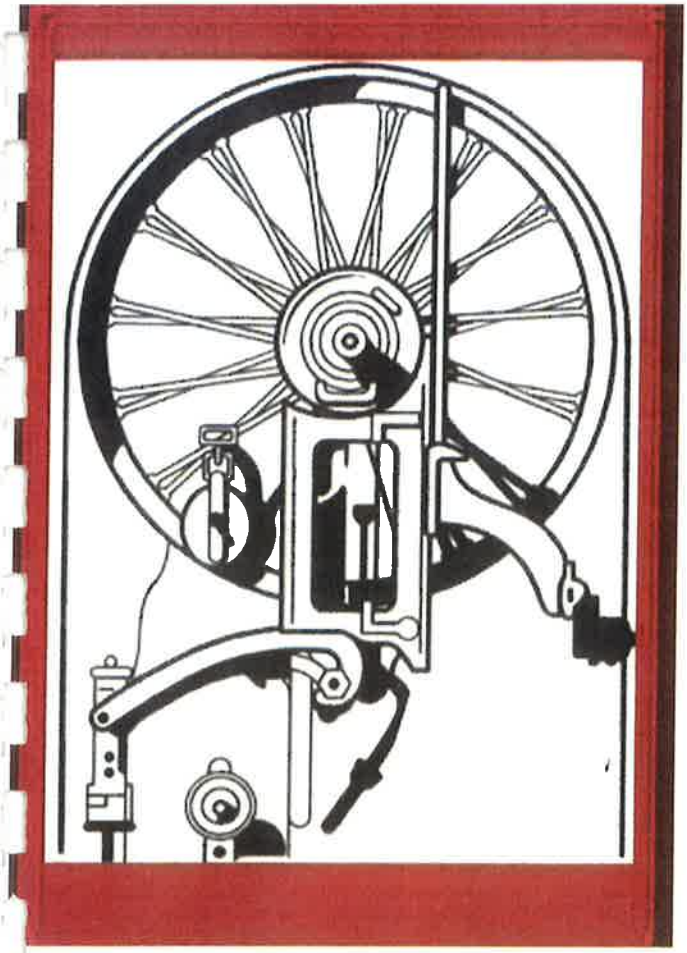

Initial Study / Mitigated Negative Declaration

GANAHL LUMBER
Hardware Store and Lumber Yard

Environmental Consultant:

LSA Associates, Inc.

Lead Agency:

City of Costa Mesa
Development Services Dept., 2nd FL
77 Fair Drive Costa Mesa, CA 92626
(714) 754-5245

January 2015

Initial Study/Mitigated Negative Declaration
Ganahl Lumber
Hardware Store and Lumber Yard
1100 South Bristol Street

Lead Agency:
City of Costa Mesa
Development Services
77 Fair Drive
Costa Mesa, California 92626
(714) 754-5245

Claire L. Flynn, AICP, Assistant Development Services Director
Mel Lee, AICP, Senior Planner

Prepared by:
LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614-4731
(949) 553-0666

Ryan Bensley, Senior Environmental Planner
Ashley Davis, Principal in Charge

January 2015

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NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

To: X
Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

X
County Clerk
County of Orange
P. O. Box 22013
Santa Ana, CA 92702

From:
City of Costa Mesa
Development Services
77 Fair Drive
Costa Mesa, CA 92626

Date: January 22, 2015
TO: Interested Agencies, Organizations, and Individuals

NOTICE IS HEREBY GIVEN that pursuant to Section 15072 of the State CEQA Guidelines, the City of Costa Mesa hereby gives notice that a Draft Mitigated Negative Declaration (MND) for the Ganahl Lumber Costa Mesa Relocation Project is available for review and comment.

PROJECT TITLE: Ganahl Lumber Costa Mesa Relocation Project (Planning Application No. PA-14-40).
PROJECT LOCATION: 1100 South Bristol Street in the City of Costa Mesa on the south side of the juncture of State Route 55 (SR-55) and State Route 73 (SR-73). The proposed project site is not on a list compiled pursuant to Government Code Section 65962.5.

PROJECT DESCRIPTION: The proposed project involves the development of a 6.6 acre vacant lot to accommodate the relocation of the Costa Mesa Ganahl Lumber store to a site owned by the County of Orange and leased to Ganahl Lumber. The development proposal includes the following: (1) Construction of a 65,263 square foot building materials retail store with administrative offices (Main Building A) at a maximum height of 41 feet as measured to the highest point of the proposed elevator equipment structure for the Ganahl Lumber Company; (2) A proposed outdoor storage yard consisting of three sheds (B Shed, Mill Shed, and Pole Shed) totaling 40,925 square feet (sf); (3) Provision of a total of 286 parking spaces on the project site; 108 parking stalls would be provided on the roof of the retail building; and 178 at-grade parking stalls would be provided throughout the project site; (4) Solar photovoltaic panels would be installed on the roof of the retail building at maximum height of 34 feet. (5) Freestanding monument signage at a height of 25 feet. The existing Costa Mesa Ganahl Lumber store is located on an adjacent property to the east and would be closed once the new store is completed. Required discretionary approvals from the City of Costa Mesa include: Development Review and Conditional Use Permit; Variance from front setback requirement (20-foot setback required; 10-foot setback proposed); Variances from maximum building height for the solar canopy, elevator overrun, B-Shed, and roofdeck parking; and Planned Signing Program.

PROJECT IMPACTS: The Initial Study/MND was completed in accordance with the Lead Agency's Guidelines implementing the California Environmental Quality Act. The Initial Study/MND found that the environmental effects from the project would be less than significant with the incorporation of standard conditions and mitigation measures.

PUBLIC REVIEW PERIOD: Begins: January 23, 2015 **Ends:** February 22, 2015

PUBLIC HEARING: A public hearing will be held before the Costa Mesa Planning Commission on February 23, 2015, at 6 p.m. in the City Council Chambers at Costa Mesa City Hall, 77 Fair Drive, Costa Mesa.

The Initial Study/Mitigated Negative Declaration is being circulated for public review and comment for a period of 30 days. Any person may submit written comments to the Planning Division of the City's Development Services Department before the end of the review period. If you challenge the City's action in court you may be limited to raising only those issues you or someone else raised in written correspondence delivered to the Planning Division prior to the end of the review period. Comments may be sent by mail, or faxed to the following address:

Claire Flynn, Asst. Development Services Director
City of Costa Mesa
77 Fair Drive
Costa Mesa, CA 92628

Phone: (714) 754-5278
FAX: (714) 754-4856
claire.flynn@costamesaca.gov

LOCATION WHERE DOCUMENT CAN BE REVIEWED: The Initial Study, Draft MND and supporting documents are available for review and comment during normal business hours at the following locations: (a) City of Costa Mesa, Public Counter, 77 Fair Drive, Costa Mesa, CA, (b) Mesa Verde Library, 2969 Mesa Verde Drive, East, (c) Costa Mesa/Donald Dungan Library, 1855 Park Avenue.

January 19, 2015
Date

Claire L. Flynn
Assistant Development Services Director
City of Costa Mesa

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E: PHASE I ENVIRONMENTAL SITE ASSESSMENT
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INITIAL STUDY/ MITIGATED NEGATIVE DECLARATION

1. **FILE NUMBER(S):**
   Ganahl Hardware Store and Lumber Yard
   Planning Application No. PA-14-40

2. **NAME AND ADDRESS OF APPLICANT:**
   Ganahl Lumber Company
   1220 East Ball Road
   Anaheim, CA 92805

3. **PROJECT LOCATION.:**
   1100 South Bristol Street, Costa Mesa, CA 92626
   Assessor Parcel Number 427-363-01

4. **GENERAL PLAN:**
   The 6.6-acre project site is designated as General Commercial on the City's General Plan Land Use Map (2004). The General Commercial land use designation allows a Floor Area Ratio (FAR) between 0.20–0.75 for high to very low traffic uses, respectively. Based on the uses proposed by the Applicant, the maximum FAR for the project site is 0.35. Specified outdoor material storage structures are not included in the FAR calculation for zoning purposes. Allowable uses within the General Commercial designation include a combination of junior department stores and retail clothing stores, theaters, restaurants, hotels and motels, automobile sales and service establishments, markets, drug stores, retail shops, financial institutions, service establishments and support office uses.

5. **ZONING:**
   The 6.6-acre project site has a zoning designation on the City's Zoning Map (2007) of C1-Local Business. The C1-Local Business zoning designation allows a FAR between 0.20–0.75 for high to very low traffic uses, respectively. Based on the uses proposed by the Applicant, the maximum FAR for the project site is 0.35.

6. **PROJECT DESCRIPTION:**
   The Proposed Project includes development of a 6.6-acre vacant lot located at 1100 Bristol Street with a new lumberyard consisting of three sheds (B Shed, Mill Shed, and Pole Shed) totaling 40,925 square feet (sf), a 134 sf Control Building (Security Shack), and a 65,263 sf building materials retail store and offices (Building A) for the Ganahl Lumber Company. A total of 286 parking spaces would be provided on the project site; 108 parking stalls would be provided on the roof of the retail building; and 178 at-grade parking stalls would be provided throughout the project site. Solar photovoltaic panels would be installed on the roof of the retail building. The existing Costa Mesa Ganahl Lumber store is located on an adjacent property to the east and would be closed once the new store is completed.

7. SURROUNDING LAND USES AND SETTING:

The Proposed Project site is located at 1100 South Bristol Street in the City of Costa Mesa on the south side of the juncture of State Route 55 (SR-55) and State Route 73 (SR-73) (see Figure 2.1, Existing Land Uses, located in Section 2.0 of this IS/MND). The 6.6-acre project site is currently vacant, and does not have any existing structures. The site has been improved with a concrete wall, asphalt-paved entrance area, and associated landscaping. The majority of the project site lot is unpaved and is covered with gravel. The Santa Ana Delhi Channel runs underground beneath the central and eastern portion of the project site. Most of the project site is owned by the Orange County Flood Control District (OCFCD), and would be leased by Ganahl Lumber Company. In the past, the County of Orange (County) has used the project site for storage and staging and as an annex area to the nearby County Fairgrounds. The project site is located on Bristol Street, a main arterial tying in major cultural, commercial office, and shopping districts throughout the community. The total area of the project site is 287,696 sf (6.6 acres). The site includes three parcels owned by the OCFCD and two parcels owned by the State of California Department of Transportation (Caltrans) as shown in Table 2.1, Project Site Ownership and Area. Surrounding land uses include: the SR-73 and SR-55 interchange and a Caltrans maintenance facility to the north; SR-73 and the existing Ganahl Lumber Costa Mesa store to the east; commercial (storage facility, restaurant) and multifamily residential land uses to the south; and commercial (offices), single-family residential, and recreation (Santa Ana Country Club) land uses to the west. The existing Ganahl Lumber facility in Costa Mesa was originally part of Barr Lumber, purchased in 1998. It is located immediately to the east of and adjacent to the project site at 1275 Bristol Street. It has a total of 55,540 sf of building/shed area consisting of a 35,650 sf building materials retail store and a 1,637 sf will call storage shed, a 15,905 sf storage shed, and a 2,348 sf mill shed. Access to the existing Ganahl Lumber facility is currently provided via two unsignalized full access driveways along Bristol Street.

8. OTHER PUBLIC AGENCIES WHOSE APPROVAL IS REQUIRED:

City of Costa Mesa Planning Commission
Orange County Flood Control District (OCFCD)
California Department of Transportation (Caltrans)
South Coast Air Quality Management District (SCAQMD)
Regional Water Quality Control Board (RWQCB)

1.0 INTRODUCTION

1.1 PURPOSE OF THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

This purpose of this Initial Study (IS)/Mitigated Negative Declaration (MND) is to evaluate the potential environmental impacts that would occur as a result of construction and the subsequent operation of the Ganahl Hardware Store and Lumber Yard (Proposed Project). The 6.6-acre project site on which the Proposed Project would be built is located at 1100 Bristol Street in the City of Costa Mesa (City), as shown on Figure 2.1, Existing Land Uses, in Section 2 of this IS/MND.

1.1.1 Proposed Project

The Proposed Project is considered a project per the State California Environmental Quality Act (CEQA) Guidelines. The City of Costa Mesa is the Lead Agency for the Proposed Project, and as such, is responsible for the Proposed Project's environmental review and approval of the Proposed Project. Further, Section 21067 of the Public Resources Code defines a Lead Agency as the public agency responsible for carrying out or approving a project that may have potentially significant environmental impacts on the environment. The project Applicant is Ganahl Lumber Company.

As part of the environmental review process for the Proposed Project, the City has authorized the preparation of an IS/MND to assess the project's environmental impacts. The primary purpose of this IS/MND is to disclose the environmental implications of the Proposed Project to the City's decision-makers and to the public.

Although this IS/MND has been prepared with the assistance of a consultant, the analysis, conclusions, and findings herein are representative of the City's position, in its capacity as the Lead Agency for the Proposed Project. Based on the IS/MND, the City has determined that with the incorporation of mitigation, the Proposed Project will not have a significant effect on the environment.

This IS/MND and an associated Notice of Intent (NOI) will be forwarded to all applicable responsible agencies, trustee agencies, and the public for review and comment for a period of 30 days to allow these entities and other parties to comment on the Proposed Project and the findings in the IS/MND.

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2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND ENVIRONMENTAL SETTING

2.1.1 Surrounding Land Uses

The project site is located at 1100 South Bristol Street in the City of Costa Mesa (City) on the south side of the juncture of State Route 55 (SR-55) and State Route 73 (SR-73). Refer to Figure 2.1, Existing Land Uses, for the location of the project site. The project site is located on Bristol Street, a main arterial tying in major cultural, commercial office, and shopping districts throughout the community. Surrounding land uses include: the SR-73 and SR-55 interchange and a State of California Department of Transportation (Caltrans) maintenance facility to the north; SR-73 and the existing Ganahl Lumber Costa Mesa store to the east; commercial (storage facility, restaurant) and multifamily residential land uses to the south; and commercial (offices), single-family residential, and recreation (Santa Ana Country Club) land uses to the west.

