0.06	1.59	1.65	5,632.24
Building Off Road Diesel	3.87	17.35	11.50	0.00	0.00	1.28	1.28	0.00	1.17	1.17	1,621.20
Building Vendor Trips	0.78	9.93	7.04	0.02	0.06	0.40	0.46	0.02	0.37	0.39	1,693.64
Building Worker Trips	0.62	1.17	19.69	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,317.40
Time Slice 1/1/2010-12/31/2010 Number Active Days:	<u>4.94</u>	<u>26.55</u>	<u>36.10</u>	<u>0.04</u>	<u>0.17</u>	<u>1.62</u>	<u>1.78</u>	<u>0.06</u>	<u>1.48</u>	<u>1.54</u>	<u>5,631.45</u>
Building 09/01/2009-04/24/2012	4.94	26.55	36.10	0.04	0.17	1.62	1.78	0.06	1.48	1.54	5,631.45
Building Off Road Diesel	3.65	16.55	11.20	0.00	0.00	1.19	1.19	0.00	1.10	1.10	1,621.20
Building Vendor Trips	0.73	8.94	6.57	0.02	0.06	0.36	0.42	0.02	0.33	0.35	1,693.60
Building Worker Trips	0.56	1.07	18.33	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.66
Time Slice 1/3/2011-12/30/2011 Number Active Days:	<u>4.58</u>	<u>24.69</u>	<u>34.05</u>	<u>0.04</u>	<u>0.17</u>	<u>1.52</u>	<u>1.69</u>	<u>0.06</u>	<u>1.40</u>	<u>1.45</u>	<u>5,630.88</u>
Building 09/01/2009-04/24/2012	4.58	24.69	34.05	0.04	0.17	1.52	1.69	0.06	1.40	1.45	5,630.88
Building Off Road Diesel	3.39	15.67	10.85	0.00	0.00	1.14	1.14	0.00	1.05	1.05	1,621.20
Building Vendor Trips	0.67	8.04	6.11	0.02	0.06	0.32	0.38	0.02	0.30	0.32	1,693.58
Building Worker Trips	0.52	0.98	17.09	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,316.10
Time Slice 1/2/2012-2/24/2012 Number Active Days:	<u>4.22</u>	<u>22.86</u>	<u>32.08</u>	<u>0.04</u>	<u>0.17</u>	<u>1.38</u>	<u>1.55</u>	<u>0.06</u>	<u>1.27</u>	<u>1.33</u>	<u>5,630.52</u>
Building 09/01/2009-04/24/2012	4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.62	7.15	5.66	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,693.62
Building Worker Trips	0.47	0.89	15.90	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,315.71
Time Slice 2/27/2012-4/24/2012 Number Active Days:	<u>33.63</u>	<u>22.82</u>	<u>33.10</u>	<u>0.04</u>	<u>0.18</u>	<u>1.39</u>	<u>1.56</u>	<u>0.06</u>	<u>1.27</u>	<u>1.33</u>	<u>5,779.21</u>
Building 09/01/2009-04/24/2012	4.22	22.86	32.08	0.04	0.17	1.38	1.55	0.06	1.27	1.33	5,630.52
Building Off Road Diesel	3.14	14.81	10.52	0.00	0.00	1.04	1.04	0.00	0.95	0.95	1,621.20
Building Vendor Trips	0.62	7.15	5.66	0.02	0.06	0.28	0.34	0.02	0.26	0.28	1,693.62
Building Worker Trips	0.47	0.89	15.90	0.02	0.11	0.06	0.17	0.04	0.05	0.09	2,315.71
Coating 02/27/2012-05/22/2012	29.40	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69
Architectural Coating	29.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Coating Worker Trips	0.03	0.06	1.02	0.00	0.01	0.00	0.01	0.00	0.00	0.01	148.69

Time Slice 4/25/2012-5/22/2012 Number Active Days:

	ROG	NOx	CO	SO2	PM10 Dust	PM10 Exhaust	PM2.5 Dust	PM2.5 Exhaust	PM2.5	CO2
Coating 02/27/2012-05/22/2012	29.40	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	148.69
Architectural Coating	29.37	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	148.69
Coating Worker Trips	0.03	0.06	1.02	0.00	0.01	0.00	0.00	0.00	0.01	0.00

Construction Related Mitigation Measures

The following mitigation measures apply to Phase: Fine Grading 6/23/2009 - 8/1/2009 - Default Fine Site Grading/Excavation Description  
For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

The following mitigation measures apply to Phase: Mass Grading 3/24/2009 - 6/20/2009 - Default Mass Site Grading/Excavation Description  
For Soil Stabilizing Measures, the Water exposed surfaces 2x daily watering mitigation reduces emissions by:

PM10: 55% PM25: 55%

Area Source Unmitigated Detail Report:

AREA SOURCE EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM2.5	CO2
Natural Gas	0.20	2.55	1.14	0.00	0.00	0.00	3,242.22
Hearth	0.08	1.37	0.58	0.01	0.11	0.11	1,743.53
Landscaping - No Winter Emissions	12.67						
Consumer Products	0.50						
Architectural Coatings	13.45	3.92	1.72	0.01	0.11	0.11	4,985.75
<b>TOTALS (lbs/day, unmitigated)</b>							

Area Source Changes to Defaults

Percentage of residences with wood stoves changed from 10% to 0%  
Percentage of residences with wood fireplaces changed from 5% to 0%  
Percentage of residences with natural gas fireplaces changed from 85% to 100%

Operational Unmitigated Detail Report:

OPERATIONAL EMISSION ESTIMATES Winter Pounds Per Day, Unmitigated

Source	ROG	NOx	CO	SO2	PM10	PM25	CO2
Apartments mid rise	12.18	16.32	131.23	0.13	25.21	4.87	13,499.37
Racquetball/health	2.10	3.02	23.41	0.02	4.66	0.90	2,470.17
<b>TOTALS (lbs/day, unmitigated)</b>	14.28	19.34	154.64	0.15	29.87	5.77	15,969.54

Operational Settings:

Does not include correction for passby trips  
Does not include double counting adjustment for internal trips  
Analysis Year: 2011 Temperature (F): 60 Season: Winter  
Emfac: Version : Emfac2007 V2.3 Nov 1 2006

Summary of Land Uses

Land Use Type	Acreeage	Trip Rate	Unit Type	No. Units	Total Trips	Total VMT
Apartments mid rise	6.50	5.86	dwelling units	247.00	1,447.42	14,623.00
Racquetball/health		22.88	1000 sq ft	13.00	297.44	2,701.50
					1,744.86	17,324.50

Vehicle Fleet Mix

Vehicle Type	Percent Type	Non-Catalyst	Catalyst	Diesel
Light Auto	51.3	0.8	99.0	0.2
Light Truck < 3750 lbs	7.0	1.4	95.7	2.9
Light Truck 3751-5750 lbs	23.9	0.4	99.6	0.0
Med Truck 5751-8500 lbs	10.7	0.9	99.1	0.0
Lite-Heavy Truck 8501-10,000 lbs	1.6	0.0	81.2	18.8
Lite-Heavy Truck 10,001-14,000 lbs	0.5	0.0	60.0	40.0
Med-Heavy Truck 14,001-33,000 lbs	0.9	0.0	22.2	77.8
Heavy-Heavy Truck 33,001-60,000 lbs	0.2	0.0	0.0	100.0
Other Bus	0.1	0.0	0.0	100.0
Urban Bus	0.0	0.0	0.0	0.0
Motorcycle	2.9	62.1	37.9	0.0
School Bus	0.1	0.0	0.0	100.0
Motor Home	0.8	0.0	87.5	12.5

Travel Conditions

Home-Work	Home-Shop	Home-Other	Commute	Commercial	Customer
12.7	7.0	9.5	13.3	7.4	8.9
17.6	12.1	14.9	15.4	9.6	12.6
30.0	30.0	30.0	30.0	30.0	30.0
32.9	18.0	49.1			

Operational Changes to Defaults

% of Trips - Commercial (by land use)	5.0	2.5	92.5
Racquetball/health			

*Appendix B.*  
*Noise Modeling Information*



## *Appendix*

---

This page intentionally left blank.

**Federal Highway Administration Highway Traffic Noise Prediction Model  
Cerritos Affordable Housing and ABC School District Office Relocation Project**

Roadway Segment	24-hour Traffic Volume						Distance to CNEL from Roadway Centerline												Noise Level (CNEL or Ldn) at Distance from Roe Centerline						Change From Existing
	Existing			Future Without Project			Future With Project			Existing				Future No Project				Future With Project							
	50.0	60	65	70	70	70	50.0	60	65	70	50.0	60	65	70	50.0	60	65	70	50.0	60	65	70			
	Feet	CNEL	CNEL	CNEL	CNEL	CNEL	Feet	CNEL	CNEL	CNEL	Feet	CNEL	CNEL	CNEL	Feet	CNEL	CNEL	CNEL	Feet	CNEL	CNEL	CNEL			
Alondra Boulevard	45	18,900	19,000	19,100	19,100	19,100	74.0	431	200	93	74.1	432	201	93	74.1	434	201	93	74.1	434	201	93	0.0		
	45	20,500	20,600	20,700	20,700	20,700	74.4	455	211	98	74.4	456	212	98	74.4	458	212	99	74.4	458	212	99	0.0		
	35	11,500	11,600	11,700	11,700	11,700	70.0	231	107	50	70.0	232	108	50	70.0	233	108	50	70.0	233	108	50	0.1		
	35	11,000	11,100	11,300	11,300	11,300	69.8	224	104	48	69.8	225	105	49	69.9	228	106	49	69.9	228	106	49	0.1		
166th Street	40	14,200	14,300	14,400	14,400	14,400	71.9	309	143	67	71.9	310	144	67	71.9	312	145	67	71.9	312	145	67	0.1		
	40	12,200	12,300	12,400	12,400	12,400	71.2	279	130	60	71.2	281	130	60	71.3	282	131	61	71.3	282	131	61	0.1		
	45	7,500	7,500	8,400	8,400	8,400	70.0	233	108	50	70.0	233	108	50	70.5	251	116	54	70.5	251	116	54	0.5		
	35	2,000	2,000	2,000	2,000	2,000	62.4	72	33	15	62.4	72	33	15	62.4	72	33	15	62.4	72	33	15	0.0		
Cuesta Drive	45	4,300	4,300	4,300	4,300	4,300	67.6	161	75	35	67.6	161	75	35	67.6	161	75	35	67.6	161	75	35	0.0		
	40	21,900	22,000	22,000	22,000	22,000	73.7	412	191	89	73.8	414	192	89	73.8	414	192	89	73.8	414	192	89	0.0		
	40	21,000	21,100	21,200	21,200	21,200	73.6	401	186	86	73.6	402	187	87	73.6	404	187	87	73.6	404	187	87	0.0		
	40	23,000	23,100	23,200	23,200	23,200	74.0	426	198	92	74.0	427	198	92	74.0	429	199	92	74.0	429	199	92	0.0		
Park Plaza Drive	40	25,100	25,300	25,400	25,400	25,400	74.3	452	210	97	74.4	454	211	98	74.4	455	211	98	74.4	455	211	98	0.1		
	40	23,300	23,400	23,500	23,500	23,500	74.0	430	199	93	74.0	431	200	93	74.1	432	201	93	74.1	432	201	93	0.0		
	40	9,900	10,000	10,000	10,000	10,000	70.3	243	113	52	70.3	245	113	53	70.3	245	113	53	70.3	245	113	53	0.0		
	40	11,600	11,700	11,700	11,700	11,700	71.0	270	125	58	71.0	272	126	58	71.0	272	126	58	71.0	272	126	58	0.0		
Norwalk Boulevard	45	14,600	14,700	14,800	14,800	14,800	72.9	363	168	78	72.9	364	169	78	73.0	366	170	79	73.0	366	170	79	0.1		
	45	16,900	17,000	17,200	17,200	17,200	73.5	400	186	86	73.6	401	186	86	73.6	404	188	87	73.6	404	188	87	0.1		
	45	19,500	19,600	20,100	20,100	20,100	74.2	440	204	95	74.2	441	205	95	74.3	449	208	97	74.3	449	208	97	0.1		
	45	22,200	22,300	22,900	22,900	22,900	74.7	480	223	103	74.7	481	223	104	74.9	490	227	105	74.9	490	227	105	0.1		
Bloomfield Avenue	45	19,400	19,500	19,700	19,700	19,700	74.1	438	203	94	74.2	440	204	95	74.2	443	206	95	74.2	443	206	95	0.1		
	45	18,900	19,000	19,100	19,100	19,100	74.0	431	200	93	74.1	432	201	93	74.1	434	201	93	74.1	434	201	93	0.0		
	40	18,000	18,100	18,100	18,100	18,100	72.9	362	168	78	72.9	363	169	78	72.9	363	169	78	72.9	363	169	78	0.0		
	40	22,400	22,500	22,600	22,600	22,600	73.8	419	194	90	73.9	420	195	90	73.9	421	195	91	73.9	421	195	91	0.0		
Shoemaker Avenue	40	22,300	22,400	23,500	23,500	23,500	73.8	417	194	90	73.8	419	194	90	74.1	432	201	93	74.1	432	201	93	0.2		
	40	21,800	21,900	22,000	22,000	22,000	73.7	411	191	89	73.7	412	191	89	73.8	414	192	89	73.8	414	192	89	0.0		
	45	13,300	13,400	13,400	13,400	13,400	72.5	341	158	73	72.5	342	159	74	72.5	342	159	74	72.5	342	159	74	0.0		
	45	15,800	15,900	15,900	15,900	15,900	73.3	382	177	82	73.3	384	178	83	73.3	384	178	83	73.3	384	178	83	0.0		
Park Plaza Drive	45	16,500	16,600	16,600	16,600	16,600	73.4	393	183	85	73.5	395	183	85	73.5	395	183	85	73.5	395	183	85	0.0		
	45	15,100	15,200	15,200	15,200	15,200	73.1	371	172	80	73.1	372	173	80	73.1	372	173	80	73.1	372	173	80	0.0		
	45	8,600	8,700	8,700	8,700	8,700	70.6	255	118	55	70.7	257	119	55	70.7	257	119	55	70.7	257	119	55	0.1		
	45	8,600	8,700	8,700	8,700	8,700	4.8	0	0	0	4.8	0	0	0	4.8	0	0	0	4.8	0	0	0	0.0		



**Interior/Exterior Noise Levels at Proposed Noise-Sensitive Uses  
Cerritos Affordable Housing and ABC School District Relocation Project**

Noise Compatibility for:	Exterior Noise Levels @50 Feet	Proposed distance from Centerline	Calculated Exterior Noise Levels	Calculated Interior CNEL (Windows Open - 12 dB reduction)(1)	Calculated Interior CNEL (Windows Closed - 24 dBA Reduction)(1)	Required STC-Rating to meet 45 dBA CNEL
Residential Units Facing 166th Street	69.9	149	63	50.8	38.8	
Residential Units Facing Norwalk Boulevard	74.3	165	67	54.5	42.5	
Park on Cuesta Drive	70.5	244	60	NA	NA	
Residential Units Facing 166th Street closer	69.9	68	68	55.9	43.9	

1. Interior noise reduction from a windows-open and windows-closed condition based on: Society of Automotive Engineers, Inc., *House Noise - Reduction Measurements for Use in Studies of Aircraft Flyover Noise*, AIR 1081, October 1971.

**Noise Levels at Residences adjacent to the Park - Cerritos Affordable Housing and ABC School District Relocation**

	Initial Sound Pressure Level	Initial number of noise sources	New number of noise sources	Adjusted SPL	Measurement Distance	Hard (0) or Soft Site (0.5)	New Distance	New Noise Level
Soccer Field	57	17	50	61.7	50	0.5	130	49.2
Playground Equipment	63.6	20	50	67.6	6	0	230	35.9
			100					
Combined Noise Level - Playfields only (Leq)							<b>Leq</b>	<b>49.4</b>
	Initial Sound Pressure Level	Initial number of noise sources	New number of noise sources	Adjusted SPL	Measurement Distance	Hard (0) or Soft Site (0.5)	New Distance	New Noise Level
Soccer Field	51.2	17	50	55.9	50	0.5	130	43.4
Playground Equipment	61.9	20	50	65.9	6	0	230	34.2
			100					
Combined Noise Level - Playfields only (L50)							<b>L50</b>	<b>43.9</b>
	Initial Sound Pressure Level	Initial number of noise sources	New number of noise sources	Adjusted SPL	Measurement Distance	Hard (0) or Soft Site (0.5)	New Distance	New Noise Level
Soccer Field	53.2	17	50	57.9	50	0.5	130	45.4
Playground Equipment	64	20	50	68.0	6	0	230	36.3
			100					
Combined Noise Level - Playfields only (L25)							<b>L25</b>	<b>45.9</b>
	Initial Sound Pressure Level	Initial number of noise sources	New number of noise sources	Adjusted SPL	Measurement Distance	Hard (0) or Soft Site (0.5)	New Distance	New Noise Level
Soccer Field	57.5	17	50	62.2	50	0.5	130	49.7
Playground Equipment	66.9	20	50	70.9	6	0	230	39.2
			100					
Combined Noise Level - Playfields only (L8)							<b>L8</b>	<b>50.1</b>
	Initial Sound Pressure Level	Initial number of noise sources	New number of noise sources	Adjusted SPL	Measurement Distance	Hard (0) or Soft Site (0.5)	New Distance	New Noise Level
Soccer Field	68.2	17	50	72.9	50	0.5	130	60.4
Playground Equipment	70.1	20	50	74.1	6	0	230	42.4
			100					
Combined Noise Level - Playfields only (L2)							<b>L2</b>	<b>60.5</b>

Athletic Field Noise data obtained from noise monitoring of Sports Activities at The Planning Center. Assume one spectator for every player on the field. Where no data was available, noise levels generated from Basketball Court Activities were used (Playground Equipment).

**Noise Monitoring of Athletic Activities - Miles Square Park, Fountain Valley**

Site	Location	Date	Time	Duration	Leq	SEL	Lmax	Lmin	Peak	Uwpk	L(2)	L(8)	L(16)	L(25)	L(50)	L(90)
football	50 ft	10-Oct	5:02 PM	1200	57	87.8	72.7	46.3	88.3	90.4	68.2	57.5	54.5	53.2	51.2	48.5
Tennis	20 ft	10-Oct	5:27 PM	1200	59.5	90.3	73.3	51	101.8	101.4	64.8	62.1	60.8	60	58.6	55.9
Basketball	62 feet from activity, 9 feet from court	12-Oct	4:57 PM	1200	59.7	90.5	69.6	51.8	101.1	101.1	64.8	62.5	61.2	60.4	58.8	55.9
UCIParkingStructure	5 feet from the central courts and eight feet from the southern courts.	10-Oct	3:04 PM	1200	61.7	92.5	79.1	50.5	93.1	97.6	70.9	64.4	61.3	59.8	57.5	54.1
Basketball2		16-Oct	10:27 AM	1200	63.6	94.4	77.1	53.9	105.2	106.7	70.1	66.9	65.3	64	61.9	58.8

**Noise Measurements of Sports Activities and the Parking Garage**

<b>Monitoring Site</b>	<b>Lmax</b>	<b>Leq</b>	<b>Lmin</b>
Boys Football Practice	72.7	57.0	46.3
Tennis Court Activity	73.3	59.5	51.0
Basketball Activity (Wednesday)	69.6	59.7	51.8
Basketball Activity (Sunday)	77.1	63.6	53.9
Parking Garage	79.1	61.7	50.5

Noise monitoring of boys football practice and tennis court activity was conducted on October 10, 2005 between the hours of 5:00 p.m. and 6:1700 p.m. at Miles Square Park sports fields.

Noise monitoring of Wednesday basketball activity was conducted on October 13, 2005 between the hours of 5:00 p.m. and 5:30 p.m. at Miles Square Park sports fields

Noise monitoring of Sunday basketball activity was conducted on October 16, 2005 between the hours of 10:30 a.m. and 11:00 a.m. at Miles Square Park sports fields

Noise monitoring of the parking garage was conducted on October 10, 2005 between the hours of 3:10 and 3:30 p.m. at the University of California, Irvine, Social Sciences Parking Garage.