2.1.2 Existing Site

The project site totals 6.6 acres and is currently vacant. The project site does not currently have any existing built structures. The site has been improved with a concrete wall, asphalt-paved entrance area, and associated landscaping. The majority of the project site lot is unpaved and is covered with gravel. The Santa Ana Delhi Channel runs underground beneath the central and eastern portion of the project site. Most of the project site is owned by the Orange County Flood Control District (OCFCD), and would be leased by Ganahl Lumber Company. In the past, the County of Orange (County) has used the project site for storage and staging and as an annex area to the nearby County Fairgrounds. The total area of the site is 287,696 square feet (sf) (6.6 acres). The site includes three parcels owned by the OCFCD and two parcels owned by Caltrans as shown in Table 2.A, Project Site Ownership and Area, and Figure 2.2, Land Ownership. The existing Ganahl Lumber facility in Costa Mesa was originally part of Barr Lumber, purchased in 1998. It is located immediately to the east of and adjacent to the project site at 1275 Bristol Street. It has a total of 55,540 sf of building/shed area consisting of a 35,650 sf building materials retail store and a 1,637 sf will call storage shed, a 15,905 sf storage shed, and a 2,348 sf mill shed. Access to the existing Ganahl Lumber facility is currently provided via two unsignalized full access driveways along Bristol Street.

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LSA

LEGEND

Project Site

Existing Land Use*

Single Family Residential

Multi-Family Residential

Public and Services

Facilities

Industrial

Open Space and Recreation

Vacant

*Note: Revised based on aerial photography taken in April 2014.

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SOURCE: Bing Maps (2013); SCAG (2008)

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FIGURE 2.1

Ganahl Hardware Store and Lumber Yard

Existing Land Uses

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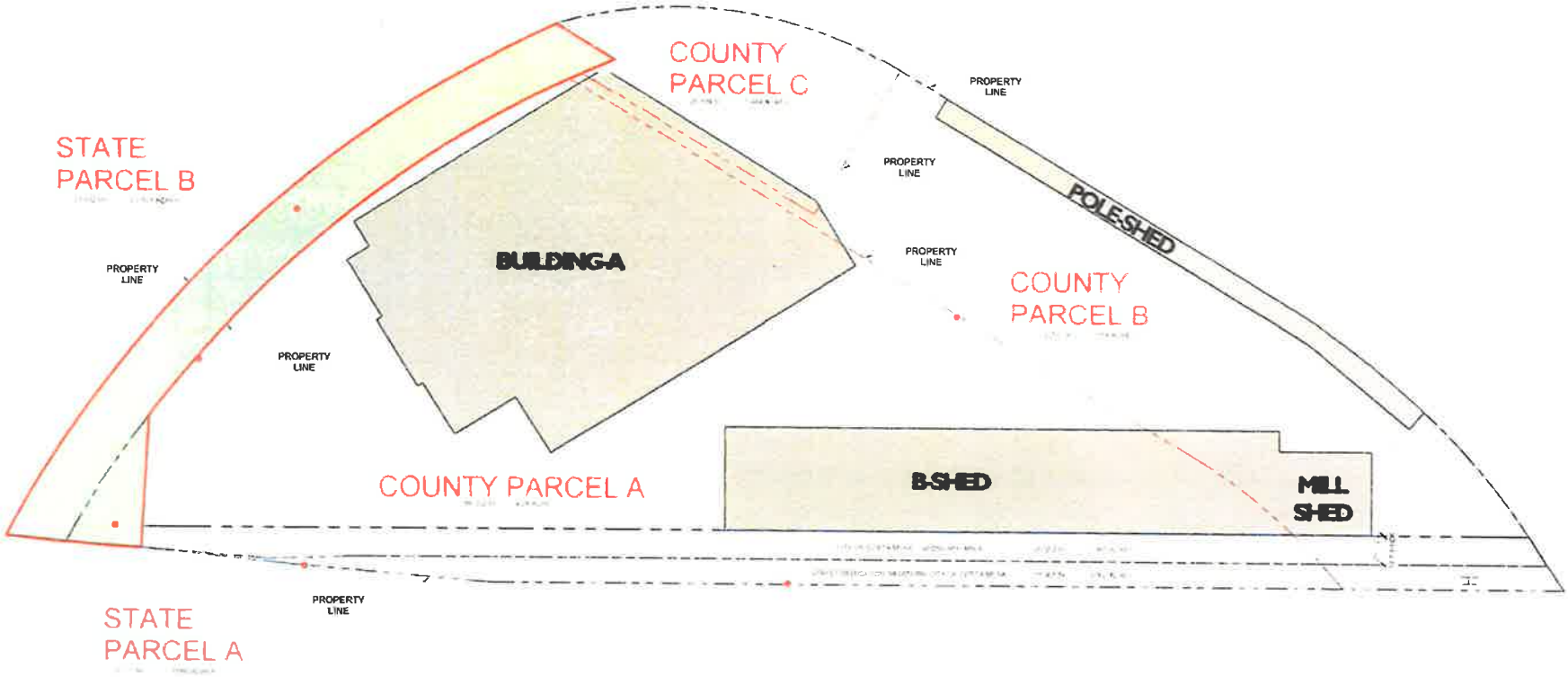

LSA

FIGURE 2.2

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Ganahl Hardware Store and Lumber Yard

Land Ownership

SOURCE: ONYX Architects

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Table 2.A: Project Site Ownership and Area

Ownership	Parcel	Square Feet (sf)
Orange County Flood Control District	A	186,352
	B	72,200
	C	20,199
State of California Department of Transportation (Caltrans)	A	2,777
	B	21,832
Subtotal		303,360
Future City Street Dedication		(15,695)
TOTAL		**287,696**

Source: Onyx Architects (November 25, 2014).

2.2 PROJECT DETAILS

2.2.1 Project Background

Ganahl Lumber Company is the oldest lumberyard in California. In 1884, an Austrian immigrant named Christian Ganahl and his brother Frank moved to Los Angeles from St. Louis. Christian Ganahl purchased a lumber company and named it the C. Ganahl Lumber Company.

Eventually there were several lumber yards located throughout the Los Angeles area, including one C. Ganahl opened in Anaheim in 1904. In the 1930s, the inventory of the lumber business continued to change with the addition of hardware. In the late 1940s, there was a growing interest in millwork products so Ganahl opened a mill division.

Through the years, the company has acquired additional locations throughout the Counties of Orange, Los Angeles, and Riverside, making the company the nine-store business it is today. The Costa Mesa store was opened in 1998.

2.2.2 Project Purpose and Need

Ganahl Lumber is proposing to relocate its Costa Mesa facility due to uncertainty with its current lease agreement, size constraints, and energy and maintenance requirements of the current facility. Relocating the store would allow Ganahl Lumber to execute a lease that would allow them to do business adjacent to their existing Costa Mesa location for the next 63 years, and result in the construction of a larger store and storage areas that would support a greater inventory and product mix, be more energy efficient, and require less maintenance. Additionally, the new hardware store would provide an opportunity to expand the home design showroom space.

2.2.3 Project Characteristics

The Proposed Project includes the construction and operation of a new lumberyard and building materials retail store for the Ganahl Lumber Company. The existing Costa Mesa Ganahl Lumber store is located on an adjacent property to the east and would be closed once the new store is completed. The Proposed Project seeks to establish a variety of simple design details and materials, reflecting the values of Ganahl Lumber Company and the City of Costa Mesa. This would be accomplished by

providing durable and sustainable design, arranged in a way that would provide for a state-of-the-art building materials facility, while adhering to the City's General Plan intent.

Building A and Sheds. The new facility would include one main building and three sheds: Building A, B Shed, Mill Shed, and Pole Shed. Total gross square footage (gsf) and features for these structures are listed in Table 2.B. A Site Plan is included as Figure 2.3.

Table 2.B: Gross Square Footage

Structure	Gross Square Feet (gsf)
Building A: • Main Store Sales • Doors and Windows • Sales Offices/Counters • Mezzanine • Control Room • Will-Call Storage • (storage/operations offices)	65,263
B Shed	30,262
Mill Shed	3,991
Pole Shed	6,672[1]
Control Building (Security Shack)	134
TOTAL BUILDING A AND SHEDS	**106,332**

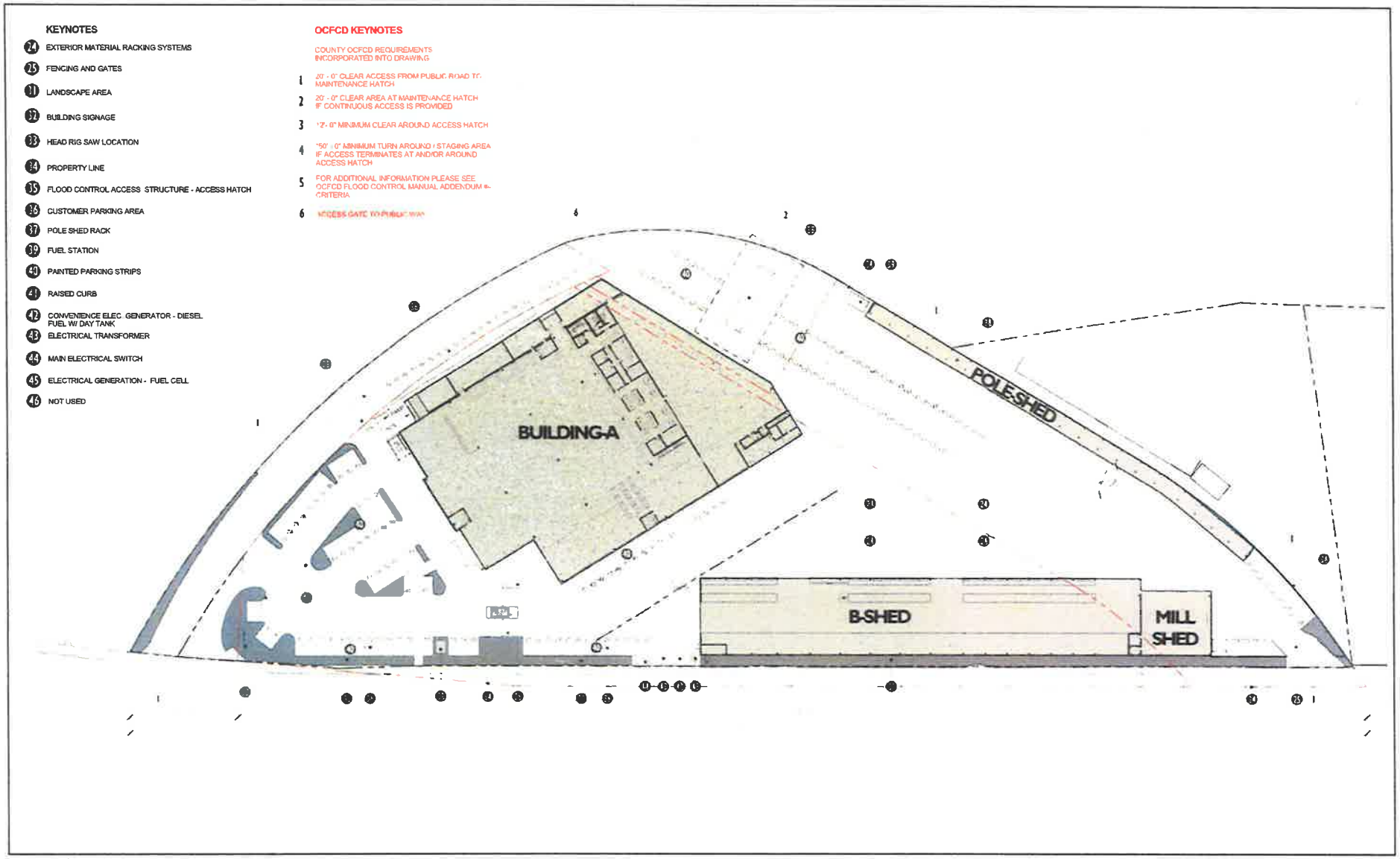
Source: Onyx Architects (November 25, 2014).

[1] Because it is not an enclosed building, the square footage of the pole shed is not included in the total square footage for purposes of calculating the allowable Floor Area Ratio (FAR) for the site as described in the following paragraph.

The total area of the project site is 287,696 sf (6.6 acres). In accordance with General Plan Policy LU-1E.1(a), the Proposed Project is subject to a maximum floor area ratio (FAR) of 0.35. Because the FAR for the Proposed Project would be 0.346, excluding the Pole Shed as noted above, the Proposed Project would comply with the City's FAR requirements.

The proposed use(s) of Building A and the sheds are described below.

- **Building A:** Building A would house two principal functions: retail sales and large volume distribution operations. This building would include a complete hardware store, a doors and windows showroom and sales department, hardwood and molding display areas, as well as sales and customer service areas. Delivery and receiving activity would be scheduled and conducted in the northeast office of the building. The structure would be 65,263 gsf in size and would also include a control room, mezzanine, rooftop parking, as well as structural support for a solar photovoltaic (PV) system overhead of the parking surface. Figures 2.4a through 2.4e, Building A Floor Plans, provide the proposed floor plans for the first floor, mezzanine, and roof parking deck of Building A. The rooftop parking would be accessed via a ramp located on the north side of the building. The sales area would feature large amounts of glass. As shown in Figure 2.5,



LSA

FIGURE 2.3

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SOURCE: ONYX Architects

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Ganahl Hardware Store and Lumber Yard

Site Plan

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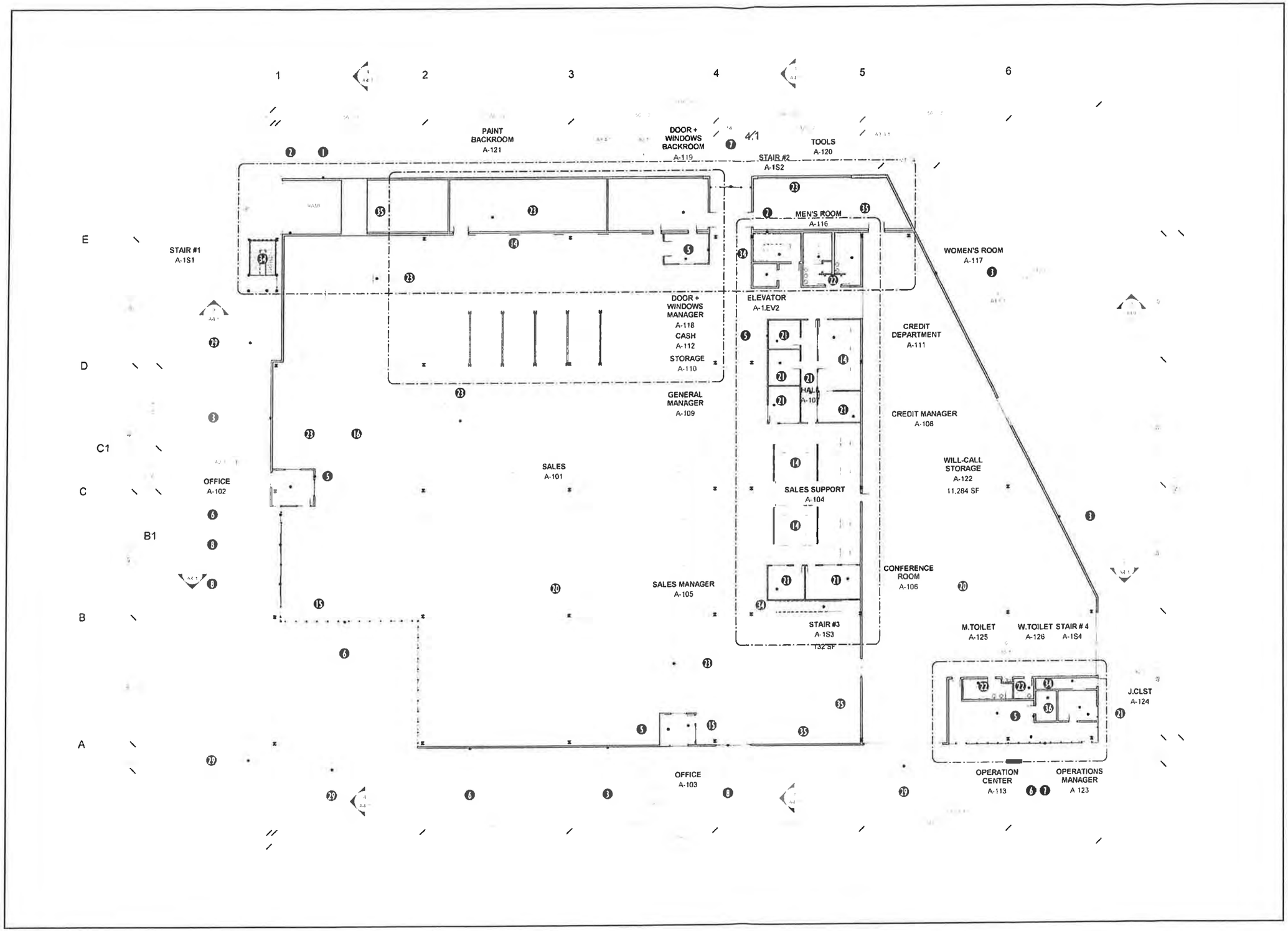
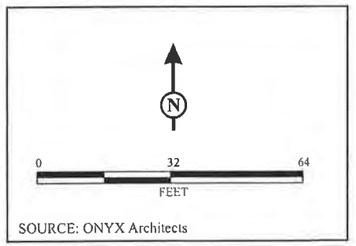


KEYNOTES



SOURCE: ONYX Architects

LSA

FIGURE 2.4a

Ganahl Hardware Store and Lumber Yard

Building A Floor Plans - First Floor Plan

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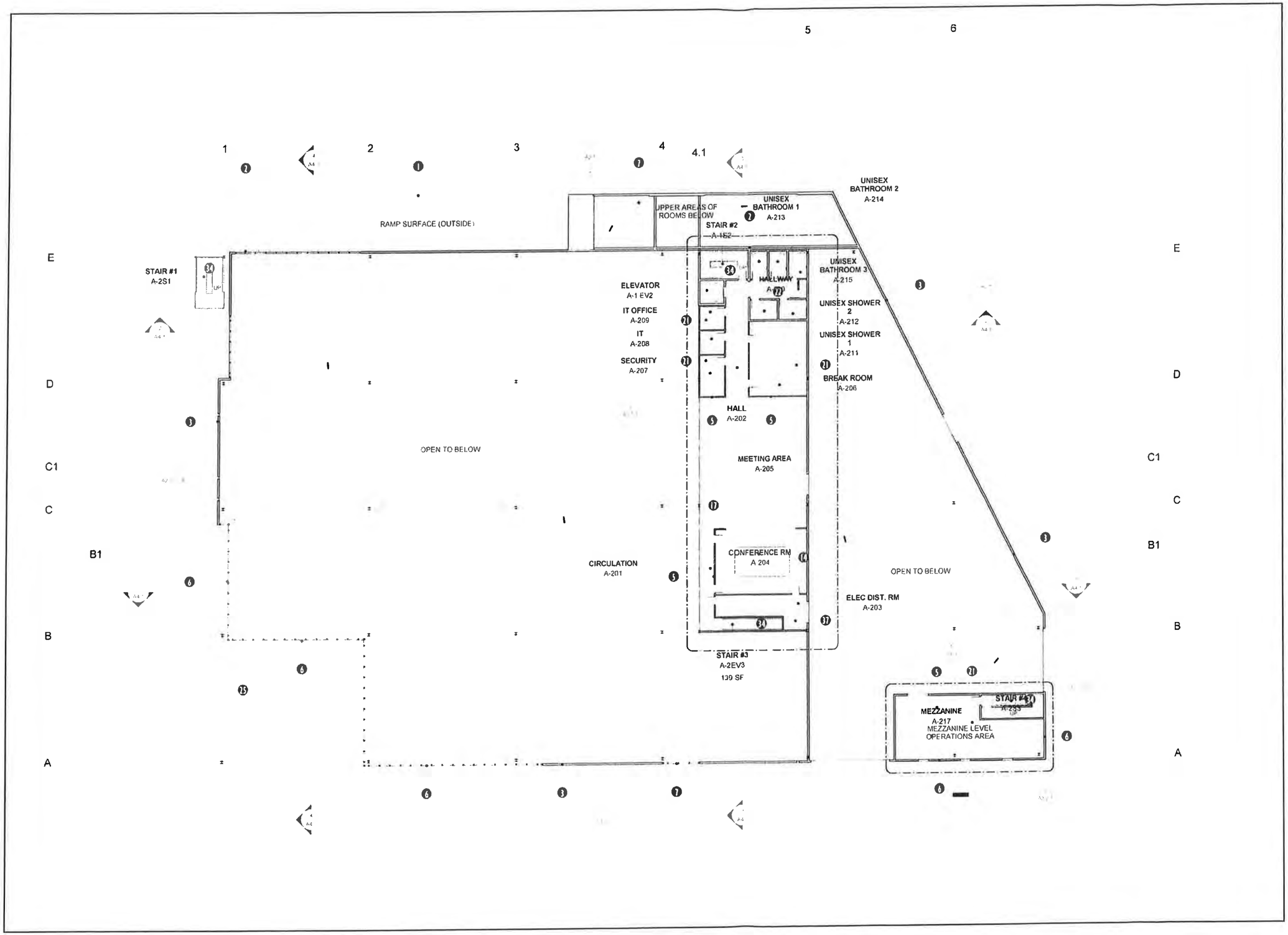

KEYNOTES

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2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
14. [illegible]
16. CASEWORK TYPE CUSTOMER CO[illegible] WITH LEVERS AND SPECIAL SS ACCESSORIES
17. CROSS LAMINATED TIMBER MEZZANINE STRUCTURE WITH SUSPENDED LIGHTING MECHANICAL AND FIRE SUPPRESSION SYSTEMS UNDER EXPOSED DECK
21. CARPET [illegible]
22. [illegible] STEEL PANELS AT WET WALLS SUSPENDED FIXTURES AND TOILE PARTITIONS SS ACCESSORIES [illegible]
25. [illegible]
34. [illegible]
36. [illegible]
37. [illegible]
38. [illegible]

0 32 64
FEET

SOURCE: ONYX Architects

LSA

FIGURE 2.4b

Ganahl Hardware Store and Lumber Yard

Building A Floor Plans - Mezzanine Plan

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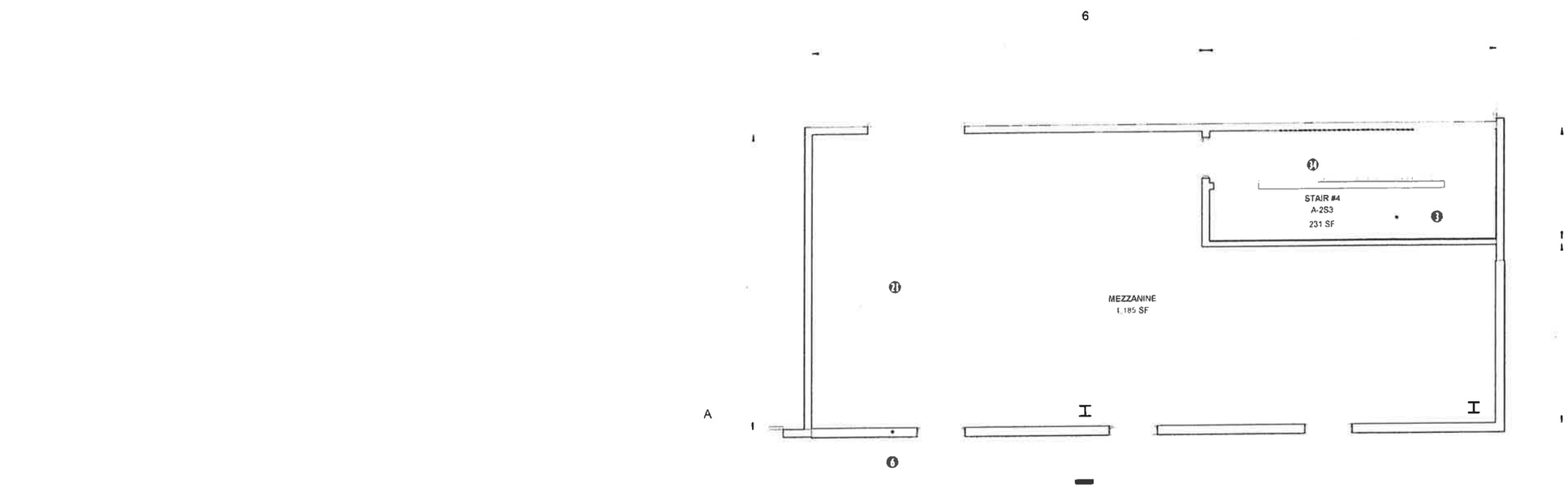


ENLARGED WILL-CALL STORAGE MEZZANINE

ENLARGED OPERATIONS FLOOR PLAN

KEYNOTES

3 CMU WALL COLORED AND BURNISHED WITH [illegible] TREATMENT AT EXTERIOR FACES

4 HORIZONTAL WOOD SIDING OVER STUD WALL [illegible]

5 INTERIOR PARTITIONS [illegible] OVER STUDS PAINT

6 ALUMINUM (CLEAR FINISH) AND GLASS CURTAIN WALL SYSTEM WITH EXTERNAL STEEL REINFORCING

7 ALUMINUM (CLEAR FINISH) AND GLASS STOREFRONT SYSTEM

14 CASEWORK TYPE DESKS AND PARTITIONS

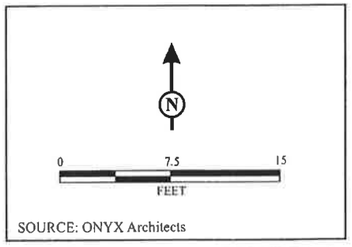
20 POLISHED CONCRETE FLOOR

21 CARPET TILES

22 TOILET ROOMS GYPSUM BOARD CEILING AND WALLS WITH PATTERNED STAINLESS STEEL PANELS AT WET WALLS SUSPENDED FIXTURES AND TOILET PARTITIONS SS ACCESSORIES SS TROUGH SINK EPOXY FINISH FLOORS WITH ROLLED BASE

34 NEW EMERGENCY EGRESS STAIR

35 [illegible]