All noise measurements were 20 minutes in duration.

**Boys Football Practice**

Noise monitoring was conducted at 5:00 p.m. on October 10, 2005 approximately 50 feet from a boys football team practice at the southwest end of the playfield in Mile Square Park. The boys football team consisted of 17 players. Football practice took place in a large area with 2 baseballs fields. There were a total of three football teams, and 2 cheerleading squads located in this area. The two other football teams were practicing at the far east end of the playfield. The girls cheerleading squad was practicing at the far north end of the playfield. These other teams were located over 100 feet from monitoring activity. Primary noise during noise monitoring was football players screaming plays and exercises. Secondary noise included parking lot noise and other sports activities occurring farther from the practice field.

**Tennis Court Activity**

Noise Monitoring was conducted at 5:30 p.m. on October 10, 2005 at the tennis court area of Mile Square Park. Noise monitoring was conducted in the center isle between two tennis court activity areas. The noise meter was placed 20 feet from the single-player tennis court area and 22 feet from the multiple player tennis court area. There were 2 single player tennis courts and 3 multiple player tennis courts within a 50-foot radius of noise monitoring, although this area is part of a much larger tennis court complex of Mile Square Park, which includes 12 multiple-player tennis courts and 2 single player tennis courts.. There were 4 tennis players within the single court tennis area (2 to a court) and 6 tennis players within the team tennis court area located within the general vicinity of the noise monitoring location. Primary noise from tennis court activities was tennis balls hitting the hardcourt, wall and tennis racket. Secondary noise included noise from children playing on the playfields to the east of the tennis court complex area and noise from Brookhurst Street, located to the west of the tennis court complex.

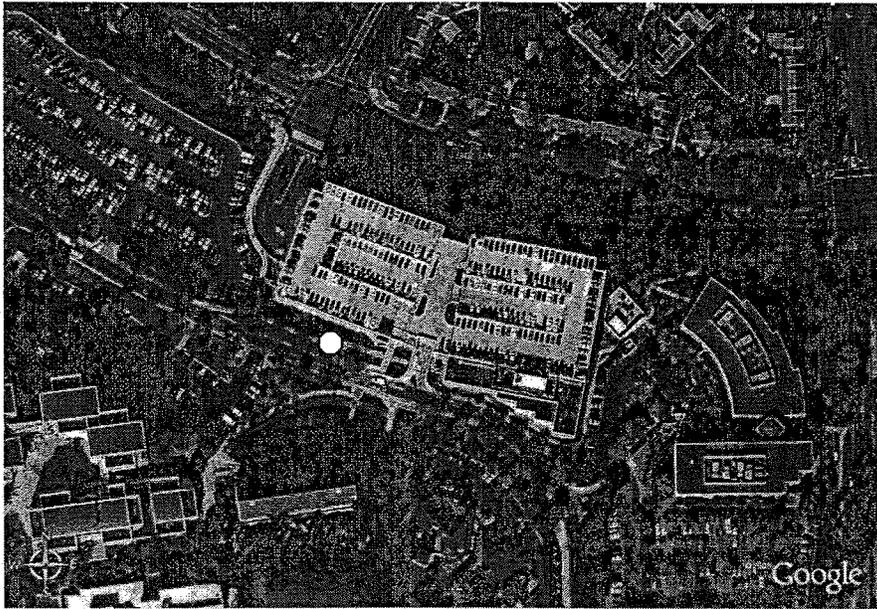
Basketball Court (Wednesday) Noise monitoring was conducted at 5:00 p.m. on October 12, 2005 approximately 9 feet from the basketball court area and 61 feet from the basketball court with full team basketball game in progress in Mile Square Park. The noise meter was placed on the southeast side of the basketball court area. The basketball court area consists of 6 full basketball courts; however, many players on the courts played half-court games. Primary noise during monitoring was basketball activity on the courts. Noise from basketball games and practice include sound of the basketball hitting the backboard and hardcourt area, noise from the hoop chain, and noise from players talking. A 2 player half-court game was in progress approximately 50 feet from the noise monitoring location. An 11-player full-court basketball game was in progress 61 feet from the noise monitoring location. Other activity on the courts included a basketball game with 10 people to the northwest and single player practice on the courts in the northern court area. Secondary noise included traffic from Brookhurst Street, which borders the western side of the basketball court area.

Basketball Court (Sunday) Noise monitoring was conducted at 10:30 a.m. on October 16, 2005, 5 feet from the central courts and eight feet from the southern courts. The noise meter was placed on the southwest side of the basketball court area. The basketball court area consists of 6 full basketball courts; or 12 half-court basketball courts. Primary noise during monitoring was basketball activity on the courts. Noise from basketball games and practice include sound of the basketball hitting the backboard and hardcourt area, noise from the hoop chain, and noise from players talking. The loudest single event noise from basketball activity is the basketball hitting the backboard. The noise meter was approximately 27 feet from two basketball hoops/backboards that were in use. A 2 player half-court game was in progress approximately 5 feet from the noise monitoring location. A 10-player full-court basketball game was in progress 8 feet from the noise monitoring location. Other activity on the courts included a basketball game with 10 people and single player to the east (approximately 59 feet away). In addition, a 3 player game was in progress in the southeastern corner. Secondary noise included traffic from Brookhurst Street, which borders the western side of the basketball court area and small craft airplane overflights from the John Wayne International Airport.

Parking Garage Noise monitoring was conducted at 3:10 p.m. on October 10, 2005 at the University of California, Irvine, Social Sciences Parking Structure. Noise monitoring was conducted approximately 10 feet from Pereira Drive and 42 feet from the parking structure. The Social Science Parking Lot accommodates 1,824 vehicles and is a seven story structure. The Social Sciences Parking Structure has two entrances/exits, one on the lower level, which provides ingress/egress to Campus Drive, and one on the second level, which provides ingress/egress to Pereira Drive. Noise measurements were

taken near the Pereira Drive entrance, approximately 100 feet west of the entrance/exit. The meter was located southeast and one story above the Campus Drive entrance/exit. Monitoring was conducted at the end of the 2:00 pm to 3:20 pm. Monday/Wednesday class period, and was apparent as large increases in pedestrian activity to the parking structure occurred during noise monitoring. Primary noise environment at the Social Sciences Parking Structure was noise from Pereira Drive and construction equipment noise from campus renovations further to the west. While the Social Sciences Parking Structure added to the noise environment, it was not the primary noise source. Noise sources during noise monitoring from the parking structure included car horns, car engines, brakes and tires, automatic lock beeps, car alarms, and car radios. Secondary noise environment in the vicinity of noise monitoring included students talking on their way to/back-from class. Although Campus Drive was located directly north of the noise monitoring, noise from traffic on this roadway was blocked by the placement of the Social Sciences Parking Structure between the roadway and the noise monitoring location. During noise monitoring, there were 35 light duty autos that entered/exited the parking structure through the Pereira Drive entrance/exit. Traffic volume on Pereira Drive during noise monitoring included 95 light duty autos, 1 medium duty truck, and 8 campus shuttle busses (heavy duty truck).





**Construction generated Vibration**

**Cerritos Affordable Housing and ABC District Office Relocation**

Average vibration levels as measured from the center of construction activities

Construction generated Vibration		15.7-Acre site to East		Distance		200	
Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate RMS a Velocity at 25 ft, inch/second	Approximate Velocity Level, VdB	Approximate RMS a Velocity at 200 ft, inch/second			
Large bulldozer	87	0.089	69	0.0039			
Small bulldozer	58	0.003	40	0.0001			
Jackhammer	79	0.035	61	0.0015			
Loaded trucks	86	0.076	68	0.0034			
		Criteria	80	0.2			

Construction generated Vibration		15.7-Acre site to North		Distance		300	
Equipment	Approximate Velocity Level at 25 ft, VdB	Approximate RMS a Velocity at 25 ft, inch/second	Approximate Velocity Level, VdB	Approximate RMS a Velocity at 300 ft, inch/second			
Large bulldozer	87	0.089	65	0.0021			
Small bulldozer	58	0.003	36	0.0001			
Jackhammer	79	0.035	57	0.0008			
Loaded trucks	86	0.076	64	0.0018			
		Criteria	80	0.2			

<sup>1</sup> Determined based on use of jackhammers or pneumatic hammers that may be used for pavement demolition at a distance of 25 feet  
 Notes: RMS velocity calculated from vibration level (VdB) using the reference of one microinch/second.  
 Source: Based on methodology from the United States Department of Transportation Federal Transit Administration, *Transit Noise and Vibration Impact Assessment* (1995).

# Cerritos Affordable Housing and ABC District Office Relocation

Average construction noise levels as measured from the center of construction activities

hard or soft

## Construction Noise at 50 Feet (dBA Leq)

50

0

Construction Phase	All Applicable Equipment in Use <sup>1</sup>	Minimum Required Equipment in Use <sup>1</sup>
Ground Clearing/Demolition	83	83
Excavation	88	75
Foundation Construction	81	81
Building Construction	81	65
Finishing and Site Cleanup	88	72

## 15.7-Acre Construction Noise at 200 Feet (dBA Leq)

200

Construction Phase	All Applicable Equipment in Use <sup>1</sup>	Minimum Required Equipment in Use <sup>1</sup>
Ground Clearing/Demolition	71	71
Excavation	76	63
Foundation Construction	69	69
Building Construction	69	53
Finishing and Site Cleanup	76	60

## 15.7-Acre Construction Noise at 300 Feet (dBA Leq)

300

Construction Phase	All Applicable Equipment in Use <sup>1</sup>	Minimum Required Equipment in Use <sup>1</sup>
Ground Clearing/Demolition	67	67
Excavation	72	59
Foundation Construction	65	65
Building Construction	65	49
Finishing and Site Cleanup	72	56

Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances," prepared for the USEPA,

Feet

Noise Levels

Noise levels at 200 feet

Rock Crusher noise levels

18

104

83 dBA

Source: Sound Solutions Northwest, Inc. Quarry at Puller Brothers. August 23, 2006.

*Appendix C.*  
*Traffic Impact Analysis*



## *Appendix*

---

This page intentionally left blank.

**CITY OF CERRITOS**

**CERRITOS AFFORDABLE HOUSING AND  
PARK PROJECT**

**TRAFFIC IMPACT ANALYSIS (REVISED)**

Prepared by:

**Bryan Crawford,  
Carl Ballard, and  
William Kunzman, P.E.**

*William Kunzman*



**August 24, 2007**

**KUNZMAN ASSOCIATES**

1111 TOWN & COUNTRY ROAD, SUITE 34

ORANGE, CA 92868-4667

PHONE: (714) 973-8383

FAX: (714) 973-8821

EMAIL: [MAIL@TRAFFIC-ENGINEER.COM](mailto:MAIL@TRAFFIC-ENGINEER.COM)

WEB: [WWW.TRAFFIC-ENGINEER.COM](http://WWW.TRAFFIC-ENGINEER.COM)

3652b

# Table of Contents

---

<b>I. Findings</b> .....	<b>2</b>
A. Existing Traffic Conditions .....	2
B. Traffic Impacts .....	3
C. Mitigation Measures .....	4
<b>II. Congestion Management Program Methodology</b> .....	<b>5</b>
A. County Congestion Management Program .....	5
B. Prescribed Methodology for A Traffic Impact Analysis .....	6
C. Mitigation Measures .....	7
<b>III. Project Description</b> .....	<b>8</b>
A. Location .....	8
B. Proposed Development.....	8
<b>IV. Existing Traffic Conditions</b> .....	<b>11</b>
A. Surrounding Street System.....	11
B. Existing Travel Lanes and Intersection Controls .....	12
C. Existing Average Daily Traffic Volumes .....	12
D. Existing Levels of Service .....	12
E. Existing General Plan Circulation Elements.....	13
F. Transit Service .....	13
<b>V. Project Traffic</b> .....	<b>22</b>
A. Trip Generation .....	22
B. Trip Generation Comparison.....	22
C. Trip Distribution .....	23
D. Trip Assignment.....	23
E. Modal Split .....	23
<b>VI. Opening Year (2011) Traffic Conditions</b> .....	<b>38</b>
A. Method of Projection.....	38
B. Opening Year (2011) Average Daily Traffic Volumes .....	38
C. Opening Year (2011) Levels of Service .....	38
D. Significant Transportation Impact .....	39
<b>VII. Recommendations</b> .....	<b>49</b>
A. Site Access .....	49
B. Roadway Improvements .....	49
1. On- Site .....	49
2. Off-Site .....	49

## **APPENDICES**

**Appendix A – Glossary of Transportation Terms**

**Appendix B – Traffic Count Worksheets**

**Appendix C – Explanation and Calculation of Intersection Capacity  
Utilization**

**Appendix D – Cerritos Affordable Housing Communities Tube Count  
Worksheets**

## List of Tables

---

---

Table 1.	Existing Intersection Capacity Utilization and Level of Service.....	14
Table 2.	Project Traffic Generation .....	24
Table 3.	ABC Unified School District Offices Traffic Generation .....	25
Table 4.	Project Traffic Generation Comparison .....	26
Table 5.	Opening Year (2011) Without Project Intersection Capacity Utilization and Level of Service .....	40
Table 6.	Opening Year (2011) With Project Intersection Capacity Utilization and Level of Service .....	41
Table 7.	Project Traffic Contribution.....	42

## List of Figures

---

Figure 1.	Project Location Map .....	9
Figure 2.	Site Plan .....	10
Figure 3.	Existing Through Travel Lanes and Intersection Controls .....	15
Figure 4.	Existing Average Daily Traffic Volumes .....	16
Figure 5.	Existing Morning Peak Hour Intersection Turning Movement Volumes .....	17
Figure 6.	Existing Evening Peak Hour Intersection Turning Movement Volumes .....	18
Figure 7.	City of Cerritos General Plan Circulation Element .....	19
Figure 8.	City of Norwalk General Plan Circulation Element .....	20
Figure 9.	City of Artesia General Plan Circulation Element .....	21
Figure 10.	Project Outbound Traffic Distribution .....	27
Figure 11.	Project Inbound Traffic Distribution .....	28
Figure 12.	Existing ABC Unified School District Office Outbound Traffic Distribution .....	29
Figure 13.	Existing ABC Unified School District Office Inbound Traffic Distribution .....	30
Figure 14.	Existing Office Building at 12881 166th Street Outbound Traffic Distribution .....	31
Figure 15.	Existing Office Building at 12881 166th Street Inbound Traffic Distribution .....	32
Figure 16.	Proposed ABC Unified School District Office Outbound Traffic Distribution .....	33
Figure 17.	Proposed ABC Unified School District Office Inbound Traffic Distribution .....	34
Figure 18.	Project Average Daily Traffic Volumes .....	35

Figure 19. Project Morning Peak Hour Intersection Turning Movement Volumes .....	36
Figure 20. Project Evening Peak Hour Intersection Turning Movement Volumes .....	37
Figure 21. Opening Year (2011) Without Project Average Daily Traffic Volumes .....	43
Figure 22. Opening Year (2011) With Project Average Daily Traffic Volumes .....	44
Figure 23. Opening Year (2011) Without Project Morning Peak Hour Intersection Turning Movement Volumes .....	45
Figure 24. Opening Year (2011) Without Project Evening Peak Hour Intersection Turning Movement Volumes .....	46
Figure 25. Opening Year (2011) With Project Morning Peak Hour Intersection Turning Movement Volumes .....	47
Figure 26. Opening Year (2011) With Project Evening Peak Hour Intersection Turning Movement Volumes .....	48
Figure 27. Circulation Recommendations .....	50

**City of Cerritos**

**Cerritos Affordable Housing and Park Project**

**Traffic Impact Analysis (Revised)**

This report contains the revised traffic impact analysis for the Cerritos Affordable Housing and Park project in the City of Cerritos. The approximately 16 acre project site is located at the southeast corner of Norwalk Boulevard and 166th Street in the City of Cerritos. This housing project would displace the ABC Unified School District Offices which would be relocated to 12881 166th Street within the City of Cerritos.

The traffic report contains documentation of existing traffic conditions, traffic generated by the project, distribution of the project traffic to roads outside the project, and an analysis of future traffic conditions. Each of these topics is contained in a separate section of the report. The first section is "Findings", and subsequent sections expand upon the findings. In this way, information on any particular aspect of the study can be easily located by the reader.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided within Appendix A.

## I. Findings

---

This section summarizes the existing traffic conditions, project traffic impacts, and the proposed mitigation measures.

### A. Existing Traffic Conditions

1. The Norwalk Boulevard/166th Street project site is currently used by the ABC Unified School District as their district offices. The building located at 12881 166th Street is currently an office building.
2. The project site currently has access to Norwalk Boulevard, Cuesta Drive, and 166th Street.
3. The study area includes the following intersections:
  - Norwalk Boulevard (NS) at:
    - Alondra Boulevard (EW)
    - 166th Street (EW)
    - Cuesta Drive (EW)
    - SR-91 Freeway WB Off Ramp (EW)
    - SR-91 Freeway EB Off Ramp/Palm Street (EW)
    - Artesia Boulevard (EW)
  - Bloomfield Avenue (NS) at:
    - Alondra Boulevard (EW)
    - 166th Street (EW)
    - SR-91 Freeway WB On Ramp/Lucas Street (EW)
    - SR-91 Freeway EB Off Ramp (EW)
    - Artesia Boulevard (EW)
  - SR-91 Freeway WB Off Ramp (NS) at:
    - Artesia Boulevard (EW)
  - SR-91 Freeway EB Ramps (NS) at:
    - Park Plaza Drive (EW)
  - Shoemaker Avenue (NS) at:
    - Alondra Boulevard (EW)
    - 166th Street (EW)
    - Artesia Boulevard (EW)
    - Park Plaza Drive (EW)
4. The study area intersections currently operate at Level of Service D or better during the peak hours for Existing traffic conditions (see Table 1).

## B. Traffic Impacts

1. The project site is proposed to be developed with 247 multi-family attached residential dwelling units and a 13,000 square foot community center. This housing project would displace the ABC Unified School District Offices which would be relocated to 12881 166th Street within the City of Cerritos.
2. The proposed development is projected to generate approximately 1,744 daily vehicle trips, 129 vehicles per hour will occur during the morning peak hour and 149 vehicles per hour will occur during the evening peak hour (see Table 2).
3. The current ABC Unified School District Offices generates approximately 609 daily vehicle trips, 80 vehicles per hour occurs during the morning peak hour and 89 vehicles per hour occurs during the evening peak hour (see Table 3).
4. The proposed development is projected to generate approximately 1,135 more daily vehicle trips, 49 more vehicles per hour will occur during the morning peak hour, and 60 more vehicles per hour will occur during the evening peak hour than the current ABC Unified School District Offices (see Table 4).
5. The existing general office building at 12881 166th Street generates approximately 505 daily vehicle trips, 71 vehicles per hour occurs during the morning peak hour and 68 vehicles per hour occurs during the evening peak hour (see Table 3).
6. The proposed relocation of the ABC Unified School District Offices to 12881 166th Street is projected to generate approximately 104 more daily vehicle trips, 9 more vehicles per hour will occur during the morning peak hour, and 21 more vehicles per hour will occur during the evening peak hour (see Table 4).
7. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2011) without project traffic conditions (see Table 5).
8. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2011) with project traffic conditions (see Table 6).

**C. Mitigation Measures**

The following measures are recommended to mitigate the impact of the project on traffic circulation:

1. Site-specific circulation and access recommendations are depicted on Figure 27.
2. The study area intersections are not significantly impacted by the project (see Table 7).
3. As is the case for any roadway design, the City of Cerritos should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.
4. Sufficient on-site parking shall be provided to meet City of Cerritos parking code requirements.
5. Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of Cerritos standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.
6. On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

## **II. Congestion Management Program Methodology**

---

This section discusses the County Congestion Management Program. The purpose, prescribed methodology, and definition of a significant traffic impact are discussed.