SOURCE: ONYX Architects

LSA

FIGURE 2.4c

Ganahl Hardware Store and Lumber Yard

Building A Floor Plans - Will-Call Storage Operations Plan

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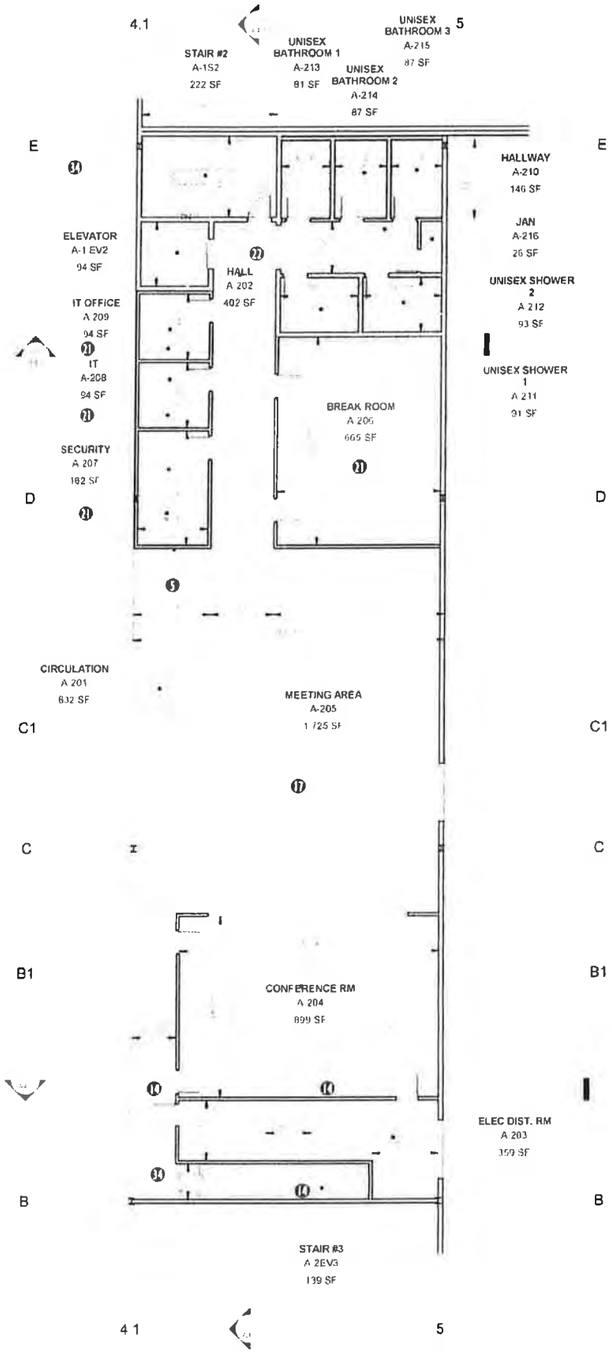
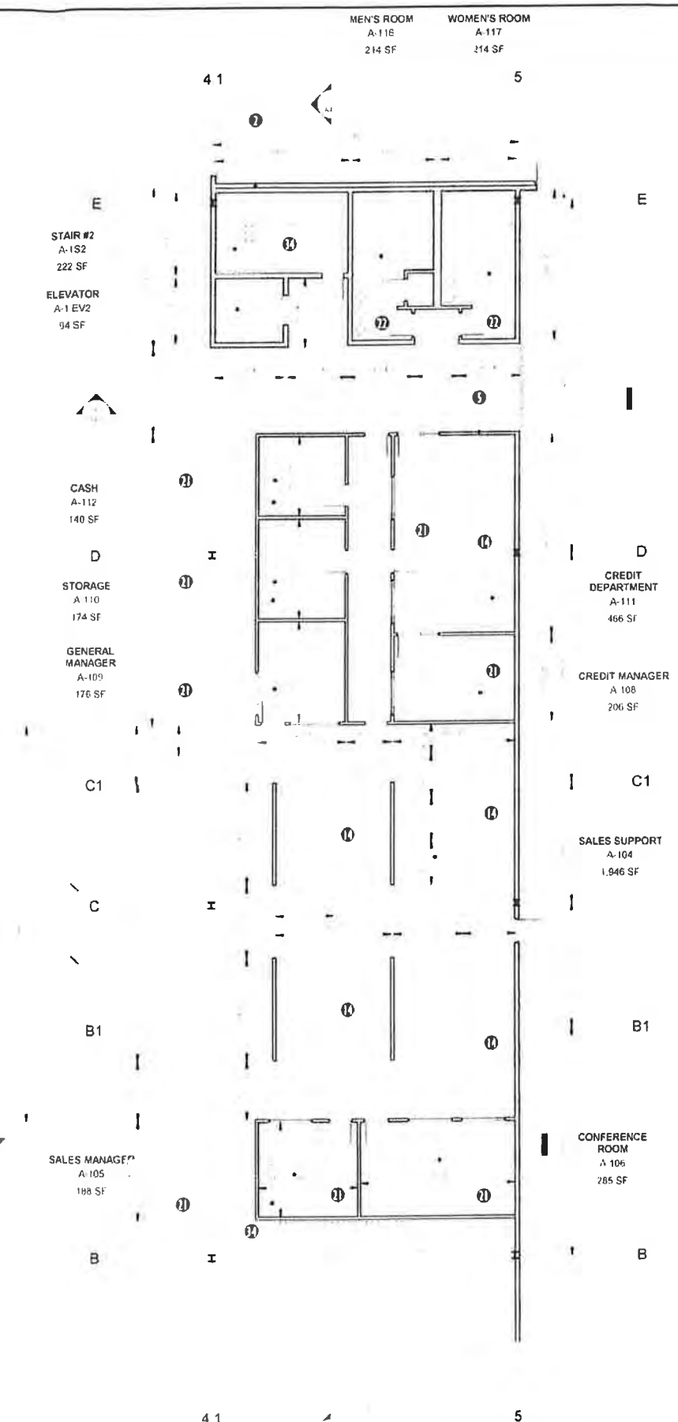


ENLARGED BUILDING A - MEZZANINE PLAN



ENLARGED BUILDING A - SALES FLOOR PLAN

KEYNOTES

2 [illegible]

4 [illegible]

5 [illegible]

14 [illegible]

17 [illegible] MECHANICAL AND FIRE SUPPRESSION [illegible]

21 [illegible]

22 [illegible] SUSPENDED FIXTURES AND TOILET PARTITIONS [illegible]

34 [illegible]

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FEET

SOURCE: ONYX Architects

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FIGURE 2.4d

Ganahl Hardware Store and Lumber Yard

Building A Floor Plans - Enlarged Sales + Mezzanine Plan

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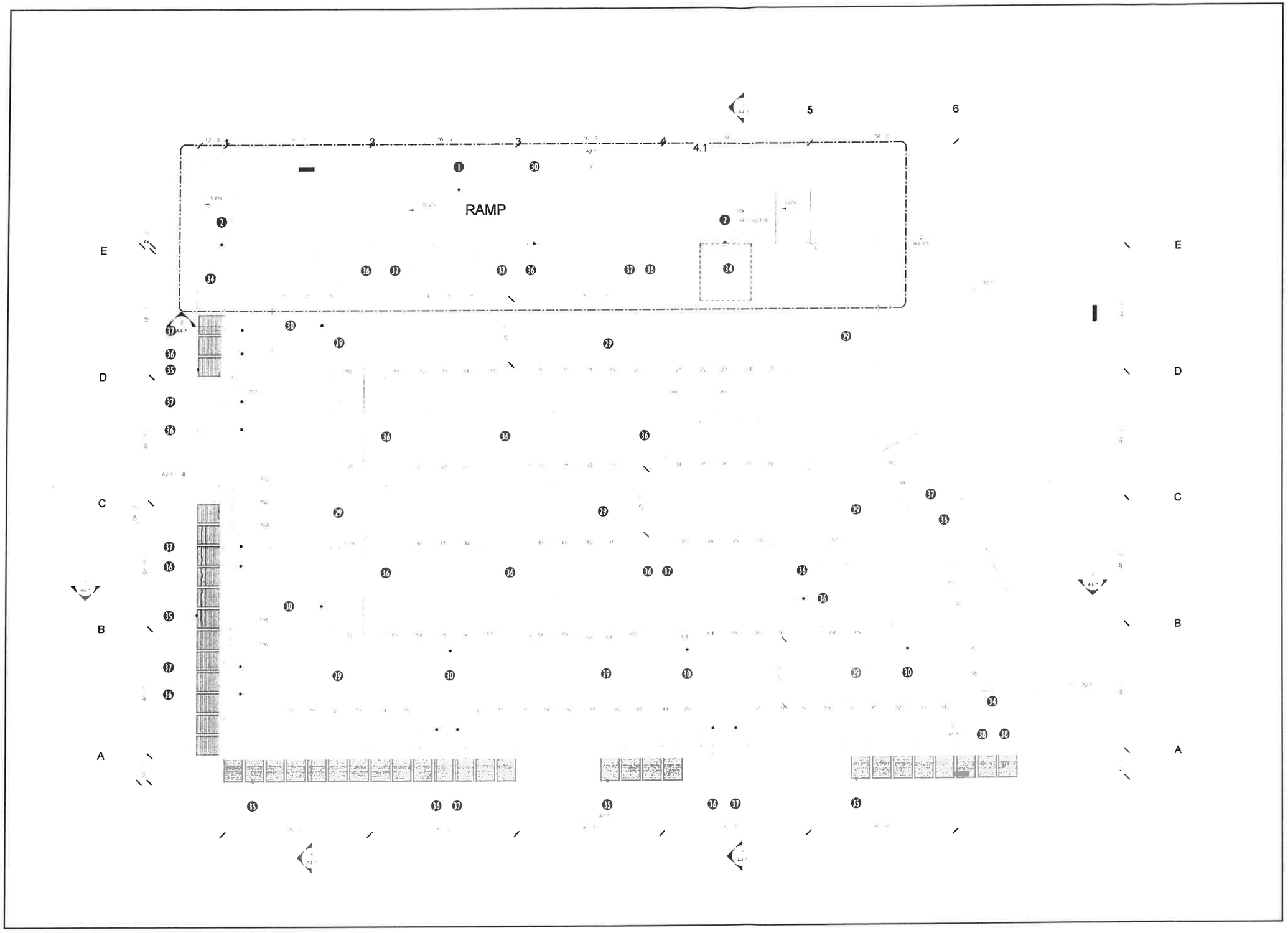

KEYNOTES

1. NEW RAMP TO PARKING DECK
2. BUILDING JOINT BETWEEN RAMP STRUCTURE AND BUILDING STRUCTURE
29. CONCRETE DECK WITH ELASTOMERIC WP COATING SYSTEM
30. METAL BUILDING STRUCTURE WITH PV SYSTEM ABOVE
34. NEW EMERGENCY EGRESS STAIR
35. ROOF SUN SHADE SYSTEM FOR GLAZING BELOW
36. NEW VENTILATION FAN UNIT
37. NEW HVAC PACKAGE UNIT
38. HVAC SPLIT SYSTEM
39. VERTICAL ACCESS WAY FROM SOLAR PANEL CONDUITS TO ACCESS ELECTRICAL RM ON MEZZANINE

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FEET

SOURCE: ONYX Architects

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FIGURE 2.4e

Ganahl Hardware Store and Lumber Yard

Building A Floor Plans - Roof Plan

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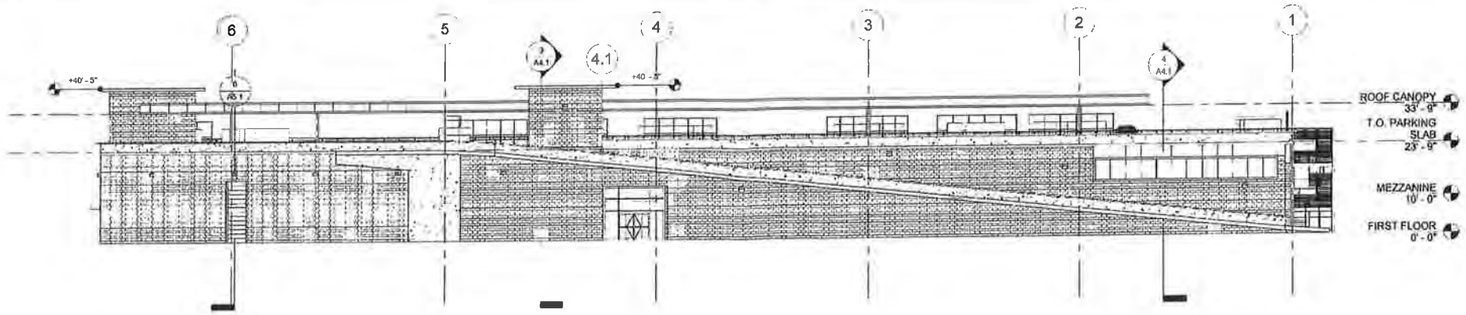
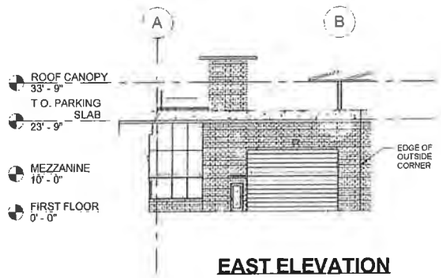
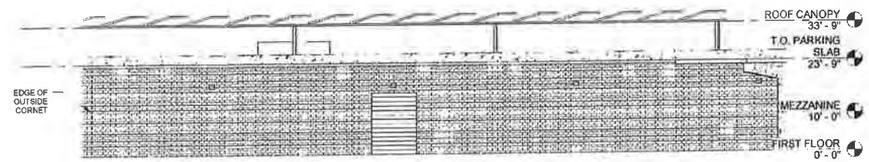


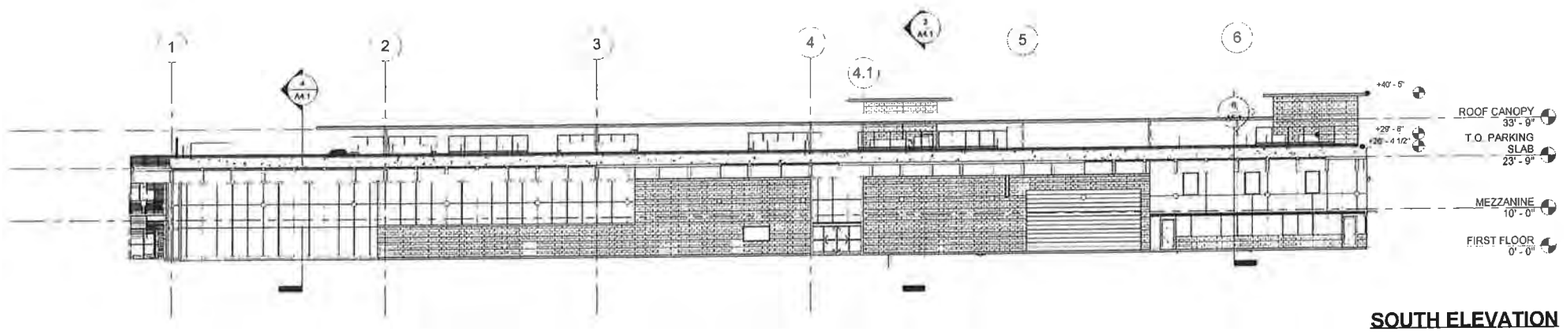
NORTH ELEVATION



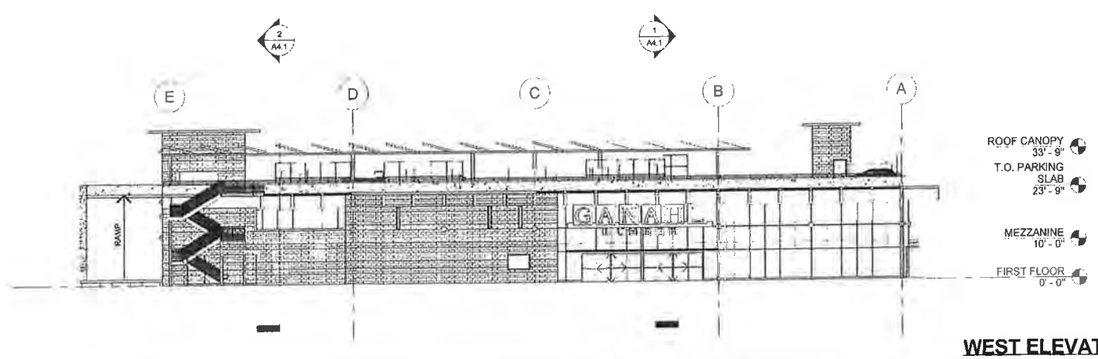
EAST ELEVATION



EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION

LSA

FIGURE 2.5

Ganahl Hardware Store and Lumber Yard

Building A Elevations

SOURCE: ONYX Architects

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Building A Elevations, and Figure 2.6, Building A Cross Sections, Building A would be 23 feet, 9 inches in height, with the roof canopy and solar PV panels extending an additional 10 feet above the height of the building. As shown in Figure 2.5 and 2.6, the elevator and stairwell towers providing access to the roof top parking deck above Building A would be 40 feet, 5 inches in height. Three-dimensional renderings of the Proposed Project as viewed from the southeast corner of the project site along Bristol Street and from Newport Boulevard across Bristol Street are provided in Figure 2.7, 3D Perspectives.

Retail business hours would be 6:00 a.m. to 6:00 p.m., Monday through Friday; 7:00 a.m. to 6:00 p.m. on Saturdays; and 9:00 a.m. to 5:00 p.m. on Sundays. In addition, some staff would arrive a half hour to an hour prior to opening to prepare the store for customers. A night shift would be scheduled to work in Building A until 11:00 p.m. and may work longer as needed depending on work load. After-hours activities would include replenishment, cleaning, and order pulling for the next day.

The service and building materials stock areas (sheds) would be located at the back of the site. This area would be designed to be functional and attractive, yet would be screened from public view by a new fencing system. The fence is proposed to extend to a 16-foot height at the back portion of the site. The sheds are described below.

- **B Shed:** The 30,262 gsf B Shed would be used to store lumber and wood products and includes a small area for custom cutting and bundling. This shed would not be permanently staffed. Employees and customers would come and go as stored product is sold or replenished in the regular sales cycle. Products located in this building would include building materials, drywall, panels, and lumber. Figure 2.8, B Shed Floor Plans, provides the proposed floor plan for B Shed. As shown in Figure 2.9, B Shed Elevations, the B Shed would include a rooftop solar PV system and would be 34 feet, 1 inch in height.
- **Mill Shed:** The Mill Shed would encompass a 3,991 gsf area for lumber milling of wood products. The mill would typically have three to four employees working from 7:00 a.m. to 4:00 p.m., Monday through Friday. The mill operation consists of cutting and sizing wood products to meet customer needs. There would be no wood finishing or painting activities in this facility. The Mill Shed would include a sawdust collection system that would comply with South Coast Air Quality Management District (SCAQMD) Rule 1137, which requires woodworking facilities to completely vent their sawdust emissions via a pneumatic conveyance system to a baghouse system and ensure that there are no visible emissions existing from external ductwork and the baghouse system at any time, with the exception of the initial 15 minutes after startup and the final 15 minutes prior to shutdown.
- **Pole Shed:** The pole shed is not an enclosed building and is not included for FAR calculation purposes. The pole shed on the north perimeter of the project site would be used for outdoor storage of back stock of products in the yard as well as products designated for the B Shed. Those products consist of lumber, plywood, and other panel products. Outgoing loads for deliveries would also be stored in this shed. A diesel fueling station for use by Ganahl Lumber trucks and yard vehicles would be located at the west end of the pole shed. During operation of the Proposed Project, the diesel fueling station would be enclosed within integrated containment vessels, and would be required to be operated in compliance with all applicable State and federal regulations governing the handling of diesel fuels. In addition, the diesel fueling station would meet all best management practice (BMPs) and City code requirements, including a roof shed above the

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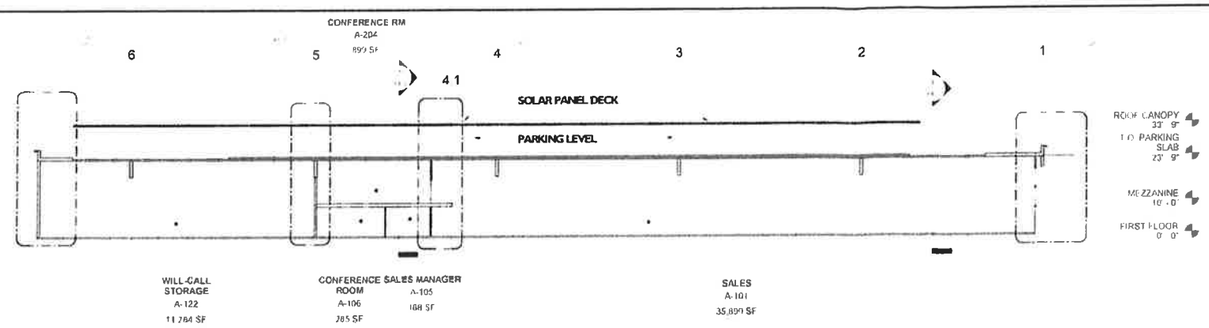
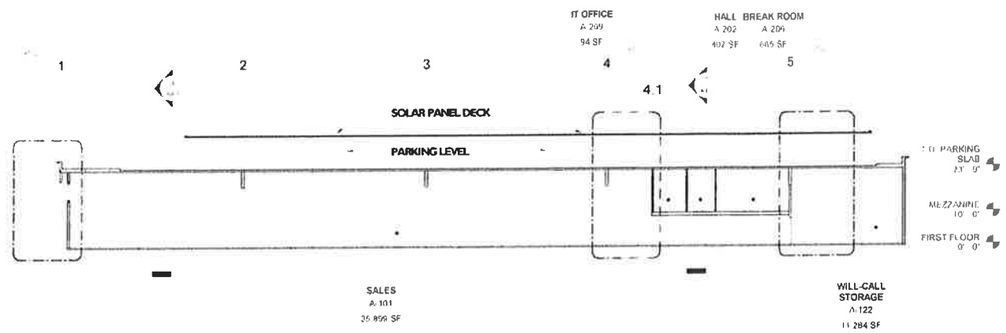


SECTION E/W 1 1
1/16" = 1'-0"



SECTION E/W 2 2
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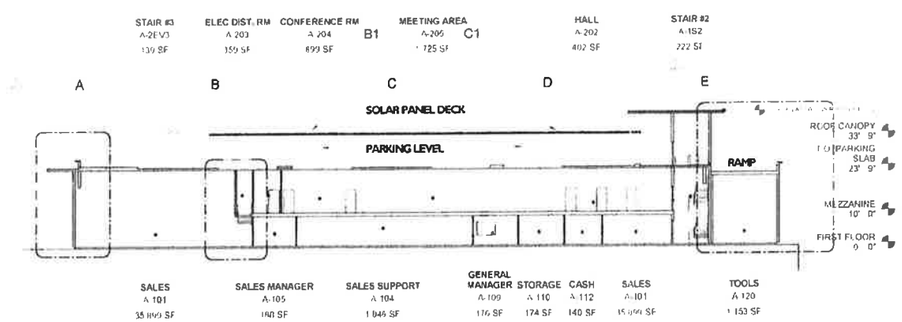
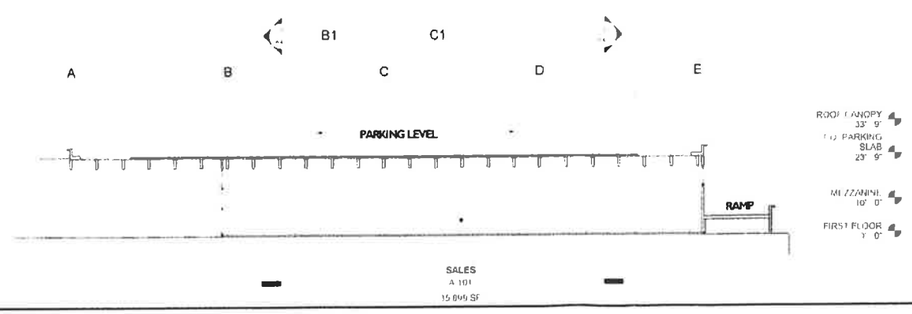
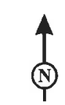


SECTION N/S 1 3
1/16" = 1'-0"





NO SCALE

SOURCE: ONYX Architects

LSA

FIGURE 2.6

Ganahl Hardware Store and Lumber Yard

Building A Cross Sections

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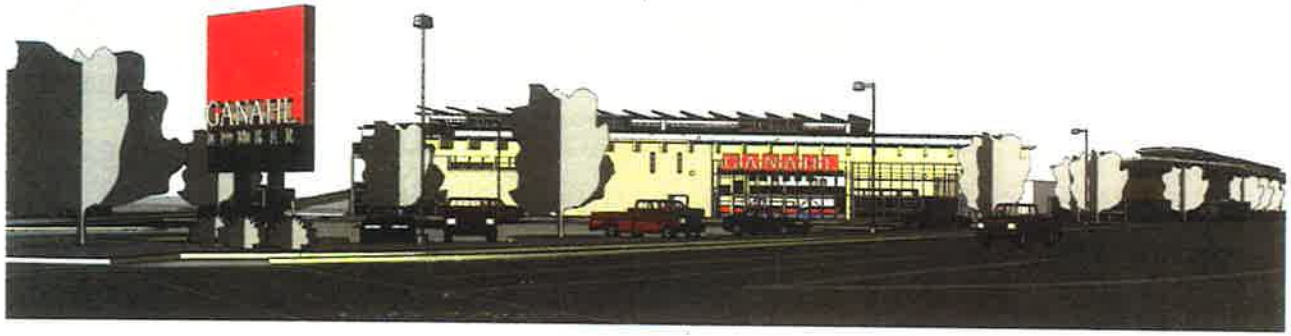
3D PERSPECTIVE SOUTHEAST CORNER FROM BRISTOL STREET



3D PERSPECTIVE FROM NEWPORT BLVD

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FIGURE 2.7

Ganahl Hardware Store and Lumber Yard

3D Perspectives

SOURCE: ONYX Architects

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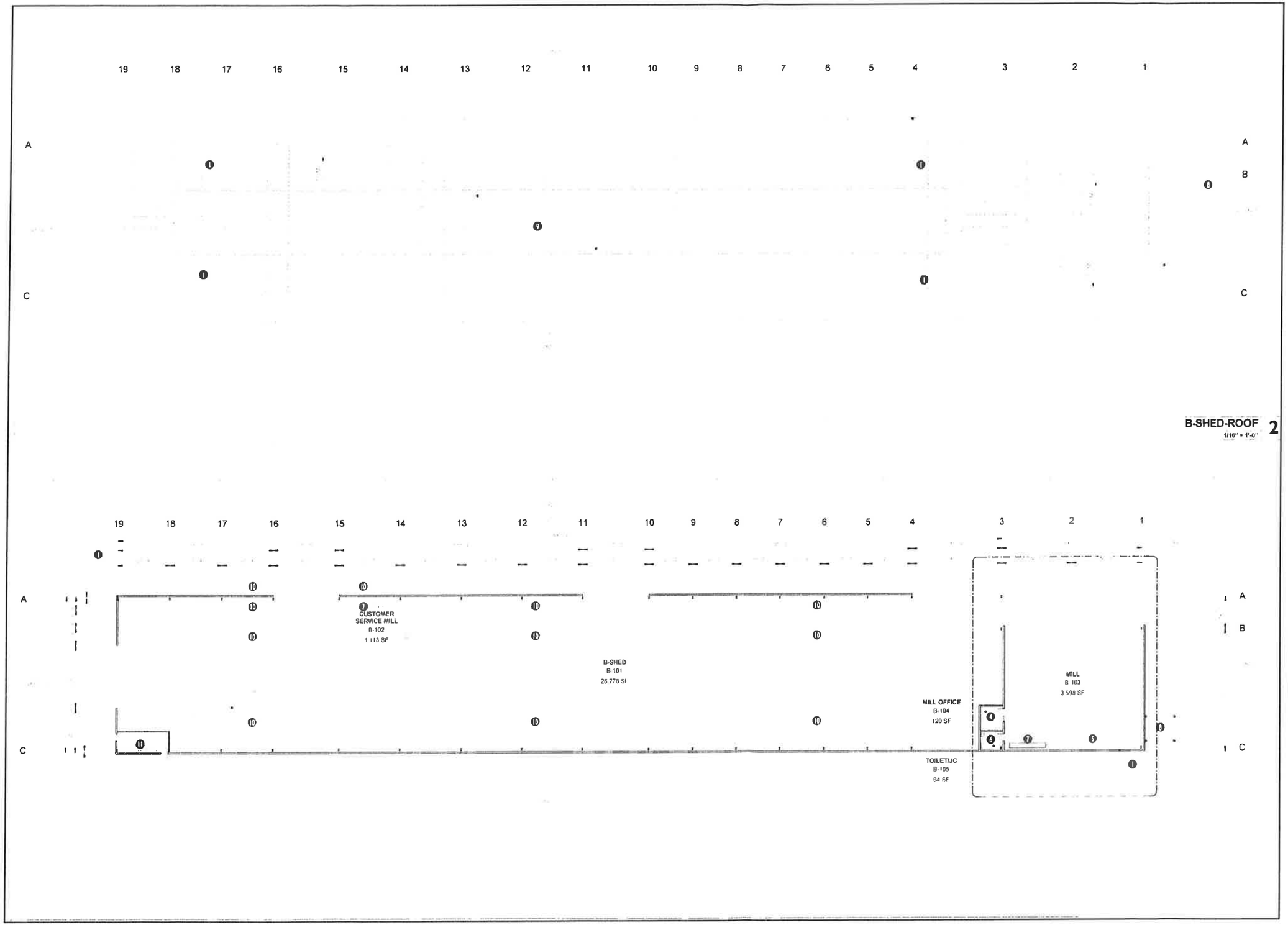
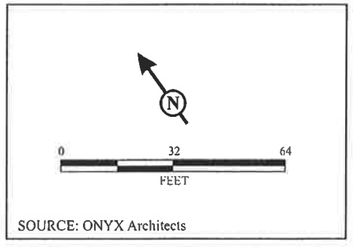