### **A. County Congestion Management Program**

The Congestion Management Program is a result of Proposition 111 which was a statewide initiative approved by the voters in June 1990. The proposition allowed for a nine cent per gallon state gasoline tax increase over a five year period.

Proposition 111 explicitly stated that the new gas tax revenues were to be used to fix existing traffic problems and was not to be used to promote future development. For a city to get its share of the Proposition 111 gas tax, it has to follow certain procedures specified by the State Legislature. The legislation requires that a Traffic Impact Analysis be prepared for new development. The Traffic Impact Analysis is prepared to monitor and fix traffic problems caused by new development.

The Legislature requires that adjacent jurisdictions use a standard methodology for conducting a Traffic Impact Analysis. To assure that adjacent jurisdictions use a standard methodology in preparing Traffic Impact Analyses, one common procedure is that all cities within a county, and the county agency itself, adopt and use one standard methodology for conducting Traffic Impact Analyses.

Although each county has developed standards for preparing Traffic Impact Analyses, Traffic Impact Analysis requirements do vary in detail from one county to another, but not in overall intent or concept. The general approach selected by each county for conducting Traffic Impact Analysis's has common elements.

The general approach for conducting a Traffic Impact Analysis is that existing weekday peak hour traffic is counted and the percent of roadway capacity currently used is determined. Then growth in traffic is accounted for and added to existing traffic and the percent of roadway capacity used is again determined. Then the project traffic is added and the percent of roadway capacity used is again determined. If the new project adds traffic to an overcrowded facility, then the new project has to mitigate the traffic impact so that the facility operates at a level that is no worse than before the project traffic was added.

If the project size is below a certain minimum threshold level, then a project does not have to have a Traffic Impact Analysis prepared, once it is shown or agreed that the project is below the minimum threshold. If a project is bigger than the minimum threshold size, then a Traffic Impact Analysis is required.

**B. Prescribed Methodology for A Traffic Impact Analysis**

The Traffic Impact Analysis must include all monitored intersections to which the project adds traffic above a certain minimum amount. In Los Angeles County, the monitored intersections are contained in Appendix A of the Congestion Management Program for the County of Los Angeles.

In Los Angeles County, the minimum project added traffic that is needed before an intersection has to be studied is if the project adds 50 two way trips in either the morning or evening weekday peak hour.

If a project adds more traffic than the minimum threshold amount to an intersection, then that intersection has to be analyzed for deficiencies.

If the intersection has to be analyzed for deficiencies, then mitigation is required if the existing traffic plus anticipated traffic growth plus project traffic does cause the Intersection Capacity Utilization to go above a certain point.

In Los Angeles County, the impact is considered significant if the project related increase in the volume to capacity ratio equals or exceeds the thresholds shown below:

Significant Impact Threshold for Intersections		
Level of Service	Volume/Capacity	Incremental Increase
C	0.71-0.80	0.04 or more
D	0.81-0.90	0.02 or more
E/F	0.91 - more	0.01 or more

An intersection mitigation measure shall either fix the deficiency, or reduce the Intersection Capacity Utilization so that it is below the level that occurs without the project.

In Los Angeles County, the technique used to calculate Intersection Capacity Utilization is as follows. Lane capacity is 1,600 vehicles per lane per hour of green time for through and turn lanes, except that a capacity of 2,880 vehicles per lane per hour of green time is used for dual turn lanes. A total yellow clearance time of 10 percent is added.

Project traffic is generated using rates and procedures contained in the Institute of Transportation Engineers, Trip Generation manual. The project traffic distribution is provided by the reviewing agency or is agreed to in

advance of the Traffic Impact Analysis being prepared. The Traffic Impact Analysis has to be prepared by a licensed Traffic Engineer.

This traffic analysis has been prepared in accordance with the Traffic Impact Analysis requirements except as noted. The Traffic Impact Analysis not only examined the Congestion Management Program system of roads and intersections, but also other roads and intersections.

The project generated traffic was added to intersections, and a full intersection analysis was conducted, even when the project added traffic failed to meet the minimum thresholds that require an intersection analysis.

**C. Mitigation Measures**

If a project is large enough to require that a Traffic Impact Analysis be prepared, and if the project adds traffic to an intersection above a minimum threshold, and if the intersection is operating at above an acceptable level of operation, then the project must mitigate its traffic impact.

Traffic mitigation can be in many forms including adding lanes. Lanes can sometimes be obtained through restriping or elimination of parking, and sometimes require spot roadway widening.

### **III. Project Description**

---

This section discusses the project's location and proposed development. Figure 1 shows the project location map and Figure 2 illustrates the site plan.

#### **A. Location**

The approximately 16 acre project site is located at the southeast corner of Norwalk Boulevard and 166th Street in the City of Cerritos.

#### **B. Proposed Development**

The project site is proposed to be developed with 247 multi-family attached residential dwelling units and a 16,000 square foot community center. This housing project would displace the ACB Unified School District Offices which would be relocated to 12881 166th Street within the City of Cerritos.

Figure 1  
Project Location Map

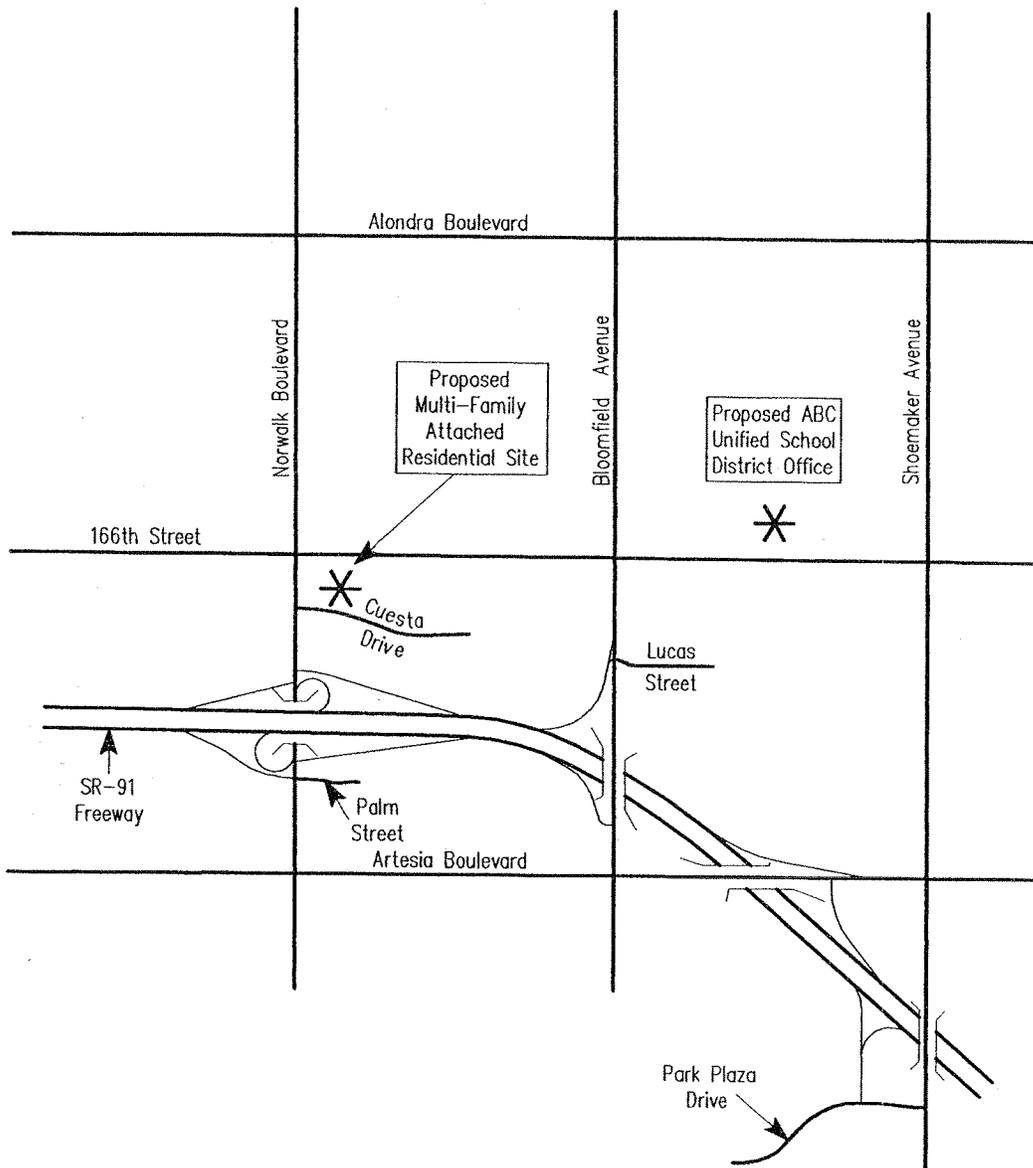
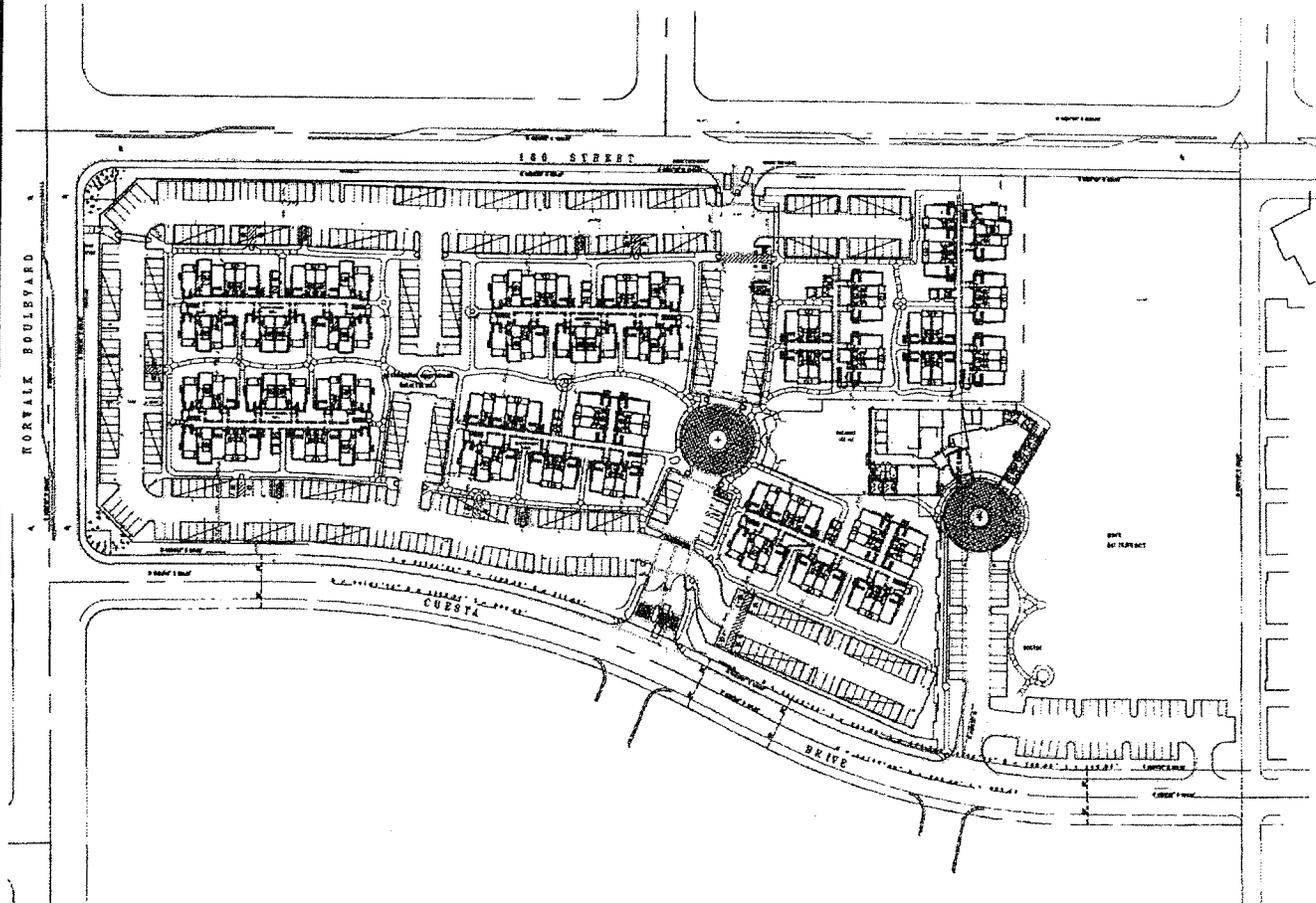


Figure 2  
Site Plan



## IV. Existing Traffic Conditions

---

The traffic conditions as they exist today are discussed below and illustrated on Figures 3 to 9.

### A. Surrounding Street System

Roadways that will be utilized by the development include Norwalk Boulevard, Bloomfield Avenue, Shoemaker Avenue, Alondra Boulevard, 166th Street, Cuesta Drive, Palm Street, Lucas Street, Artesia Boulevard, and Park Plaza Drive.

Norwalk Boulevard: This north-south roadway currently is four lanes undivided to four lanes divided in the study area. It currently carries approximately 14,600 to 22,200 vehicles per day in the study area.

Bloomfield Avenue: This north-south roadway currently is four lanes divided to five lanes divided in the study area. It currently carries approximately 13,100 to 22,400 vehicles per day in the study area.

Shoemaker Avenue: This north-south roadway currently is four lanes divided to five lanes divided in the study area. It currently carries approximately 7,400 to 16,500 vehicles per day in the study area.

Alondra Boulevard: This east-west roadway currently is four lanes divided in the study area. It currently carries approximately 14,600 to 20,500 vehicles per day in the study area.

166th Street: This east-west roadway currently is four lanes undivided to four lanes divided in the study area. It currently carries approximately 11,000 to 14,200 vehicles per day in the study area.

Cuesta Drive: This east-west roadway currently is two lanes undivided in the study area. It currently carries approximately 7,500 vehicles per day in the study area.

Palm Street: This east-west roadway currently is two lanes undivided in the study area. It currently carries approximately 4,300 vehicles per day in the study area.

Lucas Street: This east-west roadway currently is two lanes undivided in the study area. It currently carries approximately 2,000 vehicles per day in the study area.

Artesia Boulevard: This east-west roadway currently is four lanes divided in the study area. It currently carries approximately 21,000 to 25,100 vehicles per day in the study area.

Park Plaza Drive: This east-west roadway currently is four lanes divided to five lanes divided in the study area. It currently carries approximately 9,900 to 11,600 vehicles per day in the study area.

**B. Existing Travel Lanes and Intersection Controls**

Figure 3 identifies the existing roadway conditions for study area roadways. The number of through lanes for existing roadways and the existing intersection controls are identified.

**C. Existing Average Daily Traffic Volumes**

Figure 4 depicts the existing average daily traffic volumes. The existing average daily traffic volumes have been obtained from the 2006 Traffic Volumes on California State Highways by the California Department of Transportation and factored from peak hour counts obtained by Kunzman Associates (see Appendix B) using the following formula for each intersection leg:

$$\text{PM Peak Hour (Approach Volume + Exit Volume)} \times 10 = \text{Leg Volume.}$$

**D. Existing Levels of Service**

The technique used to assess the operation of an intersection is known as Intersection Capacity Utilization, as described in Appendix C. To calculate an Intersection Capacity Utilization value, the volume of traffic using the intersection is compared with the capacity of the intersection. An Intersection Capacity Utilization value is usually expressed as a decimal. The decimal represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The Intersection Capacity Utilization's for the existing traffic conditions have been calculated and are shown in Table 1. Existing Intersection Capacity Utilization's are based upon manual morning and evening peak hour intersection turning movement counts made for Kunzman Associates in April/May/July/August 2007 (see Figures 5 and 6). Traffic count worksheets are provided in Appendix B.

There are two peak hours in a weekday. The morning peak hour is between 7:00 AM and 9:00 AM, and the evening peak hour is between 4:00 PM and 6:00 PM. The actual peak hour within the two hour interval is the four consecutive 15 minute periods with the highest total volume when all

movements are added together. Thus, the evening peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15 minute periods have the highest combined volume.

The study area intersections currently operate at Level of Service D or better during the peak hours for existing traffic conditions (see Table 1). Existing Intersection Capacity Utilization worksheets are provided in Appendix C.

**E. Existing General Plan Circulation Elements**

Figure 7 shows the City of Cerritos General Plan Circulation Element, Figure 8 illustrates the City of Norwalk General Plan Circulation Element, and Figure 9 depicts the City of Artesia General Plan Circulation Element.

**F. Transit Service**

Transit service is provided by the Los Angeles County Metropolitan Transportation Authority Transit Route 128 along Alondra Boulevard and Route 275 along Artesia Boulevard.

Table 1

Existing Intersection Capacity Utilization and Level of Service

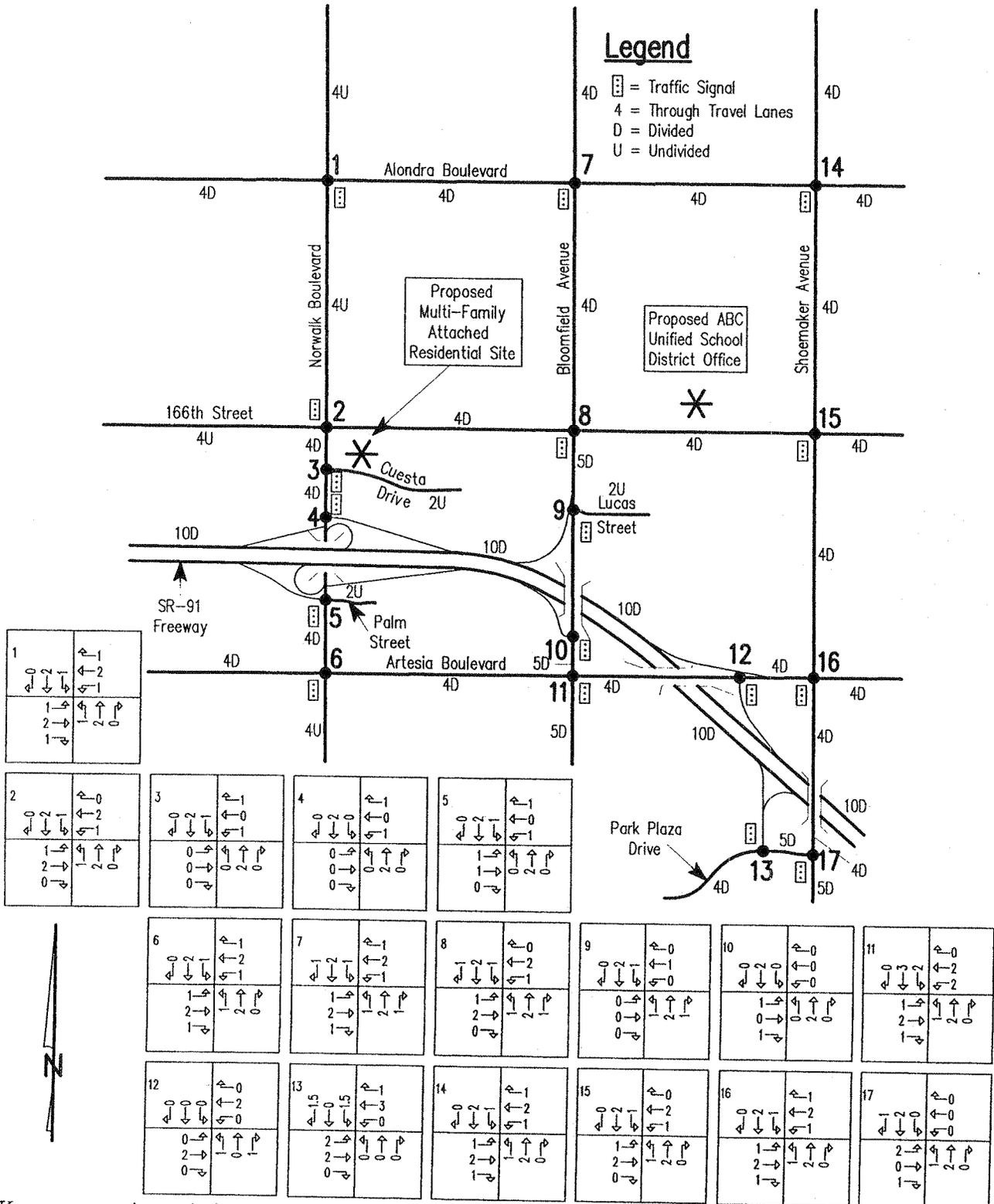
Intersection	Traffic Control <sup>2</sup>	Intersection Approach Lanes <sup>1</sup>												Peak Hour	
		Northbound			Southbound			Eastbound			Westbound			Level of Service	
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Norwalk Boulevard (NS) at:															
Alondra Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.773-C	0.701-C
166th Street (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.610-B	0.622-B
Cuesta Drive (EW)	TS	0	2	0	1	2	0	0	0	0	1	0	1	0.654-B	0.544-A
SR-91 Freeway WB Off Ramp (EW)	TS	0	2	0	0	2	0	0	0	0	1	0	1	0.492-A	0.471-A
SR-91 Freeway EB Off Ramp/Palm Street (EW)	TS	0	2	0	1	2	0	1	1	0	1	0	1	0.620-B	0.697-B
Artesia Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.775-C	0.825-D
Bloomfield Avenue (NS) at:															
Alondra Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	0.463-A	0.642-B
166th Street (EW)	TS	1	2	1	1	2	1	1	2	0	1	2	0	0.647-B	0.729-C
SR-91 Freeway WB On Ramp/Lucas Street (EW)	TS	1	2	1	1	2	0	0	0	0	0	1	0	0.513-A	0.566-A
SR-91 Freeway EB Off Ramp (EW)	TS	0	2	0	0	2	0	1	0	1	0	0	0	0.659-B	0.730-C
Artesia Boulevard (EW)	TS	1	2	0	2	3	0	1	2	1	2	2	0	0.688-A	0.786-C
SR-91 Freeway WB Off Ramp (NS) at:															
Artesia Boulevard (EW)	TS	1	0	1	0	0	0	0	2	0	0	2	0	0.507-A	0.767-C
SR-91 Freeway EB Ramps (NS) at:															
Park Plaza Drive (EW)	TS	0	0	0	1.5	0	1.5	2	2	0	0	3	1	0.370-A	0.476-A
Shoemaker Avenue (NS) at:															
Alondra Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.438-A	0.528-A
166th Street (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.488-A	0.618-A
Artesia Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.632-A	0.863-D
Park Plaza Drive (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	0.433-A	0.610-B

<sup>1</sup> When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

<sup>2</sup> TS = Traffic Signal

**Figure 3**  
Existing Through Travel Lanes and Intersection Controls

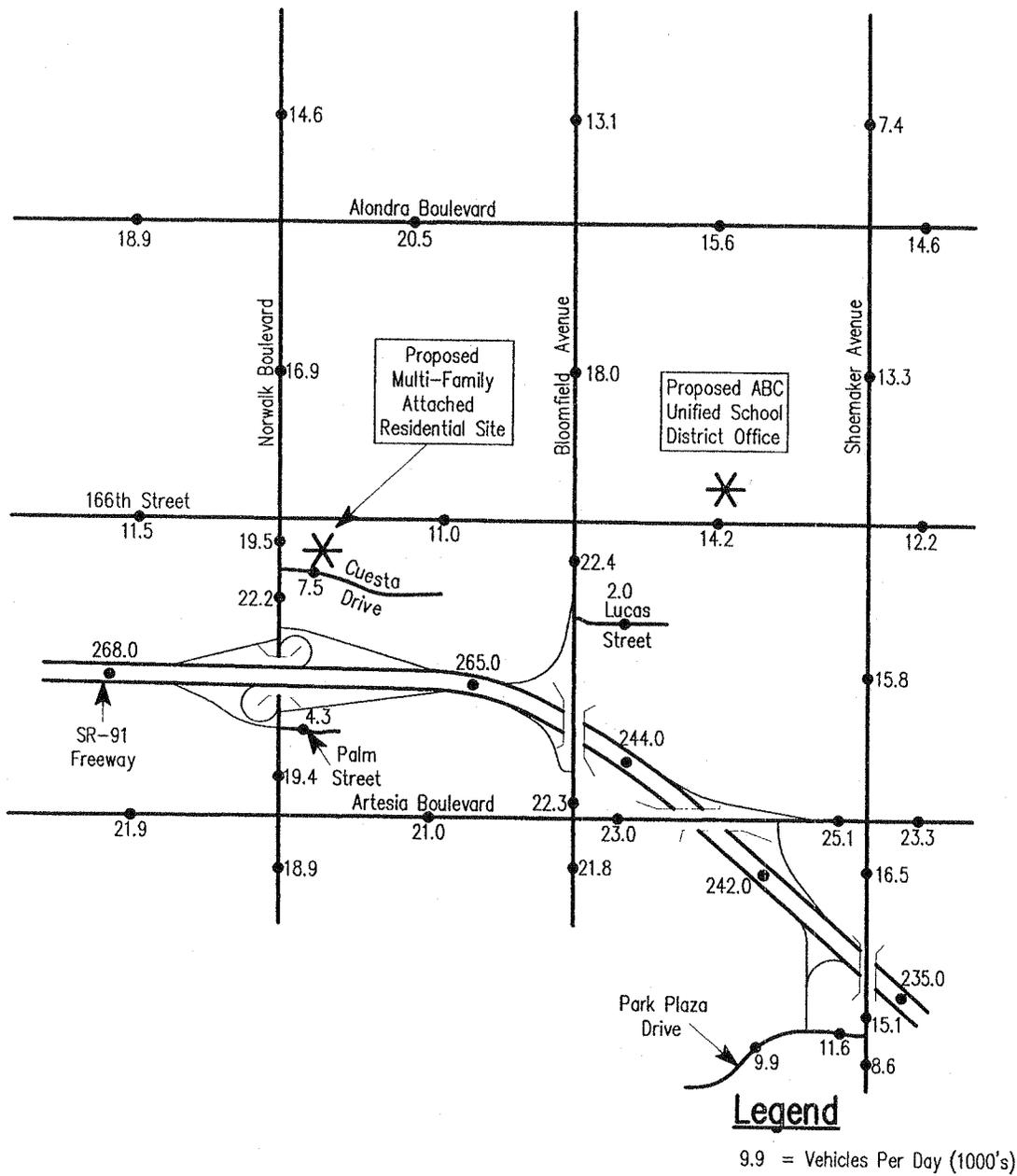


Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

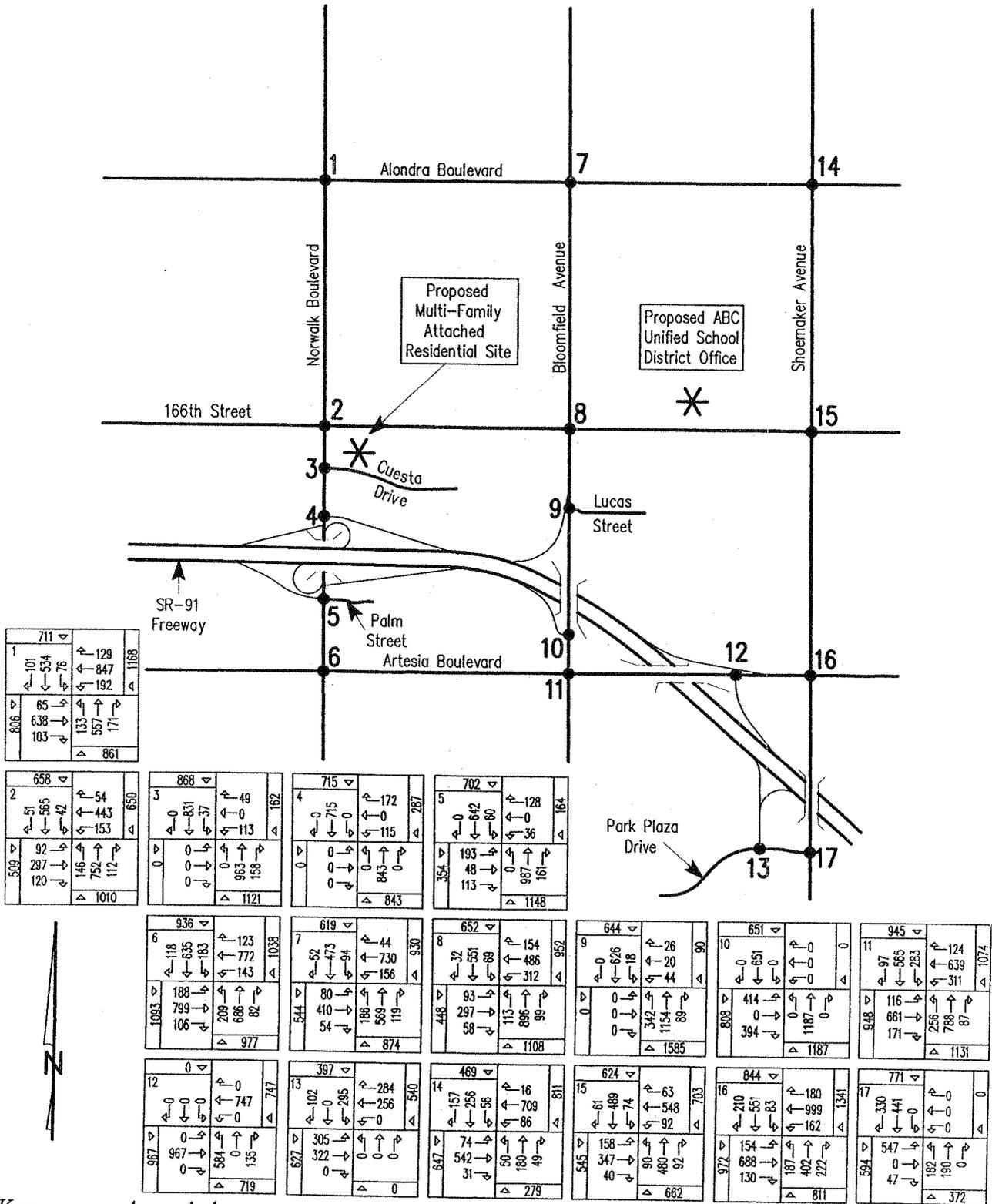
3652b/3

# Figure 4 Existing Average Daily Traffic Volumes





# Figure 6 Existing Evening Peak Hour Intersection Turning Movement Volumes

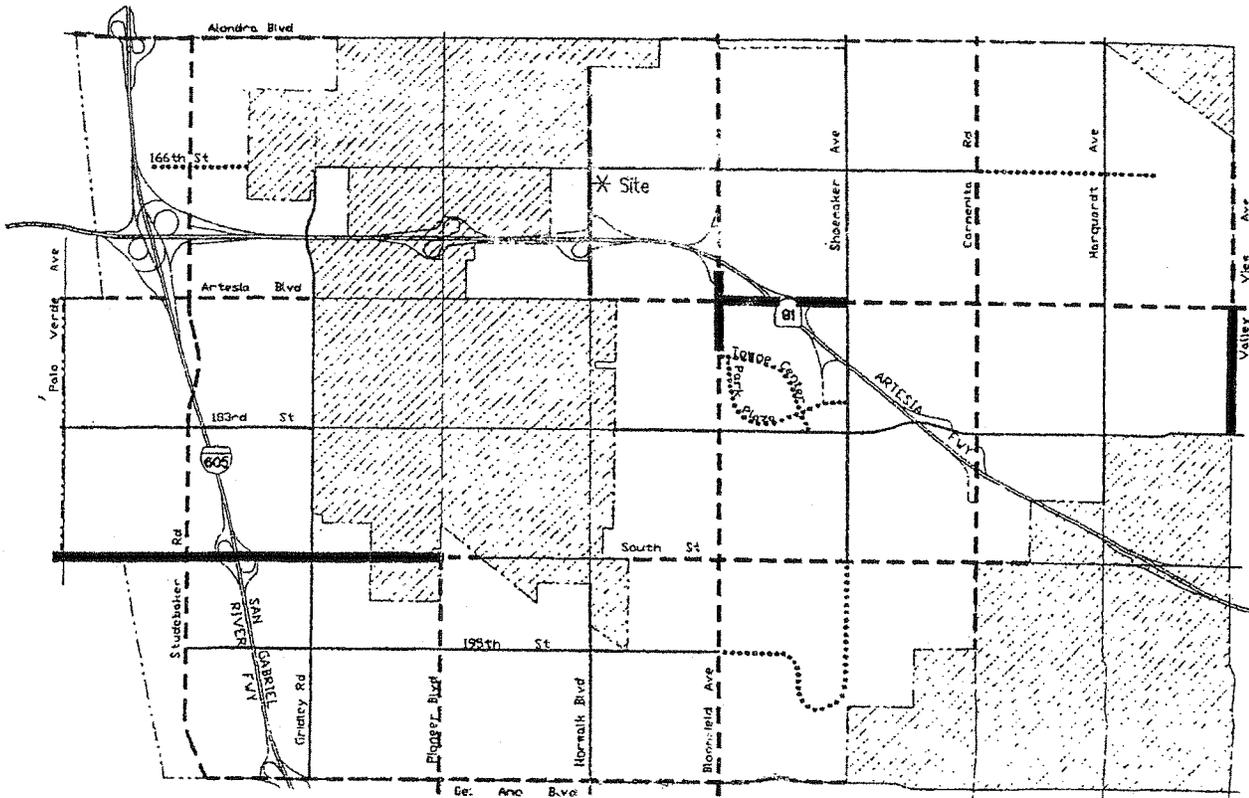


Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3652b/bbas

Figure 7  
 City of Cerritos General Plan Circulation Element

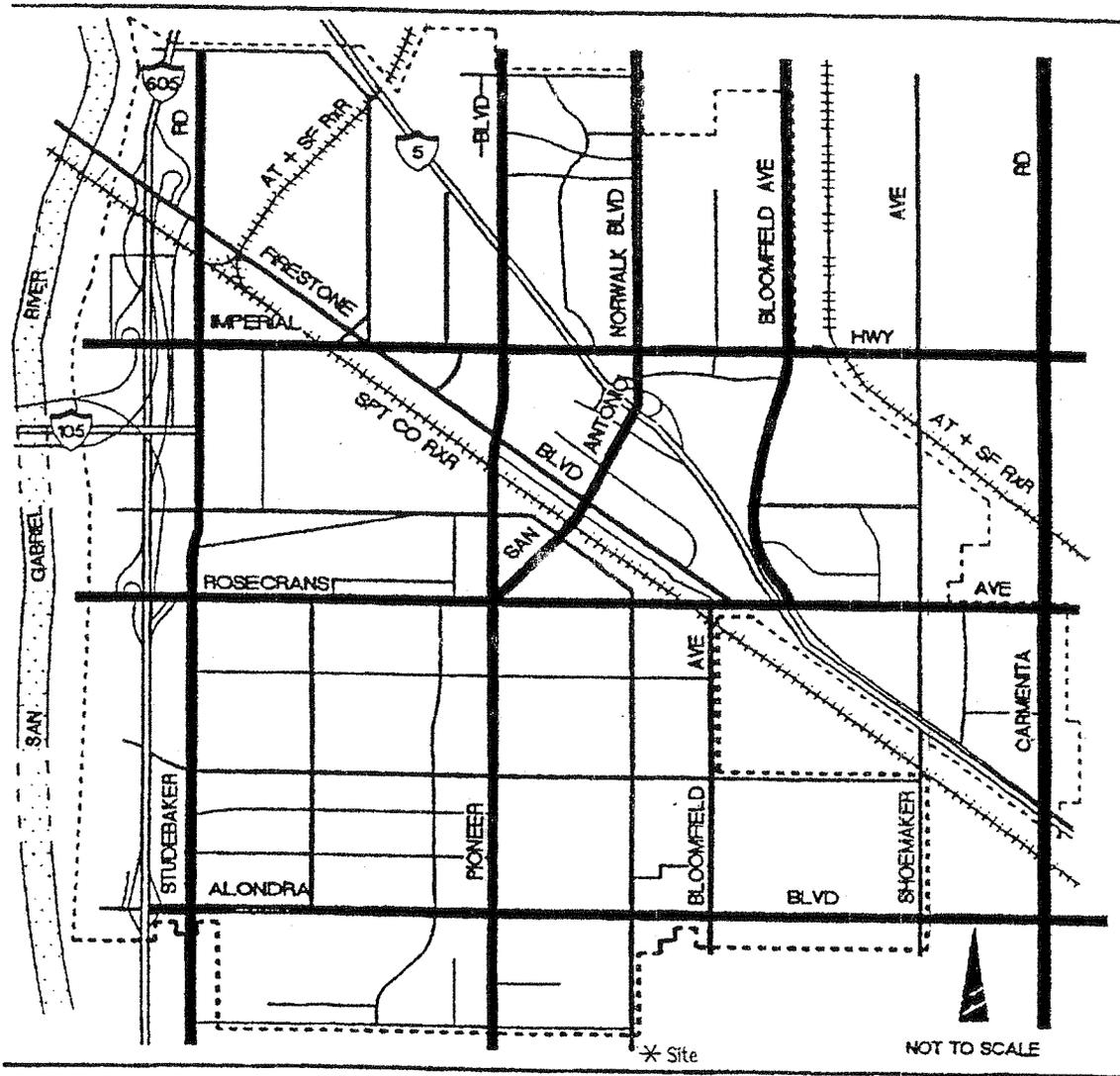


LEGEND

-  Major Arterial (6 lanes)
-  Major Arterial (4 lanes)
-  Secondary Arterial with Center Divider
-  Secondary Arterial with No Center Divider
-  Cerritos Limits



Figure 8  
 City of Norwalk General Plan Circulation Element



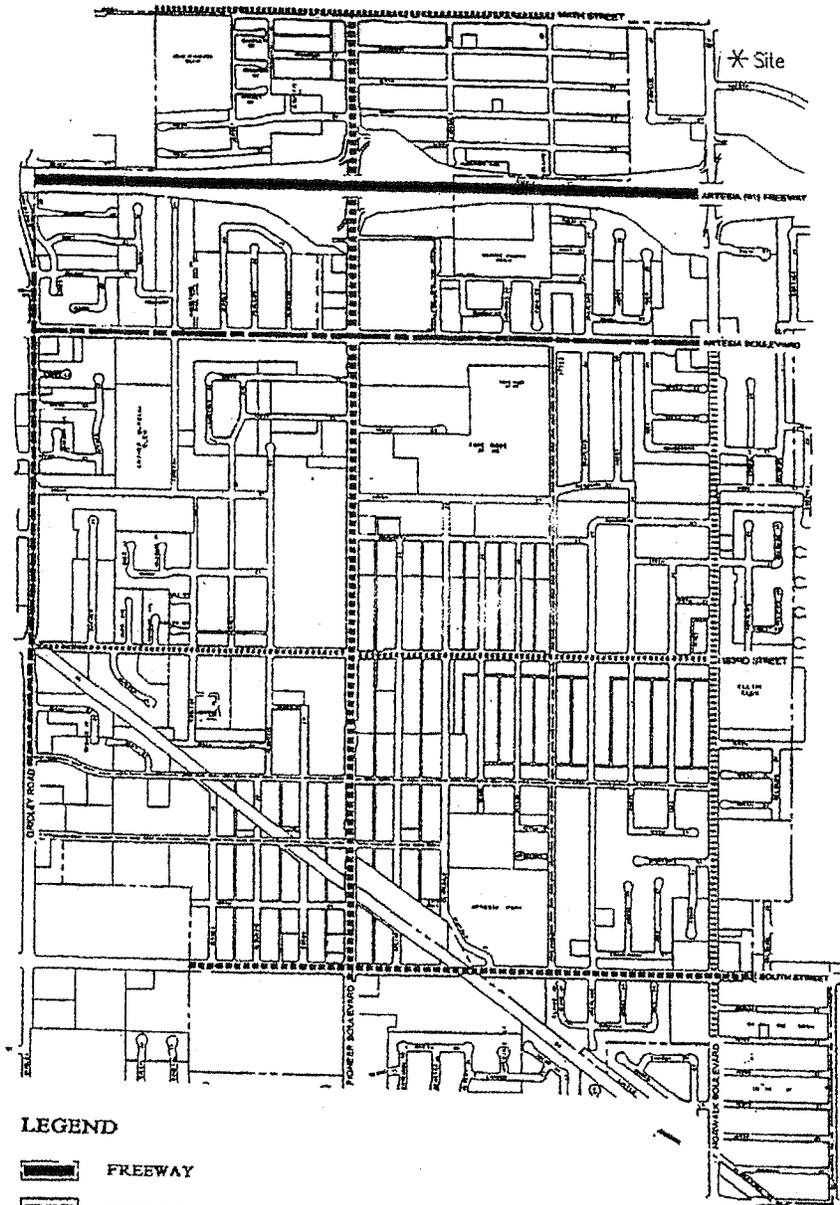
**LEGEND:**

- - - - - STUDY AREA BOUNDARY
- ==== FREEWAY
- ==== MAJOR HIGHWAY - 100' ROW
- ==== SECONDARY HIGHWAY - 80' ROW
- ==== COLLECTOR ROAD 54'-60' ROW
- + + + + + RAILROAD



NOT TO SCALE

# Figure 9 City of Artesia General Plan Circulation Element



**LEGEND**

- FREEWAY**
- PRIMARY HIGHWAY**
- SECONDARY HIGHWAY**
- PRIMARY ARTERIAL HIGHWAY**
- SECONDARY ARTERIAL HIGHWAY**
- COLLECTOR ROAD**



## V. Project Traffic

---

The project site is proposed to be developed with 247 multi-family attached residential dwelling units and a 16,000 square foot community center. This housing project would displace the ABC Unified School District Offices which would be relocated to 12881 166th Street within the City of Cerritos.