KEYNOTES

1. PRE-MANUFACTURED BUILDING SYSTEM
   COMPONENTS INCLUDE
   - STRUCTURAL SYSTEM
   - PREFINISHED METAL SIDING WALL SYSTEM
   - PREFINISHED METAL ROOF SYSTEM
   - INTERIOR AND EXTERIOR LIGHTING
   - WINDOWS, DOORS, VENTILATION SYSTEM
   - CONCRETE FLOOR FINISH
2. CUSTOMER SERVICE MILL
3. MILL LINE
4. OFFICE
5. TOOL STORAGE RACK AND WORK BENCH
6. UNISEX TOILET ROOM
7. ELECTRICAL CONTROL PANELS
8. CYCLONE DUST COLLECTOR SYSTEM
9. CLEARSTORY LIGHT AND VENTILATION SYSTEM
10. RACKING & STORAGE SYSTEM
11. MAIN ELECT. PANEL BOARD



SOURCE: ONYX Architects

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FIGURE 2.8

Ganahl Hardware Store and Lumber Yard

B Shed Floor Plans

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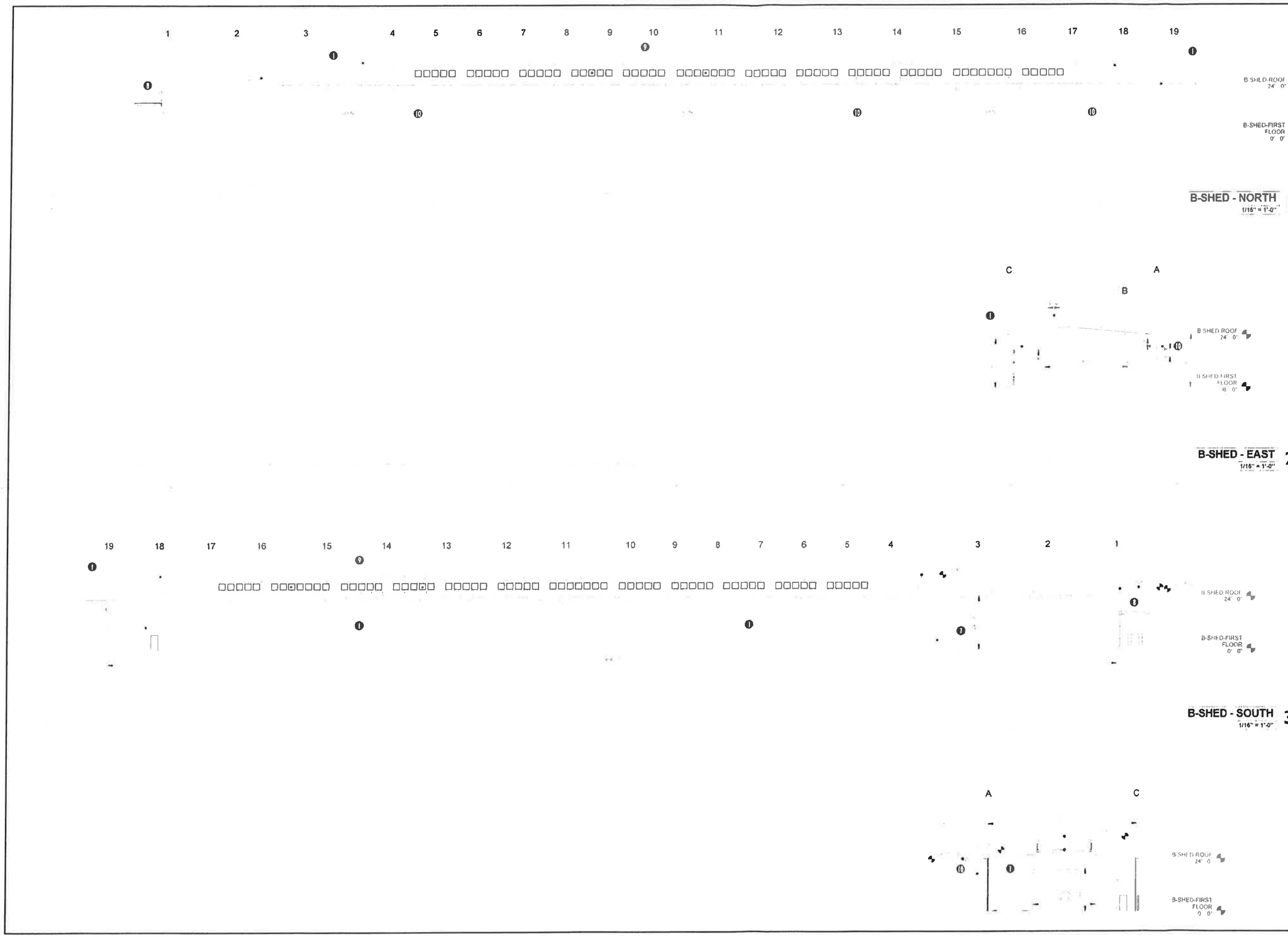

KEYNOTES

1. PRE-MANUFACTURED BUILDING SYSTEM
   COMPONENTS INCLUDE
   - STRUCTURAL SYSTEM
   - PREFINISHED METAL SIDING WALL SYSTEM
   - PREFINISHED METAL ROOF SYSTEM
   - INTERIOR AND EXTERIOR LIGHTING
   - WINDOWS, DOORS, VENTILATION SYSTEM
   - CONCRETE FLOOR FINISH
2. CUSTOMER SERVICE MILL
3. MILL LINE
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5. TOOL STORAGE RACK AND WORK BENCH
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8. CYCLONE DUST COLLECTOR SYSTEM
9. CLEARSTORY LIGHT AND VENTILATION SYSTEM
10. RACKING & STORAGE SYSTEM
11. MAIN ELECT. PANEL BOARD

NO SCALE

SOURCE: ONYX Architects

LSA

FIGURE 2.9

Ganahl Hardware Store and Lumber Yard

B Shed Elevations

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fueling area. The existing Ganahl Lumber facility has a similar fueling station on the existing site located directly above the Delhi Channel. The fuel area would be built to comply with all cover and containment requirements. A trash bin enclosure used for the disposal of trash created by the facility would also be located on the west end. This shed would be 6,672 gsf in size.

- **Yard:** The facility would support seven to ten trucks for deliveries to customers. The on-site fleet would consist of 10 wheel, bobtail, and box trucks. Customer deliveries per day would typically number from 20 to 40 stops compared to 20 to 35 at the existing facility. Receiving will typically handle 20 to 30 incoming vendor trucks supplying material for replenishment of inventory. All receiving would take place during regular business hours. All Ganahl Lumber trucks and vendor deliveries coming into the facility would enter at a non-customer approach located at the east end of the project site. All Ganahl Lumber and vendor trucks would exit at the proposed signalized exit at the west end of the project site. Approximately 15 to 20 material handling vehicles would be used to stack, load, and unload product at the yard. Storage in the yard would consist of lumber and building materials located in covered racking and storage sheds as described above. The racking would vary to match the products stored. Pallet racks, cantilever racks, and custom racks for storing doors and windows would be incorporated in the layout of the yard. Customer traffic into the yard area would enter and exit through a controlled and guarded point located in front of Building A. This gate guard building would be staffed during all business hours and would have closed and secured gates when the business is closed to customers.
- **Employees:** The employee count at the new facility is expected to start at 90 to 100 people compared to the current facility count of 80 people. The proposed facility would employ approximately 120 employees at full capacity, dependent on economic conditions and the construction market. Typically 80 percent of the employees would work in Building A. The balance of employees would move around the site to fill customer orders and prepare orders for delivery.

2.2.4 Operation and Maintenance

The Proposed Project would operate under a 21-year lease term with six additional 7-year extensions from the Orange County Flood Control District (OCFCD). An encroachment permit would be required for the Caltrans property.

Ongoing Orange County Flood Control District Maintenance. As described above in Section 2.1, the Santa Ana Delhi Channel runs underground beneath the central and eastern portion of the project site, with the majority of the project site owned in fee by the OCFCD. The OCFCD provides regular inspections of the Santa Ana Delhi Channel and when needed, may conduct maintenance activities that involve, but are not limited to: regular inspections of the triple reinforced concrete box, removing debris or potential sediment buildup, repair and/or reinforcement of the channel (including the walls and soffit), and graffiti clean-up. Most of these activities would occur below the ground elevation in the channel underneath a portion of the project site. However, in some instances the activities may require use of a maintenance access hatch located to the rear of the of the project site. As shown on Figure 2.3, the site plan for the Proposed Project includes a 20-foot wide access road that would allow the OCFCD to access the maintenance access hatch. Upon entering into a Lease Agreement with the OCFCD, the Ganahl Lumber Company will be responsible for site maintenance through the duration of the lease term and the OCFCD will continue to maintain the underground channel.

Parking and Access. The Proposed Project would provide a total of 286 parking spaces: 108 on the roof of Building A and the remainder at grade (including handicap accessible stalls and walkways) available to employees and customers. Building A would include a covered roof deck for additional parking with a solar PV system. The covered roof deck would provide natural ventilation and shade the building to provide cost savings in energy use. A ramp on the north side of Building A would provide access to the roof deck. The roof deck area square footage is as shown below in Table 2.C, Roof Area Square Footage. A focused *Traffic Impact Study for Ganahl Lumber Costa Mesa Relocation Project* was completed for the Proposed Project by Linscott, Law, & Greenspan, Engineers (LLG 2014) based on an evaluation of the trip generation studies conducted at the existing Ganahl Lumber facility located at 1275 Bristol Street. As indicated in the traffic impact study, traffic counts were collected at the two existing driveways that provide access to the existing site on Tuesday, February 11, 2014, Wednesday, February 12, 2014 and Thursday, February 13, 2014. From the results of the trip generation studies, LLG calculated the existing parking accumulation of the Ganahl Lumber facility by comparing inbound vehicles vs. outbound vehicles at the two driveways that now serve the site.

Table 2.C: Roof Area Square Footage

Building A Roof Area:	Gross Square Feet (gsf)
Roof Deck Slab Area	58,033
Covered Roof Deck (solar panels)	35,585

Source: Onyx Architects (November 25, 2014).

Access to the site would be provided by two driveways on Bristol Street. To minimize turning conflicts on the existing two-way left-turn median lane on Bristol Street along the Project frontage, primary access is proposed via a full access signalized driveway along Bristol Street to be constructed opposite northbound Newport Boulevard (Driveway No. 1), with secondary access to be provided via a proposed unsignalized driveway on Bristol Street that is located at the eastern edge of the project site (Driveway No. 2). The locations of the Proposed Project's two driveways are shown in Figure 2.3. Driveway No. 1, which requires utilization of a Caltrans easement, would provide access to customer, employee, and contractor-related traffic, while Driveway No. 2 is proposed as a "truck-only entry" driveway (no exit) for truck-related traffic; trucks would exit the site at Driveway No. 1.

Improvements to be completed as a part of the Proposed Project at the Bristol Street/Northbound Newport Boulevard intersection, subject to the approval of the City of Costa Mesa and access across the Caltrans easement, include:

- Modification of the existing median on Bristol Street to provide a dedicated eastbound left- turn lane;
- Restriping the northbound approach to provide one left-turn lane, an option left-turn/through lane, and a separate right-turn lane;

- Construction of the new site driveway to provide a southbound (outbound) left-turn lane and southbound (outbound) right-turn lane and one departure (inbound) lane; and
- Modification of the existing traffic signal, to include split phase operation on Northbound Newport Boulevard/Driveway No. 1.

Landscaping. Approximately 15,748 sf of landscaping would be included as part of the Proposed Project. The front landscape setback along Bristol Street is proposed at a depth of 10 feet. Landscape features would be used in an integrated way to reflect the history of the site and help with site stormwater management. The project site is located across the street from an open tributary to the Newport Back Bay. The Santa Ana Delhi Channel runs beneath the site and serves as a physical connection to the bay within the Newport Bay Watershed. The project is located approximately one mile from the Upper Newport Bay Nature Preserve and approximately five miles from the Pacific Ocean. Therefore, the landscape concept for the site is Tidal. Coastal native trees and shrubs would be used and tidal patterns would be reflected in the paving, planting, and built forms.

The Proposed Project includes the use of regenerative design principles and aesthetics as part of the landscape plan. The plan includes the use of signatures trees, the Ganahl Lumber rickshaw sculpture, wood fencing, nature pattern pavement (permeable), planting areas, bioswale, roof planters, and green walls (vines on cables). The Proposed Project would be designed to capture rain water from the roof system and store it in five aboveground cisterns for later use in landscape areas (based on 12 inches of average rainfall per year). The cisterns would be 18 feet in diameter and 10.75 feet high and could store approximately 100,000 gallons of rainwater. It is anticipated that the landscaping would require up to 112,000 gallons per year. Rainwater at grade would be treated and eventually filtered into the ground, replenishing the water table. Native and drought tolerant plants that thrive in extended periods of drought with seasonal floods would be used.