### A. Trip Generation

The traffic generated by the project is determined by multiplying an appropriate trip generation rate by the quantity of land use. Trip generation rates are predicated on the assumption that energy costs, the availability of roadway capacity, the availability of vehicles to drive, and our life styles remain similar to what we know today. A major change in these variables may affect trip generation rates.

Trip generation rates were determined for daily traffic, morning peak hour inbound and outbound traffic, and evening peak hour inbound and outbound traffic for the proposed land uses. By multiplying the traffic generation rates by the land use quantities, the traffic volumes are determined. Tables 2 to 4 exhibit the traffic generation rates, project peak hour volumes, and project daily traffic volumes. The traffic generation rates are from the Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003.

The proposed development is projected to generate approximately 1,744 daily vehicle trips, 129 vehicles per hour will occur during the morning peak hour and 149 vehicles per hour will occur during the evening peak hour.

### B. Trip Generation Comparison

The Institute of Transportation Engineers trip generation for the proposed project is projected to generate approximately 445 more daily vehicle trips, 16 less vehicles per hour will occur during the morning peak hour, and 40 more vehicles per hour during the evening peak hour than the actual counts obtained from the Emerald Villas and Pioneer Villas senior affordable housing communities (see Appendix D). In order to provide a "worst case" scenario, the trip generation rates from the Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003, were used in the analysis throughout this report.

The current ABC Unified School District Offices generates approximately 609 daily vehicle trips, 80 vehicles per hour occurs during the morning peak hour and 89 vehicles per hour occurs during the evening peak hour.

The proposed development is projected to generate approximately 1,135 more daily vehicle trips, 49 more vehicles per hour will occur during the morning peak hour, and 60 more vehicles per hour will occur during the evening peak hour than the current ABC Unified School District Offices.

The existing office building at 12881 166th Street generates approximately 505 daily vehicle trips, 71 vehicles per hour occurs during the morning peak hour and 68 vehicles per hour occurs during the evening peak hour.

The proposed relocation of the ABC Unified School District Offices to 12881 166th Street is projected to generate approximately 104 more daily vehicle trips, 9 more vehicles per hour will occur during the morning peak hour, and 21 more vehicles per hour will occur during the evening peak hour. In order to provide a "worst case" scenario, it has been assumed that the existing light industrial building on the relocation site will be replaced by the kitchen facility currently located on the project site.

**C. Trip Distribution**

Figures 10 to 17 contain the directional distributions of the project traffic for the proposed land uses.

To determine the traffic distributions for the proposed project, peak hour traffic counts of the existing directional distribution of traffic for existing areas in the vicinity of the site, and other additional information on future development and traffic impacts in the area were reviewed.

**D. Trip Assignment**

Based on the identified traffic generation and distributions, project average daily traffic volumes have been calculated and shown on Figure 18. Morning and evening peak hour intersection turning movement volumes expected from the project are shown on Figures 19 and 20, respectively.

**E. Modal Split**

The traffic reducing potential of public transit has not been considered in this report. Essentially the traffic projections are conservative in that public transit might be able to reduce the traffic volumes.

**Table 2**

**Project Traffic Generation<sup>1</sup>**

Land Use	Quantity	Units <sup>2</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Trip Generation Rates</u>									
Multi-Family Attached Residential <sup>3</sup>	247	DU	0.07	0.37	0.44	0.35	0.17	0.52	5.86
Community Center	13,000	TSF	0.99	0.63	1.62	0.48	1.16	1.64	22.88
<u>Trips Generated</u>									
Multi-Family Attached Residential	247	DU	17	91	108	86	42	128	1,447
Community Center	13,000	TSF	13	8	21	6	15	21	297
Total			30	99	129	92	57	149	1,744

Land Use	Quantity	Units <sup>2</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Actual Counts<sup>3</sup></u>									
Emerald Villas	126	DU							
-Wednesday			12	22	34	22	20	42	354
-Thursday			15	21	36	16	21	37	356
Average			14	22	36	19	21	40	355
Pioneer Villas	98	DU							
-Wednesday			38	34	72	19	23	42	518
-Thursday			35	32	67	18	18	36	508
Average			37	33	70	19	21	40	513
<u>Conversion To 247 Dwelling Units</u>									
Emerald Villas	247	DU							
Average			27	43	71	37	40	78	696
Pioneer Villas	247	DU							
Average			93	84	177	47	52	102	1309
Total Average			60	64	124	42	46	88	1,002
Difference <sup>4</sup>					+16			-40	-445

<sup>1</sup> Source: Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003, Land Use Categories 230 and 495.

<sup>2</sup> DU = Dwelling Unit; TSF = Thousand Square Feet

<sup>3</sup> Actual counts obtained from 24 hour tube counts (see Appendix D).

<sup>4</sup> Difference in trips generated from Institute of Transportation Engineers rates for 247 dwelling units to actual counts.

**Table 3**

**ABC Unified School District Offices Traffic Generation<sup>1</sup>**

Land Use	Quantity	Units <sup>2</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Trip Generation Rates</u>									
Office	125	EMP	0.57	0.07	0.64	0.11	0.6	0.71	4.87
<u>Trips Generated</u>									
Office	125	EMP	71	9	80	14	75	89	609

**Existing Office Building at 12881 166th Street<sup>1</sup>**

Land Use	Quantity	Units <sup>2</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Trip Generation Rates</u>									
Office	45.850	TSF	1.36	0.19	1.55	0.25	1.24	1.49	11.01
<u>Trips Generated</u>									
Office	45.850	TSF	62	9	71	11	57	68	505

<sup>1</sup> Source: Institute of Transportation Engineers, Trip Generation, 7th Edition, 2003, Land Use Categories 710 and 715.

<sup>2</sup> EMP = Employee; TSF = Thousand Square Feet

**Table 4**

**Project Traffic Generation Comparison<sup>1</sup>**

Land Use	Quantity	Units <sup>2</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Existing<sup>2</sup></u>									
Office	125	EMP	71	9	80	14	75	89	609
<u>Proposed<sup>3</sup></u>									
Multi-Family Attached Residential	247	DU	17	91	108	86	42	128	1,447
Community Center	13,000	TSF	13	8	21	6	15	21	297
Subtotal			30	99	129	92	57	149	1,744
Difference			-41	+90	+49	+78	-18	+60	+1,135

**ABC Unified School District Offices Relocation Traffic Generation Comparison<sup>1</sup>**

Land Use	Quantity	Units <sup>2</sup>	Peak Hour						Daily
			Morning			Evening			
			Inbound	Outbound	Total	Inbound	Outbound	Total	
<u>Existing<sup>2</sup></u>									
Office <sup>4</sup>	45,850	TSF	62	9	71	11	57	68	505
<u>Proposed<sup>2</sup></u>									
Office	125	EMP	71	9	80	14	75	89	609
Difference			+9	0	+9	+3	+18	+21	+104

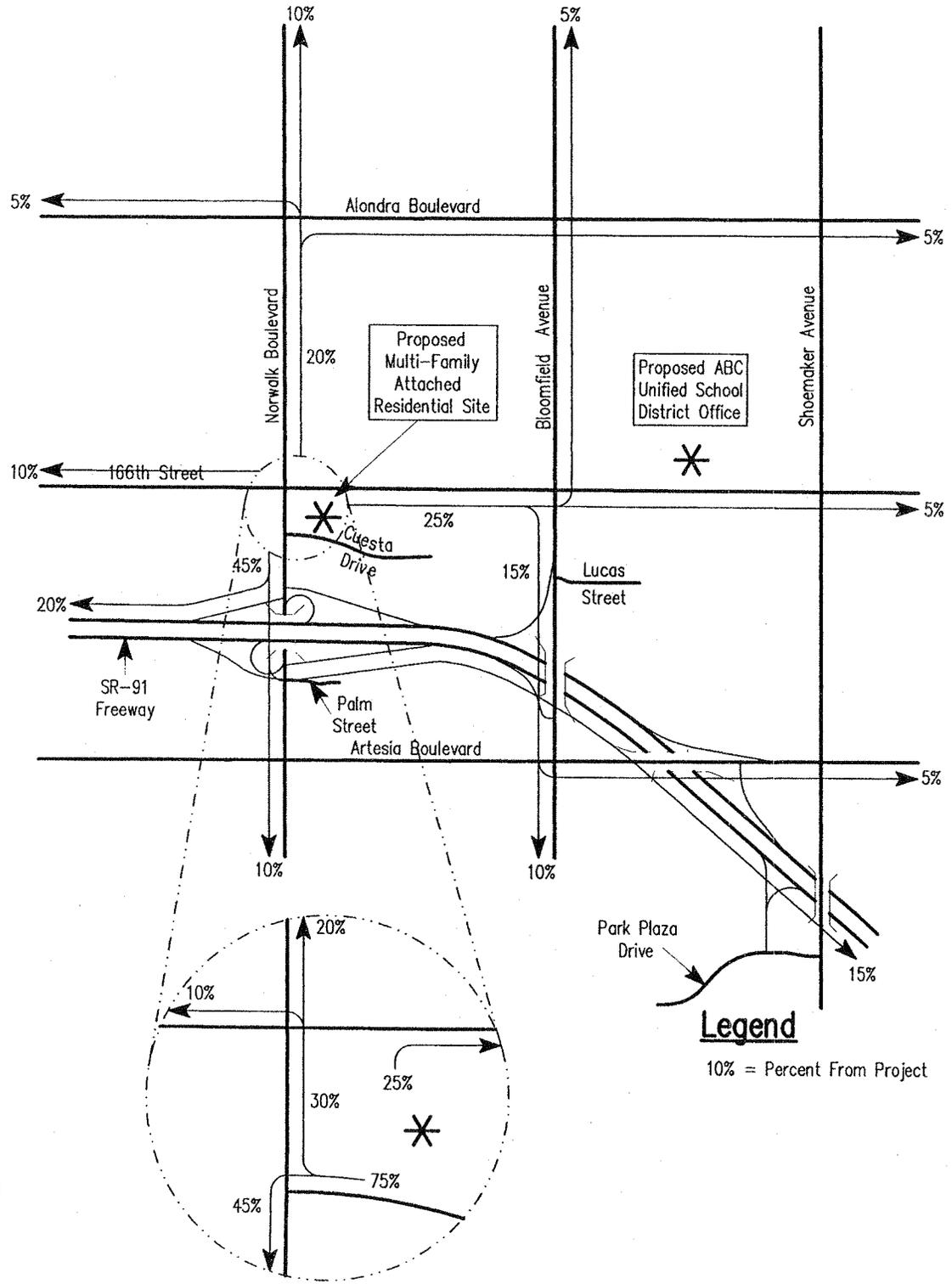
<sup>1</sup> EMP = Employees; DU = Dwelling Unit; TSF = Thousand Square Feet

<sup>2</sup> Source: See Table 3.

<sup>3</sup> Source: See Table 2.

<sup>4</sup> To provide for a "worst case" scenario, it has been assumed that the existing light industrial building on the relocation site will be replaced by the kitchen facility currently located on the project site.

# Figure 10 Project Outbound Traffic Distribution



**Legend**  
10% = Percent From Project

# Figure 11 Project Inbound Traffic Distribution

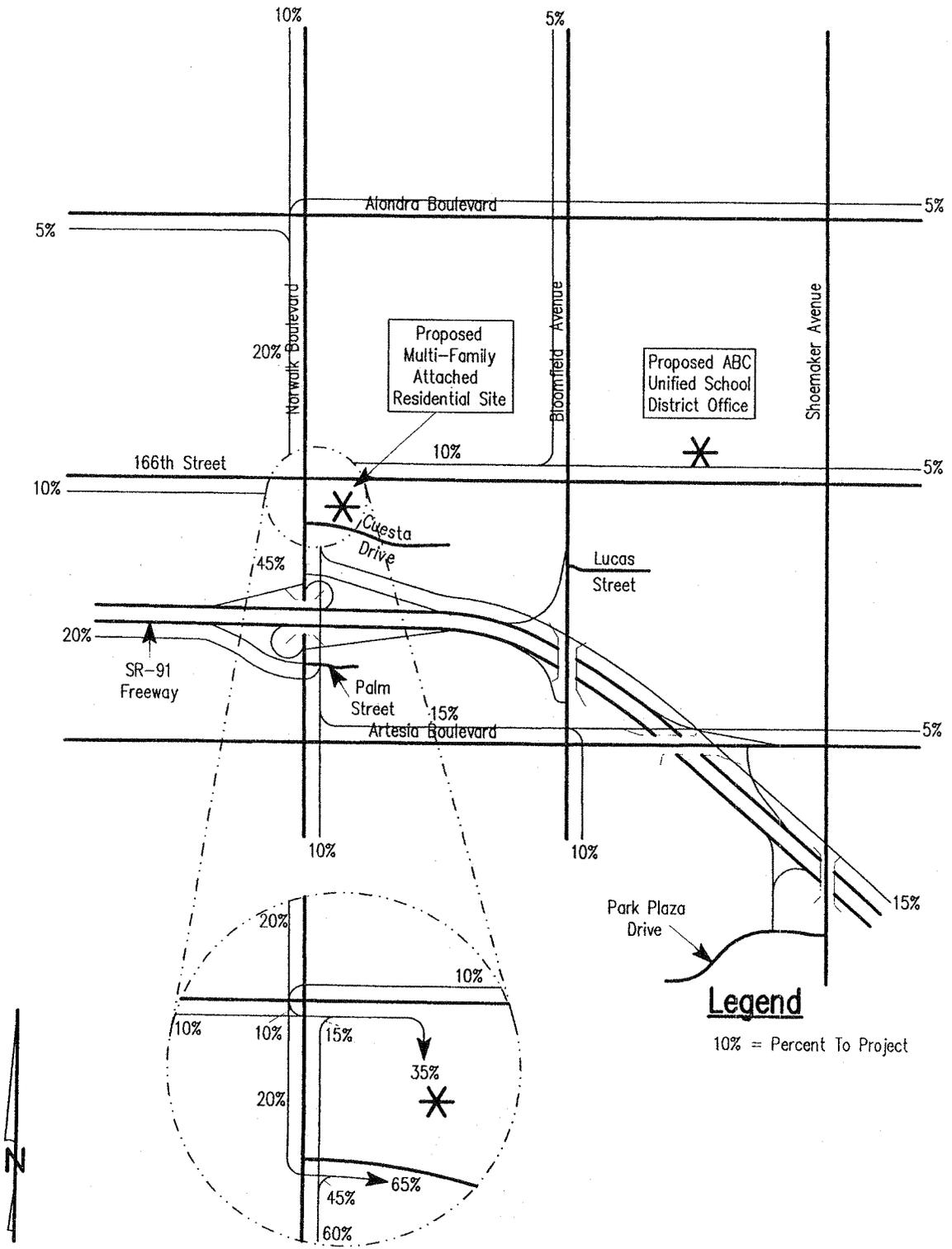
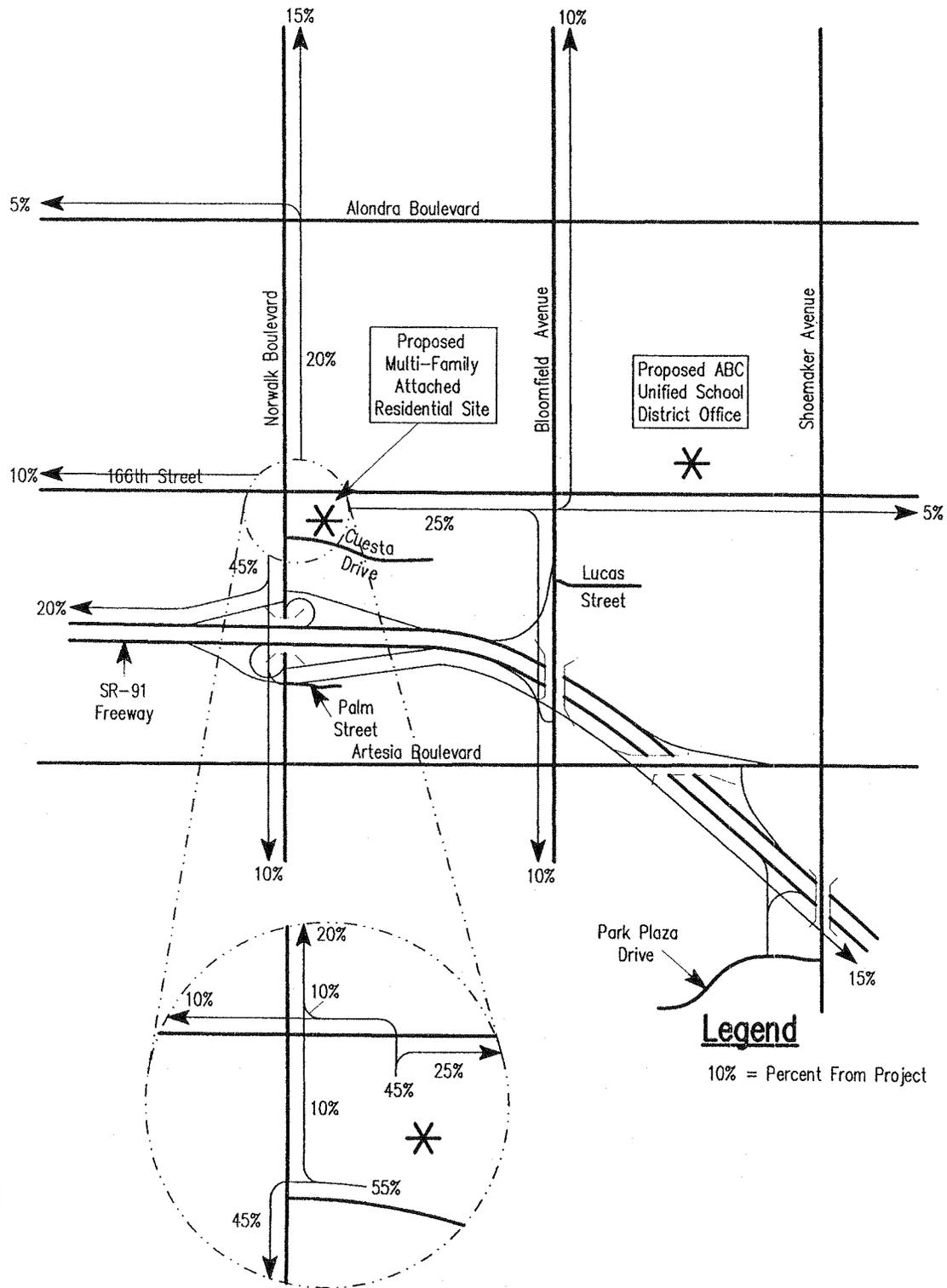
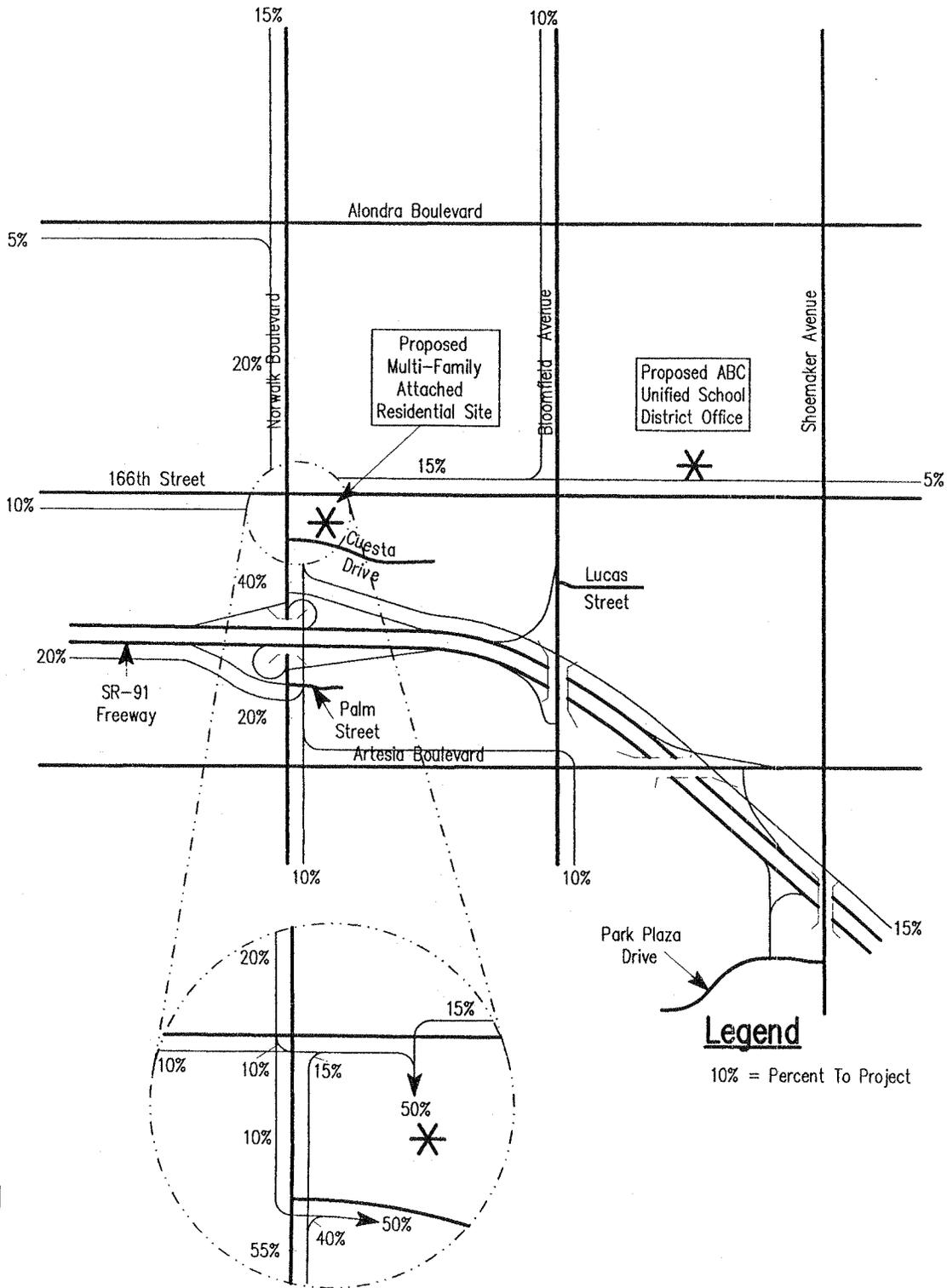