Sustainability Features. The Proposed Project would use passive energy and resource saving features through its rainwater runoff system, heating, ventilation and air conditioning (HVAC) system, power consumption, permeable paving, and other design features on site. As appropriate, these systems would be featured in an aesthetically pleasing way, appropriate to the functional design. These built-in features include:

- Use of sun shading and natural day-lighting to diminish heat gain and decrease the need for artificial lighting during daylight hours such as:
    - Building overhangs provided over glazing areas and over portions of the building as a whole. These overhangs are either solid to shade the masonry walls or are louvered over glazing areas to harness the natural light while blocking solar gain and glare from the direct light.
    - Light shelves provided at the glass curtain walls in order to bring indirect light into the interior of the building.
    - Roof shading covering provides a mounting surface for solar PV panels and blocks solar radiation from hitting the main roof plane (the upper part of the main building envelope); prevailing winds continually blow away accumulated heat that collects under this shade, lowering the temperature of the air immediately above the main roof. The solar PV system of

the roofs of Building A and the B Shed would produce approximately 40 kilowatts of electricity. The Proposed Project would also include four 5 kilowatt fuel cell modules (20 kilowatt maximum).

- The enclosed building would employ natural ventilation to maintain a comfortable temperature, while minimizing the use of air conditioning. The building envelope incorporates a controlled wall louver system to catch prevailing winds in lieu of air conditioning during much of the day and during most days of the year. This ventilation would be mechanically augmented, as needed.
- All passive systems would be integrated into the facility's active control systems:
  - As more natural lighting comes into the store, artificial lighting would be dimmed accordingly.
  - As the various solar shading and ventilation systems maintain a temperate environment in the store, air conditioning and heating systems would be kept at idle, and not used until necessary (a fraction of a typical commercial facility).

These passive conservation elements would exceed what is currently prescribed in the State's Title 24 Energy Code.

2.2.5 Project Timing

The project site is under contract with the Orange County Flood Control District (property owner) for a limited duration; therefore, there is interest to proceed with project implementation closely following the approval of land use entitlements. The Proposed Project would start construction in summer 2015 and would take approximately 12 months to complete. Project construction activities would be limited to the hours and days listed in the City of Costa Mesa Noise Ordinance (7:00 a.m. to 7:00 p.m. on Mondays through Fridays, 9:00 a.m. to 6:00 p.m. on Saturdays, excluding Sundays and federal holidays). The existing store would remain open during construction. Once construction of the new Ganahl Lumber store is complete, the existing store would close permanently; there are no plans to reuse or continue to operate the existing site once the new store is operational.

2.2.6 Regulatory Requirements, Permits, and Approvals

The City of Costa Mesa is the primary approval authority and the California Environmental Quality Act (CEQA) Lead Agency for the Proposed Project. Because the Proposed Project would be located on property owned by the OCFCD and Caltrans, the OCFCD and Caltrans would serve as a Responsible Agencies. Additional subsequent approvals and other permits may be required from other local, regional, state, and federal agencies. Permits required for the Proposed Project include, but are not limited to, the following:

- City of Costa Mesa
  - Discretionary Permits to be approved by Planning Commission (Conditional Use Permit, Development Review, Variances, Planned Signing Program)
  - Grading Permit

  - Building Permit
  - Fire Department Permit
- Orange County Flood Control District (OCFCD)
  - Lease Agreement
- California Department of Transportation (Caltrans)
  - Encroachment Permit
- South Coast Air Quality Management District (SCAQMD)
  - Permit for sawdust collection system
- State Water Resources Control Board (SWRCB)
  - National Pollution Discharge Elimination System (NPDES) General Construction Stormwater Permit or Waiver (for construction)

Required Discretionary Approvals by the City. The following discretionary approvals are required:

- Conditional Use Permit for Hardware Store and Outdoor Lumber Yard;
- Development Review for new construction of 65,263 sf store and associated outdoor material storage structures and mill shed;
- Variances from building height from 34 to 41 feet for the solar roof canopy, elevator overrun, B-shed, and roof-deck parking level;
- Variance from front setback requirement (20 feet required, 10 feet proposed); and
- Planned Signing Program for freestanding signs up to 25 feet in height (12 feet allowed).

Other Ministerial City Actions. Ministerial permits/approvals (e.g., grading permits and building permits) would be issued by the City to allow site preparation, curb cuts, and connections to the utility infrastructure.

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3.0 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.

☐ Aesthetics	☐ Agriculture & Forest Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities/Service Systems	☐ Mandatory Findings of Significance

DETERMINATION. On the basis of this initial evaluation:

1. I find that the proposed project **could not** have a significant effect on the environment, and a **NEGATIVE DECLARATION** would be prepared. ☐

2. 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. ☒

3. I find the proposed project **may have a significant effect** on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐

4. 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. ☐

5. 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. ☐

for McLee — 1/21/15
Project Planner — Date

Claire L. Flan — January 19, 2015
Assistant Development Services Director — Date

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 (mitigation measures from earlier analyses may be cross-referenced, as discussed below).
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 identity the following:
   a. Earlier Analysis Used. Identify and state where they are available for review.
   b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c. Mitigation Measures. For effects that are "Less Than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9. The 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.

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3.1 AESTHETICS

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
(b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
(c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☒	☐
(d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The City of Costa Mesa (City) encompasses 16 square miles, and is located in central Orange County. The City is bordered by the cities of Santa Ana, Irvine, Newport Beach, Huntington Beach, and Fountain Valley. The City is a commercial and industrial center serving areas beyond Orange County. Costa Mesa offers 28 parks, a municipal golf course, 20 public schools, and three libraries (City of Costa Mesa 2014c). The Proposed Project is located within the City of Costa Mesa on the south side of the juncture of State Route-55 (SR-55) and State Route-73 (SR-73). The Santa Ana Country Club is located approximately 600 feet southwest of the project site. The existing Ganahl Lumber yard is located directly to the southeast of the project site. The Proposed Project is surrounded by general commercial, transportation, and residential land uses (Google Maps 2014). Access to the project site is currently provided by one driveway along Bristol Street. The project site currently contains a concrete wall, an asphalt paved entrance area, landscaping along the Bristol Street frontage, and an underground concrete flood channel (Santa Ana Delhi Channel) located beneath the project site.

3.1.2 Impact Analysis

(a) **No Impact.** The project site is surrounded primarily by roadways and commercial and residential development. The Proposed Project would be built directly south of the SR-55 and SR-73 junction, and would not obstruct long distance views from any public viewing areas. The City's General Plan does not designate any aesthetic or visual resources on or within the vicinity of the project site (City of Costa Mesa 2000). Variances are required for the overall building height to account for the roof canopy (34 feet), elevator overrun (approximately 40 feet), B Shed, and roofdeck parking. The maximum building height allowed in this commercial zone is 2 stories/30 feet.

Therefore, no impacts to scenic vistas would occur.

Mitigation Measures: No mitigation would be required.

(b) **No Impact.** The California Department of Transportation's (Caltrans) Landscape Architecture Program administers the Scenic Highway Program, contained in Streets and Highways Code Sections 260–263. State Highways are classified as either Officially Listed or Eligible. SR-55 and SR-73, which are located adjacent to the project site, are not identified as eligible or State-designated Scenic Highways (Caltrans 2014). Therefore, the Proposed Project does not have the potential to damage resources within a State-designated scenic highway. In addition, there are no

existing aesthetic or visual resources located on the project site or in the surrounding vicinity of the project site that have been designated in the City's General Plan (City of Costa Mesa 2000). Therefore, no impacts related to scenic resources would occur.

Mitigation Measures: No mitigation would be required.

(c) **Less Than Significant Impact.** The Proposed Project would be located within a primarily commercial area adjacent to SR-55 and SR-73 that includes the existing Ganahl Lumber Store. The project site is an empty lot designated for general commercial land use (City of Costa Mesa 2004). The Proposed Project is designed to be consistent with the architecture of the existing commercial buildings along Bristol Street and its buildings would be similar in size and scale to other buildings in the vicinity of the project, including the buildings on the existing Ganahl Lumber Store adjacent to the project site. Landscaping for the Proposed Project is designed to be visually pleasing and would reflect the project site's coastal location. Refer to Figures 2.4 and Figure 2.5 for elevations of Building A and architectural renderings of the Proposed Project, respectively. The Proposed Project would not create shade/shadow effects on the neighboring land uses because no adjacent land uses are located in close enough proximity to the Proposed Project to experience shade and shadow impacts from the structures associated with the Proposed Project. Therefore, the Proposed Project would not degrade the existing character or quality of the site and its surroundings. No impact would occur.

Mitigation Measures: No mitigation would be required.

(d) **Less than Significant Impact.** The Proposed Project would include light fixtures for parking lots, pedestrian pathways, building entries, and landscaping. These light fixtures would provide increased visibility and highlight elements of buildings and trees. Light fixtures at the edge of the project site would be shielded and directed downward to avoid spillover effects on surrounding properties. Impacts from lighting would be less than significant. The reflection of sunlight is the primary potential producer of glare from glass and metallic surfaces. The Proposed Project would have the potential to produce glare from glass and metallic materials used on its buildings and from the proposed solar photovoltaic (PV) system. The reflection of light is an optical phenomenon governed by the law of reflection. This law states that the direction of incoming light (incident ray) and the direction of the outgoing light reflected (reflected ray) make the same angle with respect to the surface normal, thus the angle of incidence equals the angle of reflection. The law of reflection shows how light responds when it contacts a truly spectral surface like a mirror. The sales area of Building A would feature glass on its south and west facades to allow for a visual connection of the materials in the inside of the store and the materials on the outside. There is a potential for glare from sunlight reflecting off the glass surfaces. However, glare from glass surfaces of Building A would be partially shielded by other structures on the site (B Shed) and trees planted as part of the landscaping plan. Building overhangs that are louvered over glazing areas would be used to harness the natural light while blocking solar gain and glare from direct sunlight. Furthermore, the height (single story) and orientation of Building A would minimize the amount of glare that could potentially result from sunlight reflecting from glass surfaces.

A solar PV system would be built on the roofs of Building A and the B Shed. The solar panel deck is proposed at height of 33 feet 9 inches from grade. A solar panel differs from a truly spectral surface in that it has microscopically irregular surface designed to trap the incident rays of sunlight with the intention of generating additional photon collisions and energy production. Any incident radiation, if not absorbed or transmitted, would be reflected. With the current advancements in PV technology, a typical untreated silicon solar cell absorbs two-thirds of the sunlight reaching the panel's surface, meaning only one-third of the sunlight reaching the surface of the panel would be reflected. Recent improvements in PV technology have led to even greater light absorption efficiency through the use of nanoengineered anti-reflective materials applied directly to solar cells that allow the cells to absorb light from virtually the entire solar spectrum. The intent of solar technology is to increase the efficiency by absorbing as much light as possible which further reduces reflection and glare. Most solar glass sheets (the glass layer that covers the PV panels) are typically tempered glass that is treated with an anti-reflective or diffusion coating that further diffuses (scatters) the intensity of glare produced. This type of diffused glare loses intensity as the distance from the reflection source increases. As such, the proposed PV system is not expected to generate substantial glare. Impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

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3.2 AGRICULTURE AND FOREST RESOURCES

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Impact Analysis

(a) **No Impact.** The Proposed Project is not located within any farmland uses (City of Costa Mesa 2004). The project area is not identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (California Department of Conservation 2010). No impact would occur.

Mitigation Measures: No mitigation would be required.

(b) **No Impact.** The project site is not zoned for agricultural use or is it subject to a Williamson Act contract (City of Costa Mesa 2000; Department of Conservation 2004). No impact would occur.

Mitigation Measures: No mitigation would be required.

(c) **No Impact.** The project site is not zoned for forest land, timberland, or timberland production (City of Costa Mesa 2000). No impact would occur.

Mitigation Measures: No mitigation would be required.

(d) **No Impact.** The project site is located in a developed area with commercial land uses. There are no forest land uses in the vicinity of the project site. No impact would occur.

Mitigation Measures: No mitigation would be required.

(e) **No Impact.** The project site and the surrounding properties are not currently used for agriculture or considered forest land. No impact would occur.

Mitigation Measures: No mitigation would be required.

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3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
(b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☒	☐
(c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☒	☐
(d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
(e) Create objectionable odors affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Introduction

An air quality and global climate change impact analysis report (Appendix A) was completed for the Proposed Project by Kunzman Associates, Inc. (Kunzman 2014a). The findings of this report are summarized in the following sections.

3.3.2 Environmental Setting

The project site is located within the South Coast Air Basin (SCAB), and is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD). The SCAB has been designated by the California Air Resources Board (ARB) as a nonattainment area for ozone (O_3), particulate matter of 10 microns or less in diameter (PM_{10}), and particulate matter of 2.5 microns or less in diameter ($PM_{2.5}$). Currently, the SCAB is in attainment with the ambient air quality standards for carbon monoxide (CO), lead, sulfur dioxide (SO_2), nitrogen dioxide (NO_2), and sulfates and is unclassified for visibility-reducing particles and hydrogen sulfide (Kunzman 2014a).

3.3.3 Impact Analysis

(a) **No Impact.** An Air Quality Management Plan (AQMP) describes air pollution control strategies to be taken by a city, county, or region classified as a nonattainment area. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. California Environmental Quality Act (CEQA) requires that certain projects be analyzed for consistency with the AQMP.

A project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

Because of California's nonattainment status for O_3, $PM_{2.5}$, and PM_{10}, if project-generated emissions of the O_3 precursor pollutants (i.e., reactive organic gases [ROG] and nitrogen oxides NO_X), $PM_{2.5}$, or PM_{10} would exceed the SCAQMD's significance thresholds, then the project would be considered to conflict with the AQMP. However, short term construction impacts and long term operation impacts were found to be below thresholds of significance. Therefore, the Proposed Project is not projected to contribute to the exceedance of any air pollutant concentration standards and is found to be consistent with the AQMP for the first criterion.