Figure 12  
Existing ABC Unified School District Outbound Traffic Distribution

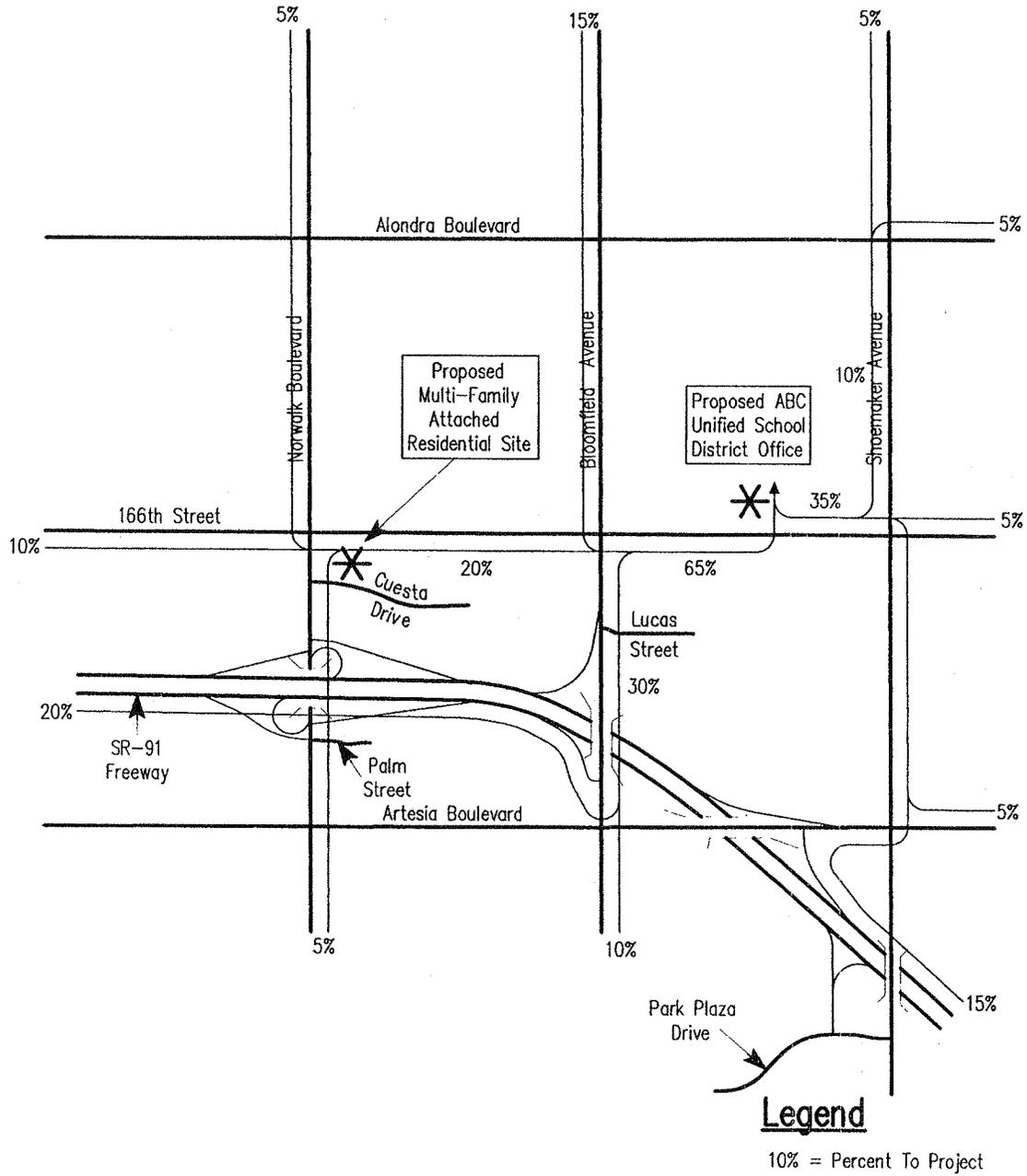


**Figure 13**  
**Existing ABC Unified School District Inbound Traffic Distribution**





**Figure 15**  
**Existing Office Building at 12881 166th Street**  
**Inbound Traffic Distribution**



**Figure 16**  
**Proposed ABC Unified School District Office Outbound Traffic Distribution**

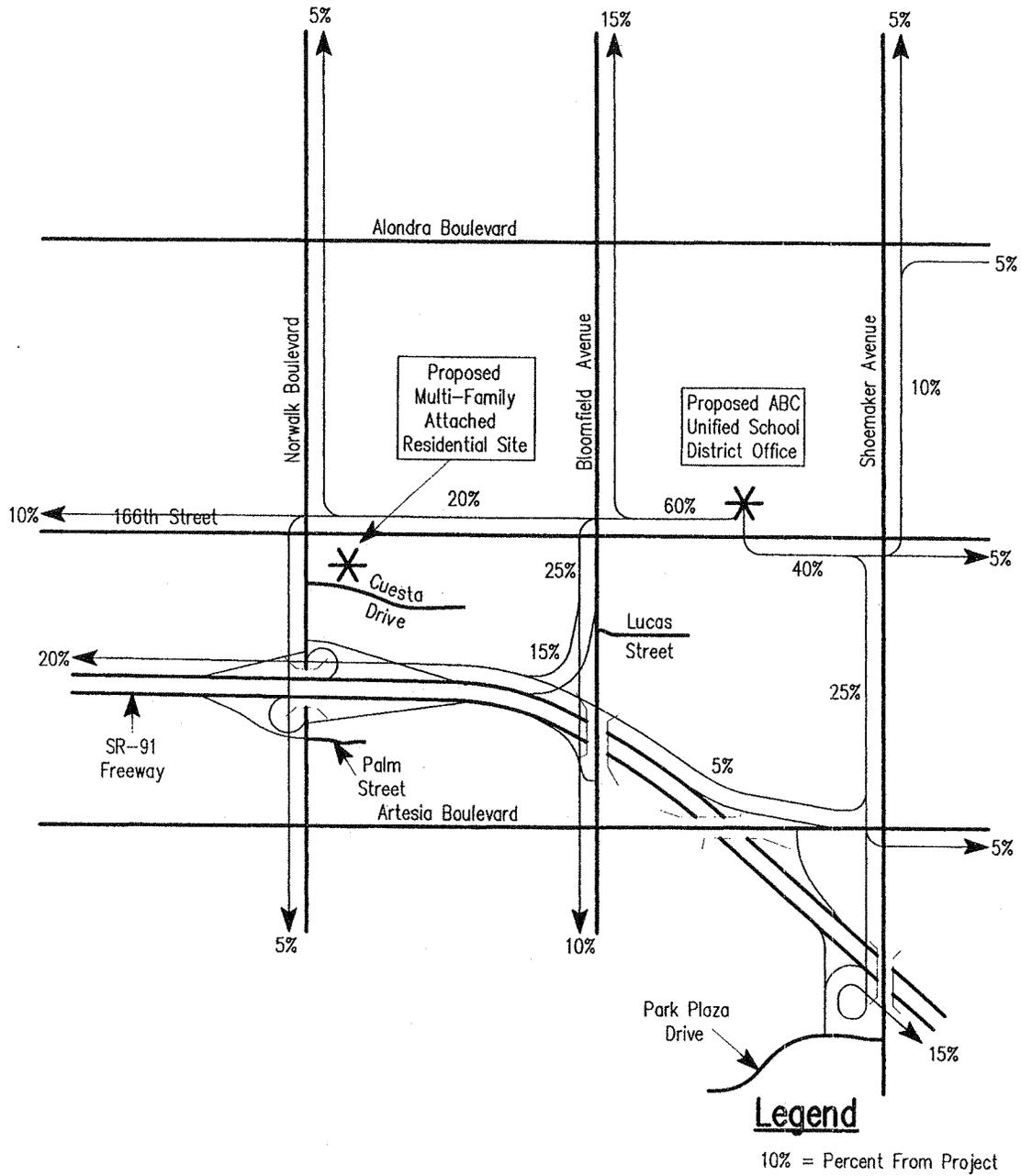


Figure 17  
 Proposed ABC Unified School District Office Inbound Traffic Distribution

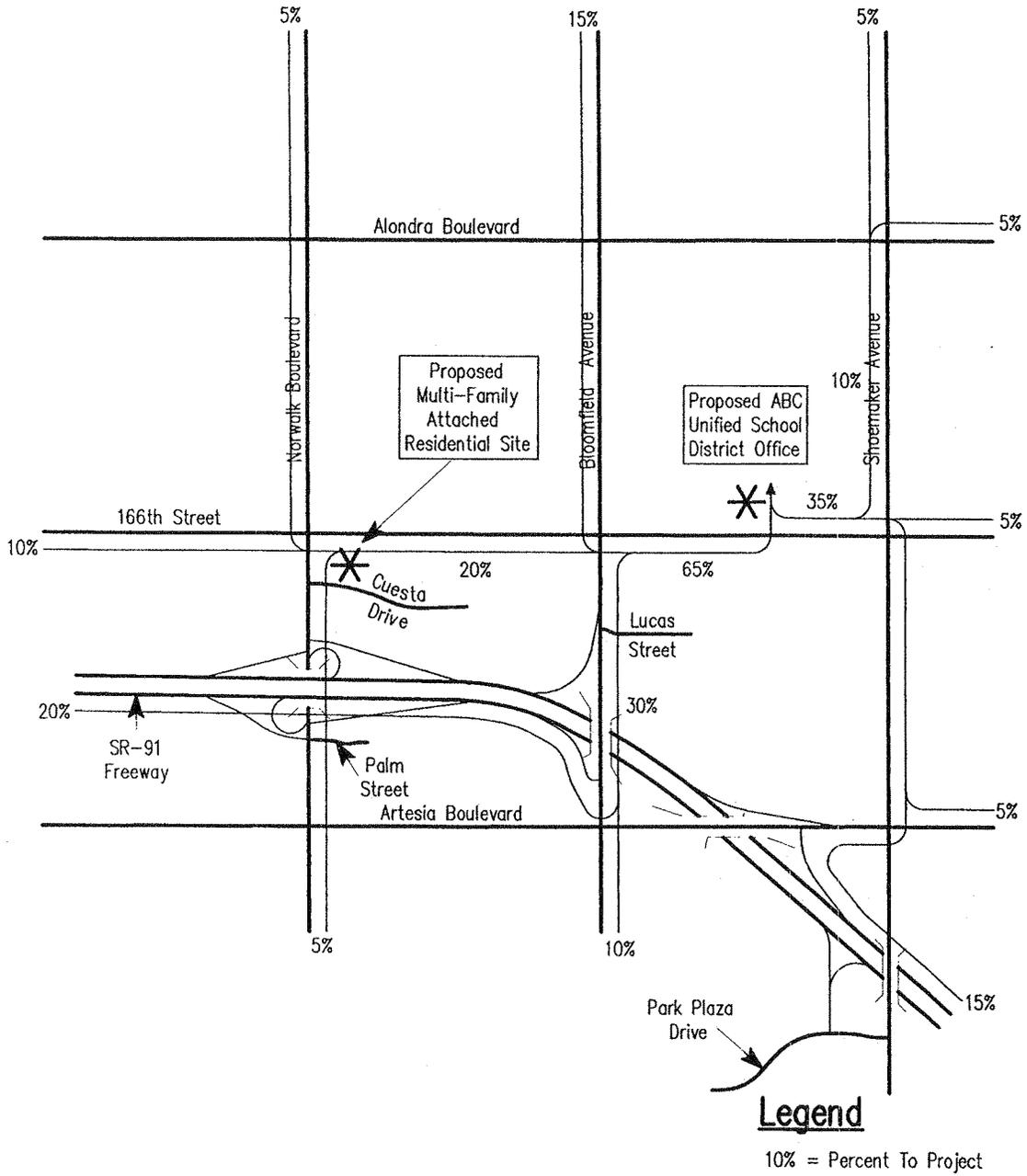
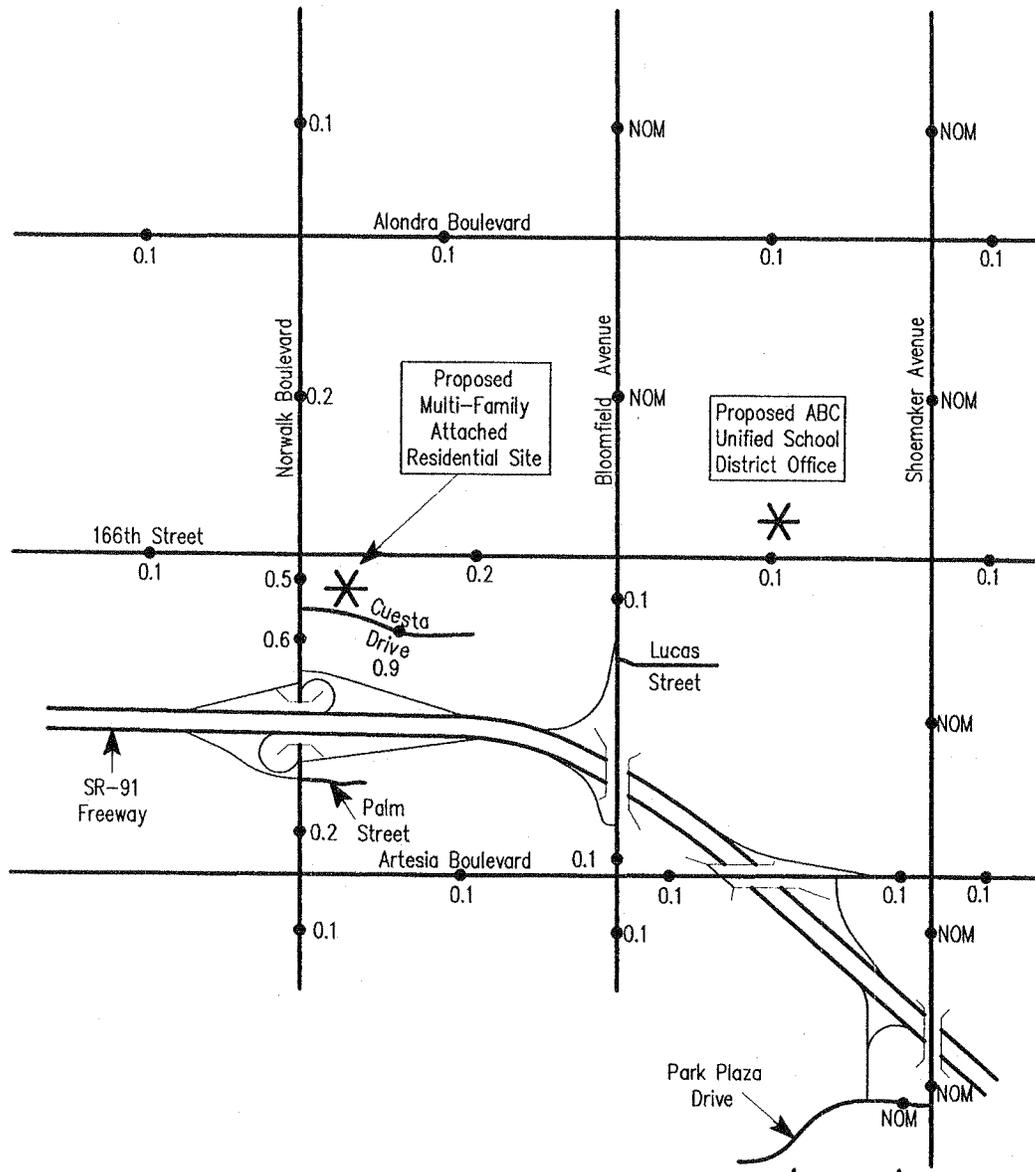


Figure 18  
Project Average Daily Traffic Volumes



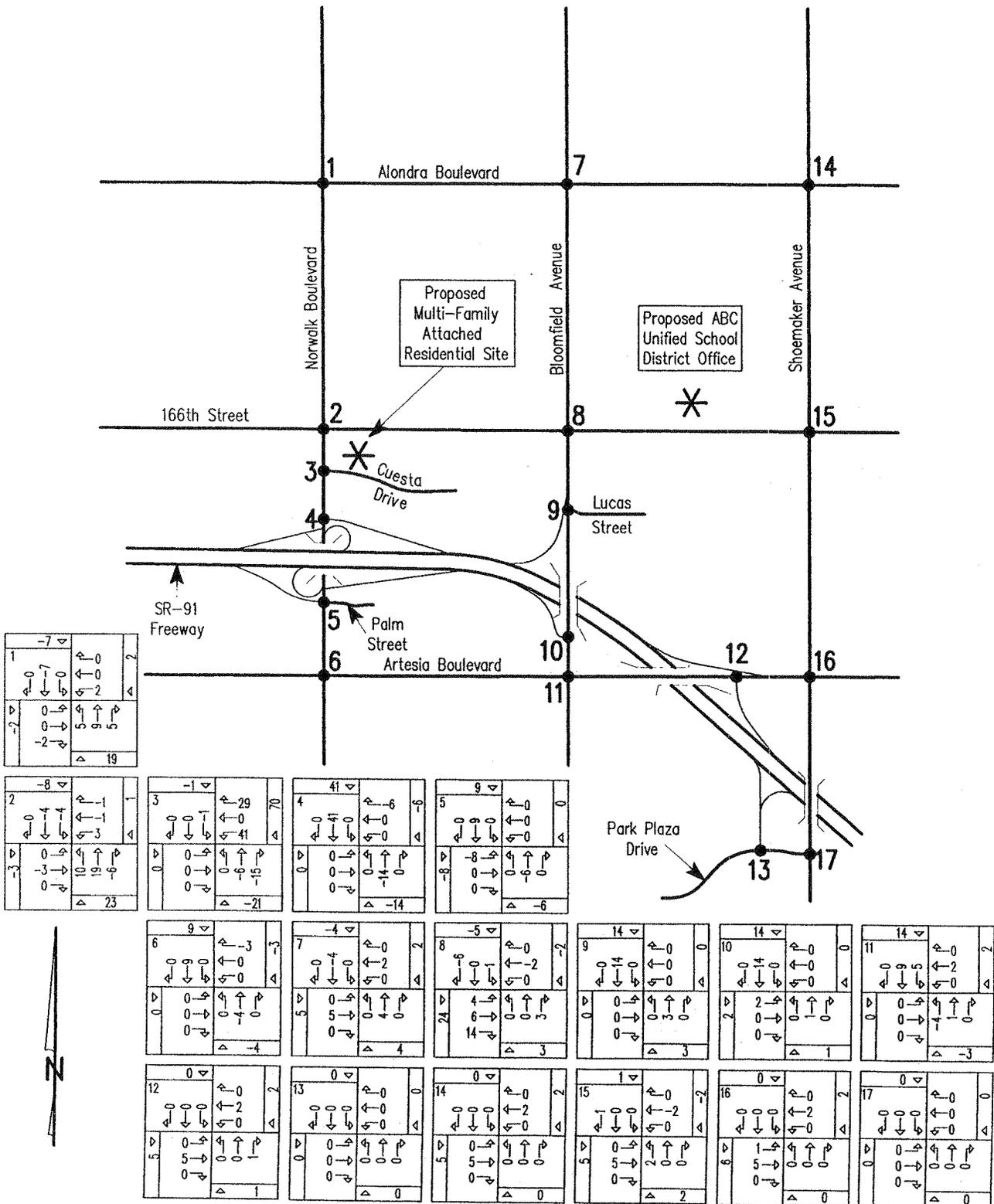
**Legend**

- 0.1 = Vehicles Per Day (1000's)
- NOM = Nominal, Less Than 50 Vehicles Per Day



# Figure 19

## Project Morning Peak Hour Intersection Turning Movement Volumes



Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3652b/bbas



## **VI. Opening Year (2011) Traffic Conditions**

---

In this section, Opening Year (2011) traffic conditions without and with the project are discussed. Figures 21 to 26 depict the Opening Year (2011) traffic conditions.

### **A. Method of Projection**

To assess Opening Year (2011) traffic conditions, project traffic is combined with existing traffic, other development and areawide growth. Pursuant to discussions with City of Cerritos staff, there currently are not any approved developments in the study area. An areawide growth rate has been utilized to account for areawide growth on study area roadways. Opening Year (2011) traffic volumes have been calculated based on a 0.30 percent annual growth rate of existing traffic volumes over a four (4) year period. The areawide growth rate has been obtained from previous traffic studies in the City of Cerritos.

### **B. Opening Year (2011) Average Daily Traffic Volumes**

Opening Year (2011) without project average daily traffic volumes are as illustrated on Figure 21 and the Opening Year (2011) with project average daily traffic volumes are as illustrated on Figure 22.

### **C. Opening Year (2011) Levels of Service**

The technique used to assess the operation of an intersection is known as Intersection Capacity Utilization, as described in Appendix C. To calculate an Intersection Capacity Utilization value, the volume of traffic using the intersection is compared with the capacity of the intersection. An Intersection Capacity Utilization value is usually expressed as a percent. The percent represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The Intersection Capacity Utilization's for the Opening Year (2011) without project traffic conditions have been calculated and are shown in Table 5. Opening Year (2011) without project morning and evening peak hour intersection turning movement volumes are shown on Figures 23 and 24, respectively. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2011) without project traffic conditions (see Table 5). Opening Year (2011) without project Intersection Capacity Utilization worksheets are provided in Appendix C.

The Intersection Capacity Utilization's for the Opening Year (2011) with project traffic conditions have been calculated and are shown in Table 6. Opening Year (2011) with project morning and evening peak hour

intersection turning movement volumes are shown on Figures 25 and 26, respectively. The study area intersections are projected to operate at Level of Service D or better during the peak hours for Opening Year (2011) with project traffic conditions (see Table 6). Opening Year (2011) with project Intersection Capacity Utilization worksheets are provided in Appendix C.

**D. Significant Transportation Impact**

In the City of Cerritos, the impact is considered significant if the project related increase in the volume to capacity ratio equals or exceeds the thresholds shown below:

Significant Impact Threshold for Intersections		
Level of Service	Volume/Capacity	Incremental Increase
C	0.71-0.80	0.04 or more
D	0.81-0.90	0.02 or more
E/F	0.91 - more	0.01 or more

Table 7 depicts the Opening Year (2011) project traffic contribution at the study area intersections. The study area intersections are not significantly impacted by the project (see Table 7).

Table 5

Opening Year (2011) Without Project Intersection Capacity Utilization and Level of Service

Intersection	Traffic Control <sup>2</sup>	Intersection Approach Lanes <sup>1</sup>												Peak Hour	
		Northbound			Southbound			Eastbound			Westbound			Level of Service	
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Norwalk Boulevard (NS) at:															
Alondra Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.781-C	0.708-C
166th Street (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.616-B	0.628-B
Cuesta Drive (EW)	TS	0	2	0	1	2	0	0	0	0	1	0	1	0.661-B	0.549-A
SR-91 Freeway WB Off Ramp (EW)	TS	0	2	0	0	2	0	0	0	0	1	0	1	0.496-A	0.475-A
SR-91 Freeway EB Off Ramp/Lucas Street (EW)	TS	0	2	0	1	2	0	1	1	0	1	0	1	0.626-B	0.704-C
Artesia Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.783-C	0.833-D
Bloomfield Avenue (NS) at:															
Alondra Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	0.467-A	0.649-B
166th Street (EW)	TS	1	2	1	1	2	1	1	2	0	1	2	0	0.654-B	0.737-C
SR-91 Freeway WB On Ramp/Palm Street (EW)	TS	1	2	1	1	2	0	0	0	0	0	1	0	0.518-A	0.571-A
SR-91 Freeway EB Off Ramp (EW)	TS	0	2	0	0	2	0	1	0	1	0	0	0	0.666-B	0.737-C
Artesia Boulevard (EW)	TS	1	2	0	2	3	0	1	2	1	2	2	0	0.695-B	0.794-C
SR-91 Freeway WB Off Ramp (NS) at:															
Artesia Boulevard (EW)	TS	1	0	1	0	0	0	0	2	0	0	2	0	0.511-A	0.775-C
SR-91 Freeway EB Ramps (NS) at:															
Park Plaza Drive (EW)	TS	0	0	0	1.5	0	1.5	2	2	0	0	3	1	0.374-A	0.480-A
Shoemaker Avenue (NS) at:															
Alondra Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.442-A	0.533-A
166th Street (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.493-A	0.624-B
Artesia Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.639-B	0.872-D
Park Plaza Drive (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	0.437-A	0.616-B

<sup>1</sup> When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

<sup>2</sup> TS = Traffic Signal

Table 6

Opening Year (2011) With Project Intersection Capacity Utilization and Level of Service

Intersection	Traffic Control <sup>2</sup>	Intersection Approach Lanes <sup>1</sup>												Peak Hour	
		Northbound			Southbound			Eastbound			Westbound			Level of Service	
		L	T	R	L	T	R	L	T	R	L	T	R	Morning	Evening
Norwalk Boulevard (NS) at:															
Alondra Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.787-C	0.713-C
166th Street (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.622-B	0.647-B
Cuesta Drive (EW)	TS	0	2	0	1	2	0	0	0	0	1	0	1	0.679-B	0.570-A
SR-91 Freeway WB Off Ramp (EW)	TS	0	2	0	0	2	0	0	0	0	1	0	1	0.496-A	0.494-A
SR-91 Freeway EB Off Ramp/Palm Street (EW)	TS	0	2	0	1	2	0	1	1	0	1	0	1	0.627-B	0.720-C
Artesia Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.785-C	0.833-D
Bloomfield Avenue (NS) at:															
Alondra Boulevard (EW)	TS	1	2	1	1	2	1	1	2	1	1	2	1	0.470-A	0.652-B
166th Street (EW)	TS	1	2	1	1	2	1	1	2	0	1	2	0	0.661-B	0.740-C
SR-91 Freeway WB On Ramp/Lucas Street (EW)	TS	1	2	1	1	2	0	0	0	0	0	1	0	0.519-A	0.572-A
SR-91 Freeway EB Off Ramp (EW)	TS	0	2	0	0	2	0	1	0	1	0	0	0	0.667-A	0.738-C
Artesia Boulevard (EW)	TS	1	2	0	2	3	0	1	2	1	2	2	0	0.697-B	0.796-C
SR-91 Freeway WB Off Ramp (NS) at:															
Artesia Boulevard (EW)	TS	1	0	1	0	0	0	0	2	0	0	2	0	0.513-A	0.776-C
SR-91 Freeway EB Ramps (NS) at:															
Park Plaza Drive (EW)	TS	0	0	0	1.5	0	1.5	2	2	0	0	3	1	0.374-A	0.482-A
Shoemaker Avenue (NS) at:															
Alondra Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.443-A	0.535-A
166th Street (EW)	TS	1	2	0	1	2	0	1	2	0	1	2	0	0.493-A	0.627-B
Artesia Boulevard (EW)	TS	1	2	0	1	2	0	1	2	1	1	2	1	0.640-B	0.875-D
Park Plaza Drive (EW)	TS	1	2	0	0	2	1	2	0	1	0	0	0	0.437-A	0.618-B

<sup>1</sup> When a right turn lane is designated, the lane can either be striped or unstriped. To function as a right turn lane, there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right

<sup>2</sup> TS = Traffic Signal

Table 7

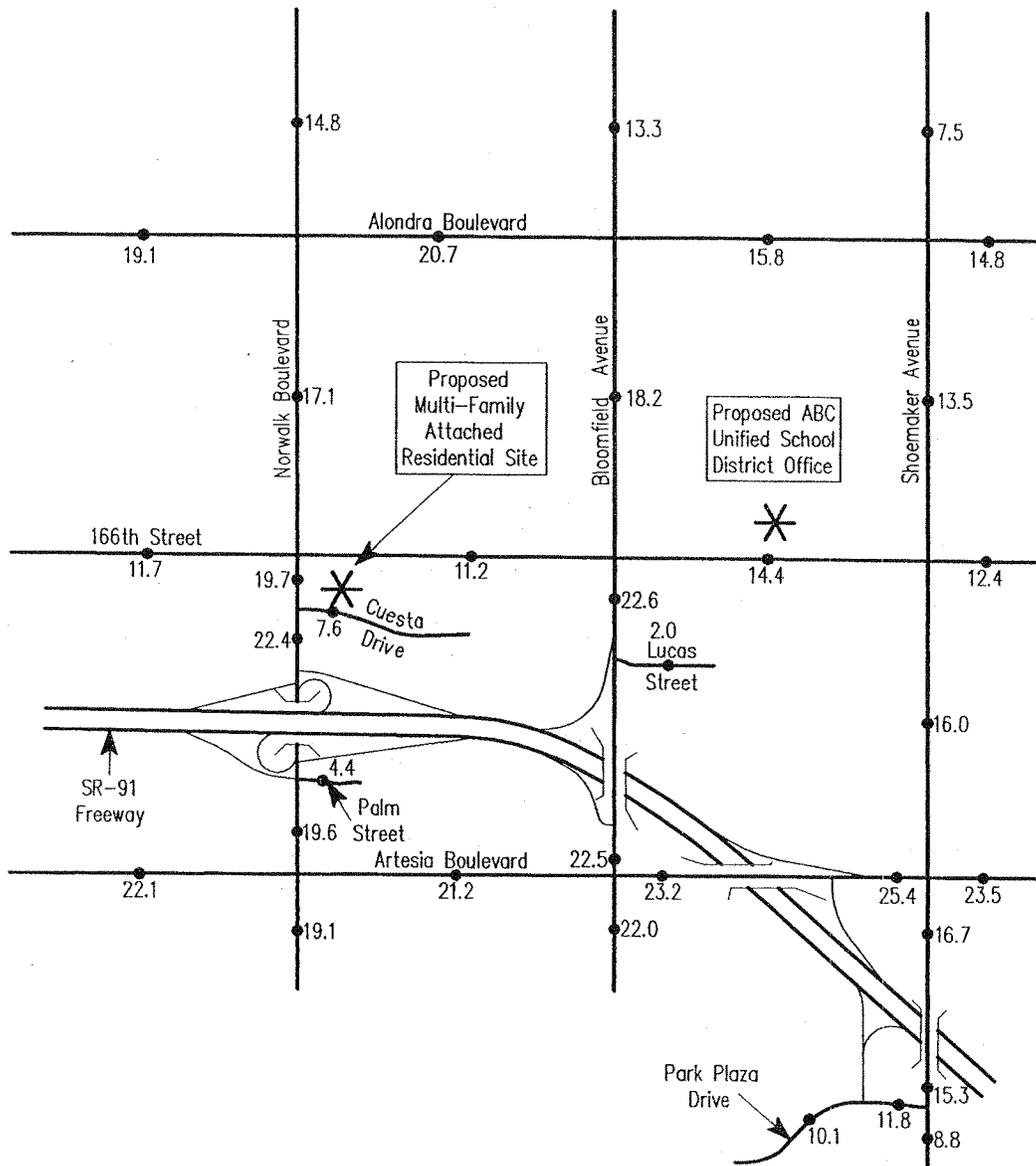
Project Traffic Contribution

Intersection	Peak Hour	Opening Year (2011)		Opening Year (2011) With Project								
		Without Project		Without Mitigation				With Mitigation				
		Intersection Capacity Utilization	Level of Service	Intersection Capacity Utilization	Level of Service	Project Impact	Significant Impact <sup>1</sup>	Intersection Capacity Utilization	Level of Service	Project Impact	Significant Impact	
Norwalk Boulevard (NS) at:												
Alondra Boulevard (EW)	Morning	0.781	C	0.787	C	0.006	No					
	Evening	0.708	C	0.713	C	0.005	No					
166th Street (EW)	Morning	0.616	B	0.622	B	0.006	No					
	Evening	0.628	B	0.647	B	0.019	No					
Cuesta Drive (EW)	Morning	0.661	B	0.679	B	0.018	No					
	Evening	0.549	A	0.570	A	0.021	No					
SR-91 Freeway WB Off Ramp (EW)	Morning	0.496	A	0.496	A	0.000	No					
	Evening	0.475	A	0.494	A	0.019	No					
SR-91 Freeway EB Off Ramp/Palm Street (EW)	Morning	0.626	B	0.627	B	0.001	No					
	Evening	0.704	C	0.720	C	0.016	No					
Artesia Boulevard (EW)	Morning	0.783	C	0.785	C	0.002	No					
	Evening	0.833	D	0.833	D	0.000	No					
Bloomfield Avenue (NS) at:												
Alondra Boulevard (EW)	Morning	0.467	A	0.470	A	0.003	No					
	Evening	0.649	B	0.652	B	0.003	No					
166th Street (EW)	Morning	0.654	B	0.661	B	0.007	No					
	Evening	0.737	C	0.740	C	0.003	No					
SR-91 Freeway WB On Ramp/Lucas Street (EW)	Morning	0.518	A	0.519	A	0.001	No					
	Evening	0.571	A	0.572	A	0.001	No					
SR-91 Freeway EB Off Ramp (EW)	Morning	0.666	B	0.667	B	0.001	No					
	Evening	0.737	C	0.738	C	0.001	No					
Artesia Boulevard (EW)	Morning	0.695	B	0.697	B	0.002	No					
	Evening	0.794	C	0.796	C	0.002	No					
SR-91 Freeway WB Off Ramp (NS) at:												
Artesia Boulevard (EW)	Morning	0.511	A	0.513	A	0.002	No					
	Evening	0.775	C	0.776	C	0.001	No					
SR-91 Freeway EB Ramps (NS) at:												
Park Plaza Drive (EW)	Morning	0.374	A	0.374	A	0.000	No					
	Evening	0.480	A	0.482	A	0.002	No					
Shoemaker Avenue (NS) at:												
Alondra Boulevard (EW)	Morning	0.442	A	0.443	A	0.001	No					
	Evening	0.533	A	0.535	A	0.002	No					
166th Street (EW)	Morning	0.493	A	0.493	A	0.000	No					
	Evening	0.624	B	0.627	B	0.003	No					
Artesia Boulevard (EW)	Morning	0.639	B	0.640	B	0.001	No					
	Evening	0.872	D	0.875	D	0.003	No					
Park Plaza Drive (EW)	Morning	0.437	A	0.437	A	0.000	No					
	Evening	0.616	B	0.618	B	0.002	No					

<sup>1</sup> In the City of Cerritos, impact is considered significant if the project related increase in the volume to capacity ratio equals or exceeds the thresholds shown below:

Significant Impact Threshold for Intersections		
Level of Service	Volume/Capacity	Incremental Increase
C	0.71-0.80	0.04 or more
D	0.81-0.90	0.02 or more
E/F	0.91-more	0.01 or more

Figure 21  
 Opening Year (2011) Without Project Average Daily Traffic Volumes



**Legend**  
 10.1 = Vehicles Per Day (1000's)

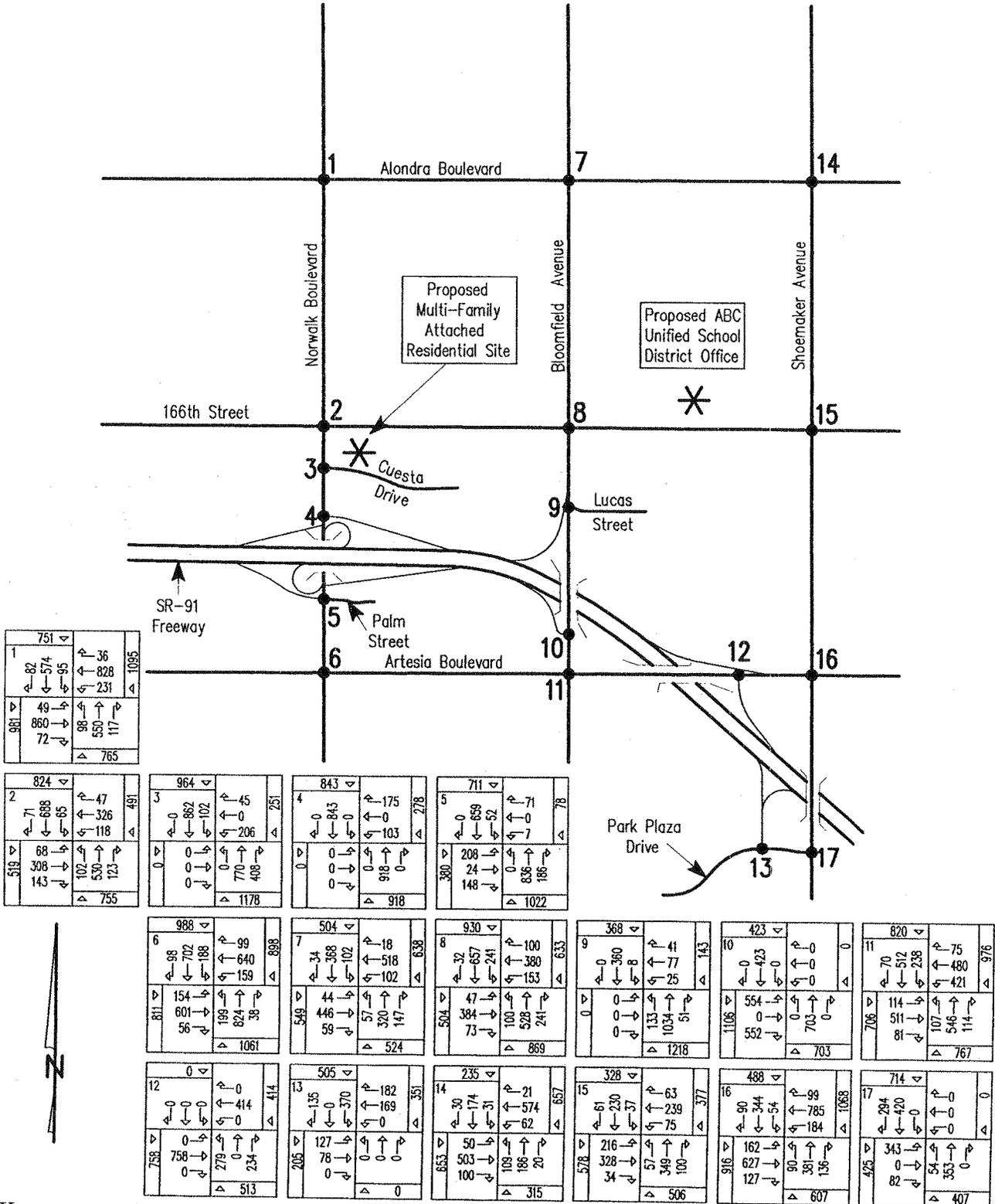




# Figure 23

## Opening Year (2011) Without Project

### Morning Peak Hour Intersection Turning Movement Volumes



Kunzman Associates

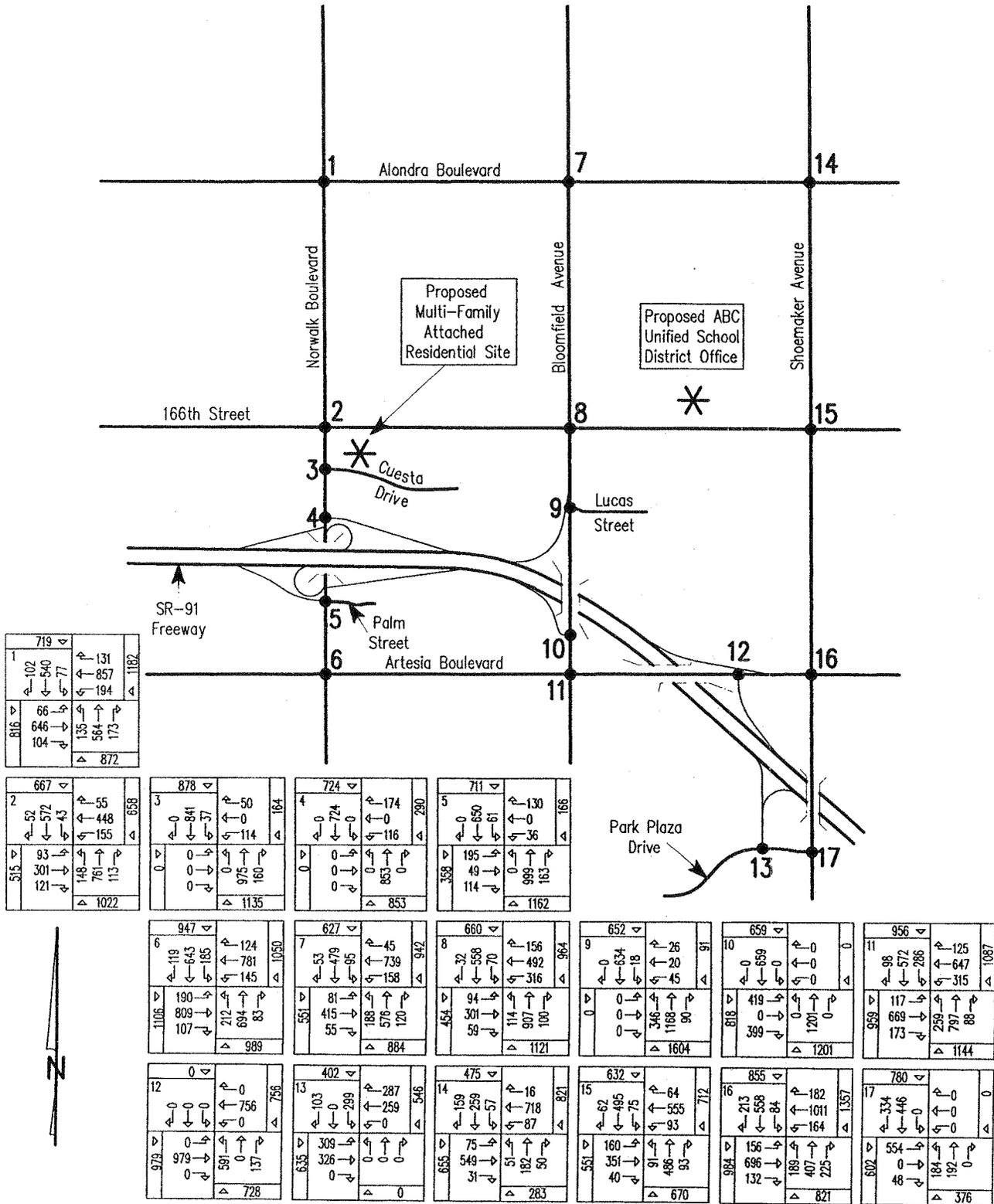
Intersection reference numbers are in upper left corner of turning movement boxes.

3652b/bbas

# Figure 24

## Opening Year (2011) Without Project

### Evening Peak Hour Intersection Turning Movement Volumes



Kunzman Associates

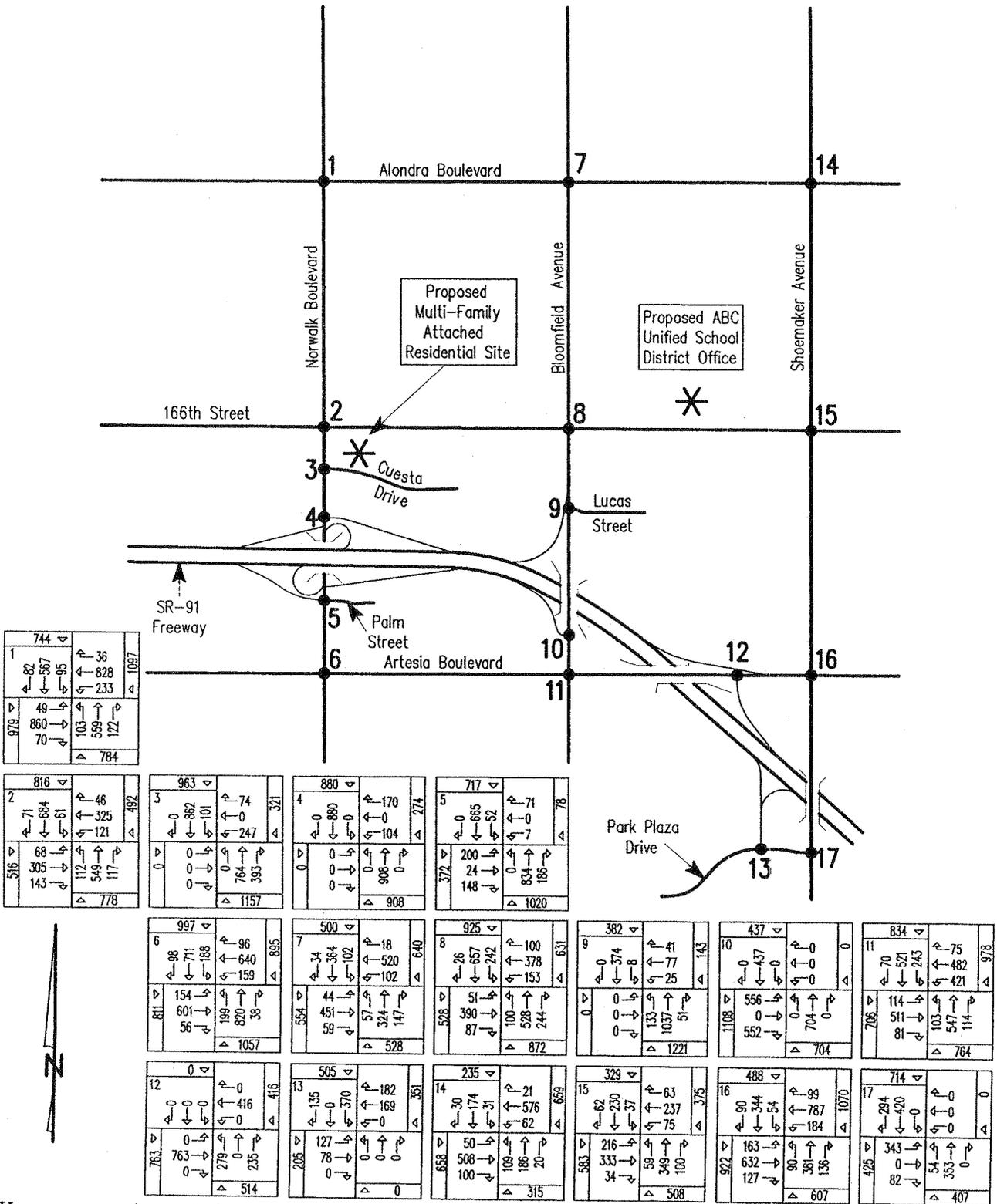
Intersection reference numbers are in upper left corner of turning movement boxes.

3652b/bbas

# Figure 25

## Opening Year (2011) With Project

### Morning Peak Hour Intersection Turning Movement Volumes

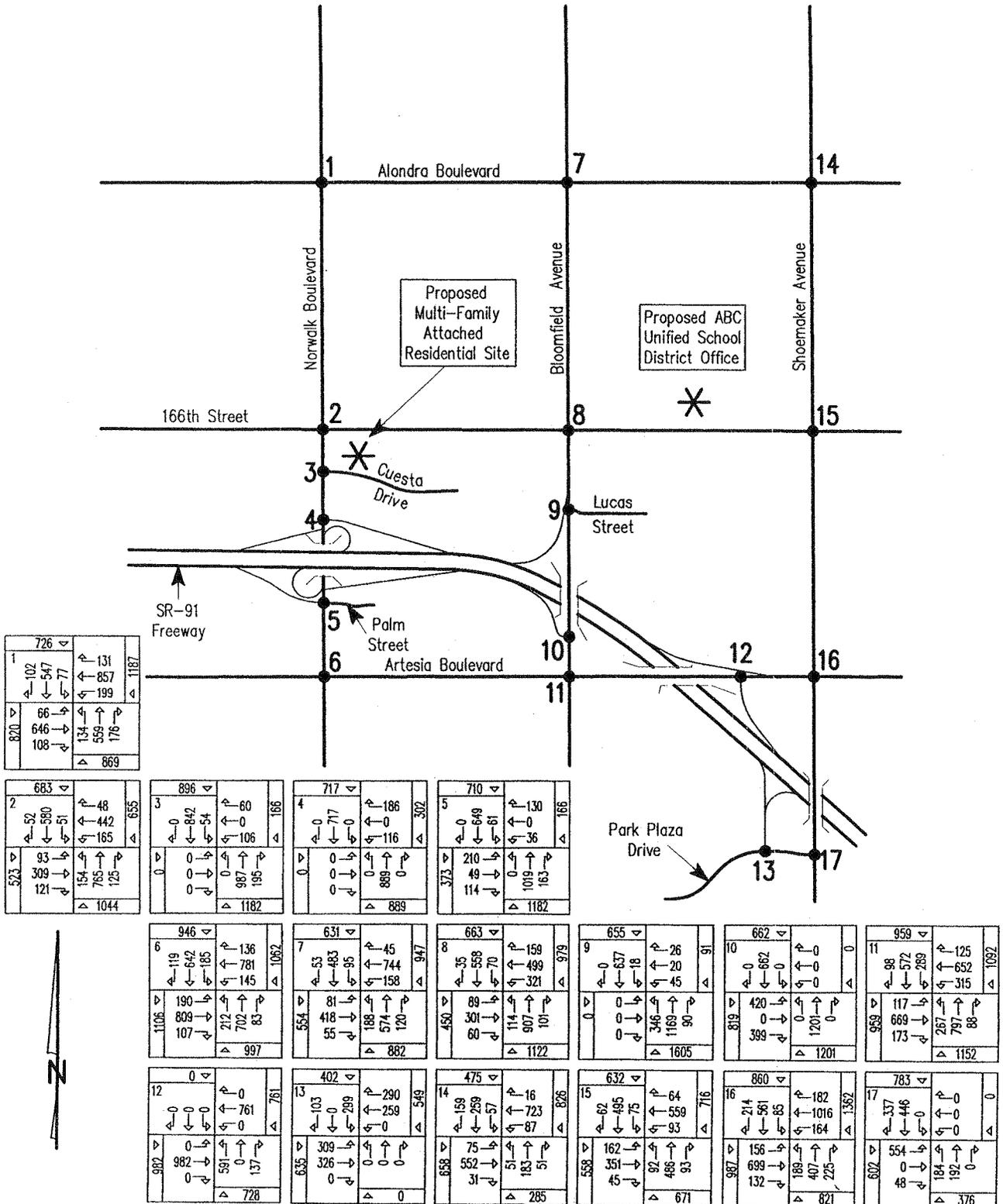


Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3652b/bbas

# Figure 26 Opening Year (2011) With Project Evening Peak Hour Intersection Turning Movement Volumes



Kunzman Associates

Intersection reference numbers are in upper left corner of turning movement boxes.

3652b/bbas

## VII. Recommendations

---

### A. Site Access

The Norwalk Boulevard/166th Street project site is currently used by the ABC Unified School District as their district offices. The building located at 12881 166th Street is currently an office building. The project site currently has access to Norwalk Boulevard, Cuesta Drive, and 166th Street.

### B. Roadway Improvements

#### 1. On- Site

Site-specific circulation and access recommendations are depicted on Figure 27.

Sufficient on-site parking shall be provided to meet Los Angeles County parking code requirements.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of Cerritos standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

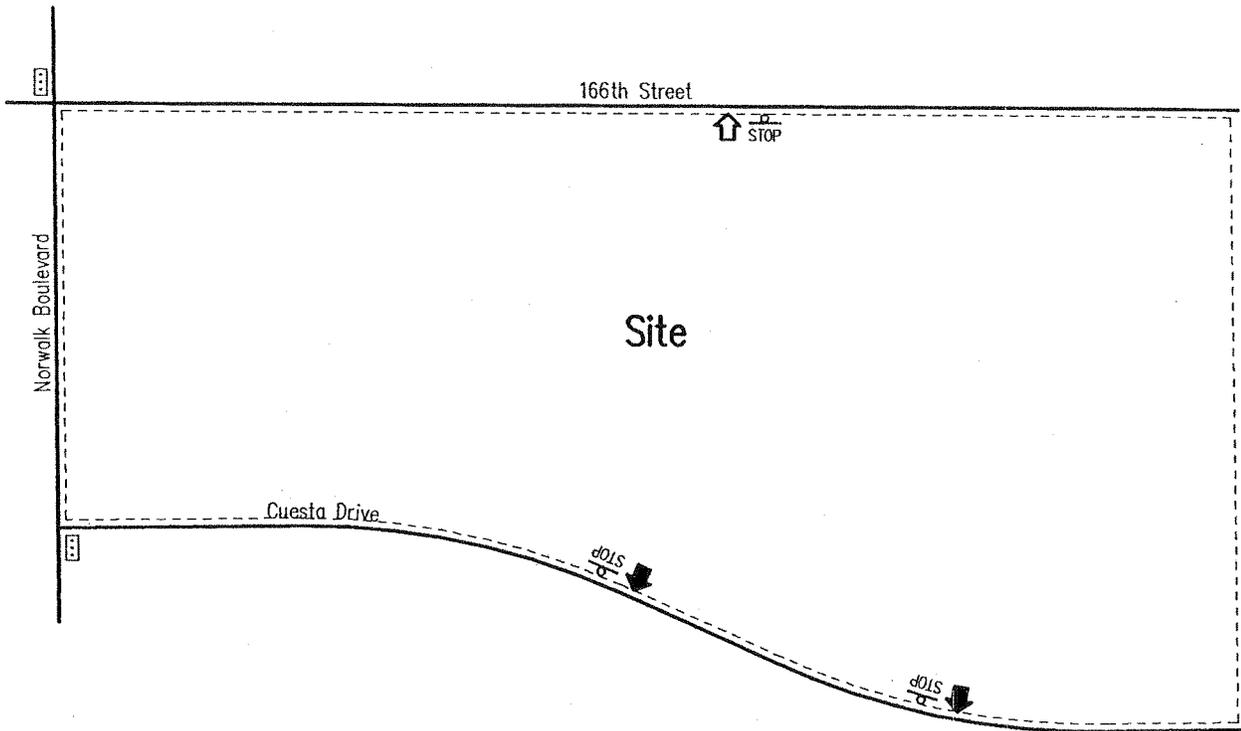
On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

#### 2. Off-Site

The study area intersections are not significantly impacted by the project (see Table 7).

As is the case for any roadway design, the City of Cerritos should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

# Figure 27 Circulation Recommendations



Sufficient on-site parking shall be provided to meet City of Cerritos parking code requirements.

Sight distance at each project access should be reviewed with respect to California Department of Transportation/City of Cerritos standards in conjunction with the preparation of final grading, landscaping, and street improvement plans.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the project.

As is the case for any roadway design, the City of Cerritos should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.



### Legend

- = Traffic Signal
- = Stop Sign
- = Full Access Driveway
- = Right Turns In/Out Only Access Driveway

## **Appendices**

---

**Appendix A – Glossary of Transportation Terms**

**Appendix B – Traffic Count Worksheets**

**Appendix C – Explanation and Calculation of Intersection Capacity  
Utilization**

**Appendix D – Cerritos Affordable Housing Communities Tube Count  
Worksheets**