(2) Whether the project will exceed the assumptions in the AQMP in 2010 or increments based on the year of project buildout and phase.

Consistency with the AQMP assumptions is determined by performing an analysis of the Proposed Project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the Proposed Project are based on the same forecasts as the AQMP. The Regional Comprehensive Plan and Guide (RCP&G) consists of three sections: Core Chapters, Ancillary Chapters, and Bridge Chapters. The Growth Management, Regional Mobility, Air Quality, Water Quality, and Hazardous Waste Management chapters constitute the Core Chapters of the document. These chapters currently respond directly to federal and state requirements placed on the Southern California Association of Governments (SCAG). Local governments are required to use these as the basis of their plans for purposes of consistency with applicable regional plans under CEQA. For the Proposed Project, the City of Costa Mesa General Plan defines the assumptions that are represented in the AQMP.

The project site is zoned "C1 Local Business" and has a land use designation of "General Commercial" in the City of Costa Mesa Zoning Map and General Plan Land Use Map, respectively. Based on the City of Costa Mesa Industrial Development Standards, the project site could be developed with up to 193,700 square feet (sf) of "mini-warehouse" floor area. Therefore, the Proposed Project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion. In addition, the Proposed Project would exceed Title 24 requirements and the Mandatory Measures outlined in the California Green Building Standards Code (Cal Green Code) intended to improve air quality.

Based on the above, the Proposed Project would not result in an inconsistency with the SCAQMD AQMP. No impact would occur.

Mitigation Measures: No mitigation would be required.

(b) **Less Than Significant Impact.** The Proposed Project's air quality impacts are attributable to construction and operation activities that have the potential to generate air emissions, toxic air contaminant emissions, and odor impacts. Air pollutant emissions for both the construction and operational phases of the Proposed Project were estimated using the CalEEMod program (Version 2013.2.2) (Kunzman 2014a).

Construction Impacts. Emissions associated with construction would include the following: emissions of fugitive dust from surface disturbance activities, emissions of combustion pollutants from heavy construction equipment, emissions of combustion pollutants from worker vehicles,

and emissions of combustion pollutants from heavy-duty vehicles transporting construction materials and equipment to the site. The following emissions could result from construction activities associated with the Proposed Project:

Construction Emissions. There would be emissions from soil disturbance (fugitive dust), architectural coating application, and equipment exhaust during construction of the Proposed Project.

Fugitive Dust. Blowing dust, combined with engine emissions, produces airborne matter referred to in air quality studies as PM_{10}, $PM_{2.5}$, or fugitive dust. Fugitive dust emissions are generally associated with land clearing, exposure, and cut-and-fill operations. Once construction activities are complete, no further fugitive dust emissions occur. Dust generated daily during construction would vary substantially, depending on the level of activity, the specific operations, and weather conditions. Nearby sensitive receptors and on-site workers may be exposed to blowing dust, depending upon prevailing wind conditions. Fugitive dust would also be generated as construction equipment or trucks travel on unpaved areas of the construction site. Compliance with SCAQMD Rules 402 and 403 would ensure that fugitive dust (PM_{10} and $PM_{2.5}$) generation would be less than significant.

Architectural Coatings. Architectural coatings contain volatile organic compounds (VOCs) that are similar to ROGs and are part of the O_3 precursors.

Odors. Heavy-duty equipment in the project area during construction would emit odors. However, the construction activity would cease to occur after individual construction is completed. No other sources of objectionable odors have been identified for the Proposed Project.

SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause injury or damage to business or property." The proposed uses are not anticipated to emit any objectionable odors. Therefore, objectionable odors posing a health risk to potential on-site and existing off-site uses would not occur as a result of the Proposed Project.

Naturally Occurring Asbestos. The Proposed Project is located in Orange County, which is not among the counties that are found to have serpentine and ultramafic rock in their soils. In addition, no serpentine or ultramafic rock has been found in the project vicinity in the past 10 years. Therefore, the potential risk for naturally occurring asbestos (NOA) during project construction is small and less than significant.

Equipment Exhaust and Related Construction Activities. Construction of would include the following tasks: grading, building, and paving. While both the site preparation and grading phases involve heavy-duty diesel-powered equipment and both activities generate large amounts of fugitive dust, the grading phase typically generates greater overall emissions due to the larger equipment needed for earthmoving.

To evaluate potential impacts related to construction activities, specific criteria are used. The criteria include daily emissions thresholds, compliance with State and national air quality standards, and conformity with the existing State Implementation Plan (SIP) or existing air quality attainment plans. Specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in the SCAQMD *CEQA Air Quality Handbook.*

Thresholds for Construction Emissions. The following daily thresholds for construction emissions have been established by the SCAQMD and are used in the analysis of air quality impacts for the Proposed Project:

- 75 pounds per day (lbs/day) of ROG
- 100 lbs/day of NO_X
- 550 lbs/day of carbon monoxide (CO)
- 150 lbs/day of PM_{10}
- 55 lbs/day of $PM_{2.5}$
- 150 lbs/day of sulfur oxide (SO_X)

Projects in the SCAB with construction-related emissions that exceed any of the emission thresholds above are considered potentially significant by the SCAQMD.

Table 3.3.A shows estimated construction-related pollutant emissions associated with the Proposed Project.

As shown in Table 3.3.A, none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from construction of the Proposed Project.

Operational Impacts

The ongoing operation of the Proposed Project would result in a long-term increase in air quality emissions. This increase would be mainly due to emissions from the project generated vehicle trips and through operational emissions from the ongoing use of the Proposed Project.

The Proposed Project would result in net increases in both stationary- and mobile-source emissions. The stationary-source emissions would come from many sources, including the use of consumer products, landscape equipment, general energy consumption, and solid waste. Mobile sources include emissions from vehicle trips and associated miles traveled generated by the Proposed Project.

The worst-case summer or winter volatile organic compounds (VOC), nitrogen oxides (NO_X), CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions created from the Proposed Project's long-term operations have been calculated and are summarized below in Table 3.3.B.

Table 3.3.A: Construction Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Grading						
On-Site	3.87	41.10	26.75	0.03	4.83	3.48
Off-Site	0.06	0.08	1.00	0.00	0.17	0.05
Total	**3.93**	**41.18**	**27.76**	**0.03**	**5.00**	**3.53**
Building Construction						
On-Site	3.87	31.25	18.93	0.03	2.23	2.10
Off-Site	0.89	5.28	11.74	0.02	1.49	0.46
Total	**4.75**	**36.53**	**30.67**	**0.05**	**3.72**	**2.56**
Paving						
On-Site	2.79	25.18	14.98	0.02	1.41	1.30
Off-Site	0.06	0.07	0.91	0.00	0.17	0.05
Total	**2.84**	**25.25**	**15.88**	**0.02**	**1.58**	**1.35**
Architectural Coating						
On-Site	18.20	2.57	1.90	0.00	0.22	0.22
Off-Site	0.08	0.10	1.21	0.00	0.23	0.06
Total	**18.28**	**2.67**	**3.11**	**0.01**	**0.45**	**0.28**
Total of overlapping phases	**26**	**64**	**50**	**0**	**6**	**4**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Thresholds	No	No	No	No	No	No

Source: Kunzman (2014a).
CO = carbon monoxide
NO_X = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SO_2 = sulfur dioxide
SCAQMD = South Coast Air Quality Management District

Table 3.3.B: Operational Criteria Pollutant Regional Air Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Area Sources	5.56	0.00	0.01	0.00	0.00	0.00
Energy Usage	0.00	0.04	0.04	0.00	0.00	0.00
Mobile Sources	6.81	11.52	56.68	0.12	8.67	2.41
Total Emissions	**12**	**12**	**57**	**0**	**9**	**2**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Source: Kunzman (2014a).
CO = carbon monoxide
NO_X = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SO_2 = sulfur dioxide
SCAQMD = South Coast Air Quality Management District

Projects in the SCAB with operations-related emissions that exceed any of the emission thresholds are considered potentially significant by the SCAQMD. Because none of the modeled emissions associated with the Proposed Project's ongoing operations activities would exceed the

SCAQMD regional thresholds of significance, the Proposed Project would result in less than significant regional air quality impacts during operations.

CO Hot-Spot Analysis. There is a direct relationship between traffic/circulation congestion and CO impacts since exhaust fumes from vehicular traffic are the primary source of CO, a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as the distance from the source (intersection) increases. The highest CO concentrations are typically found in areas directly adjacent to congested roadway intersections. These areas of vehicle congestion have historically had the potential to create pockets of elevated levels of CO that are called "hot spots." However, with the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the project vicinity have steadily declined. (State of California Air Resources Board [ARB]).

Micro-scale air quality impacts have traditionally been analyzed in environmental documents for which the region was a nonattainment area for CO. However, the SCAQMD has demonstrated in the CO attainment re-designation request to the Environmental Protection Agency (EPA) that there are no "hot spots" anywhere in Southern California, even at intersections with much higher volumes, much worst congestion, and much higher background CO levels than anywhere in the vicinity of the project site. If the worst-case intersections in the SCAB have no "hot spot" potential, any local impacts near the project site would be well below thresholds with an even larger margin of safety. Therefore, no project-specific CO hot-spot analysis was conducted.

Construction and operation of the Proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, and therefore, a less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(c) **Less Than Significant Impact.** As noted earlier, the project site is in an area considered a nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. As described in the response to question 3.3 (b) of this Initial Study, neither short-term construction of the Proposed Project nor long-term operation of the Proposed Project would exceed significance thresholds for ozone, PM_{10}, and $PM_{2.5}$. Because the Proposed Project is not considered to result in a significant impact, the Proposed Project is not considered to result in a cumulatively considerable net increase of ozone, PM_{10}, and $PM_{2.5}$ emissions. Impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(d) **Less Than Significant Impact.** For air quality analysis purposes, the nearest sensitive receptors to the project site are the apartments located across Bristol Street from the existing Ganahl Lumber facility, southeast of the project site, at a distance of approximately 313 feet from the project boundary. Table 3.3.C shows the on-site phases and the localized significance threshold (LST) emissions thresholds.

Table 3.3.C Local Construction Emissions at the Nearest Receptor

Phase	On-Site Pollutant Emissions (pounds/day)			
	NO_X	CO	PM_{10}	$PM_{2.5}$
Grading	41.10	26.75	4.83	3.48
Building Construction	31.25	18.93	2.23	2.10
Paving	25.18	14.98	1.41	1.30
Architectural Coating	2.57	1.90	0.22	0.22
SCAQMD Threshold for 50 meters (164 feet)[1]	**128**	**1,089**	**21**	**7**
Exceeds Threshold?	No	No	No	No

Source: Kunzman (2014a).

[1] The estimated distance from the project site to the nearest sensitive receptor (apartments) located southeast of the project site is 313 feet (95 meters). As the distance is less than 100 meters, the 50 meter thresholds were used.

CO = carbon monoxide
NO_X = nitrogen oxide
PM_{10} = particulate matter less than 10 microns in size
$PM_{2.5}$ = particulate matter less than 2.5 microns in size
SO_2 = sulfur dioxide
SCAQMD = South Coast Air Quality Management District

The data provided in Table 3.3.C shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds at the nearest sensitive receptors. During construction, contractors would be required to implement measures to reduce or eliminate emissions by following SCAQMD standard construction practices. During operation, the proposed Mill Shed would include a SCAQMD compliant sawdust collection system that would reduce air quality impacts to nearby sensitive receptors. Therefore, a less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(e) **Less Than Significant Impact.**

Construction Impacts

Potential sources that may emit odors during construction activities include the application of materials such as asphalt pavement and diesel exhaust emissions. The objectionable odors that may be produced during the construction process are short term in nature and the odor emissions are expected cease upon the drying or hardening of the odor producing materials. Due to the short term nature and limited amounts of odor producing materials being utilized, a less than significant impact related to odors would occur during construction of the Proposed Project.

Operational Impacts

Potential sources that may emit odors during the ongoing operations of the Proposed Project would include odor emissions from diesel truck emissions and trash storage areas. Due to the distance of the nearest receptors from the project site and through compliance with SCAQMD's Rule 402, no significant impact related to odors would occur during the ongoing operations of the Proposed Project.

Mitigation Measures: No mitigation would be required.

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3.4 BIOLOGICAL RESOURCES

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
(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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
(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?	☐	☐	☒	☐
(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?	☐	☐	☒	☐
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
(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?	☐	☐	☐	☒

3.4.1 Introduction

A biological technical report (see Appendix B) was prepared for the Proposed Project by ECORP Consulting Inc. (ECORP 2014a). The purpose of the assessment was to document the existing biological resources, to assess the habitat for its potential to support sensitive plant and wildlife species, and to determine whether project implementation would impact sensitive biological resources, as required under California Environmental Quality Act (CEQA) (ECORP 2014a). A biological reconnaissance survey was performed by ECORP biologists on May 23, 2014. Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature search using the California Department of Fish and Wildlife's (CDFW) Natural Diversity Database (CNDDB) and United States Fish and Wildlife Service (USFWS) species lists to determine the special-status species that have been documented in the project vicinity. Using this information and observations in the field, a list of special-status plant and animal species that may have the potential to occur within the project site was generated. A follow-up visit was conducted on December 15, 2014, to confirm site conditions, including the presence of potential areas subject to United States Army Corps of Engineers (USACE) jurisdiction pursuant to Section 404 of the Clean Water Act and CDFW jurisdiction pursuant to Section 1602 of the State of California Fish and Game Code. The Biological Technical Report is summarized below.

3.4.2 Environmental Setting

Vegetation Communities. The project site is currently composed of disturbed or developed areas and ornamentals plant species. Plant species observed within these land cover types include ornamental

trees and herbaceous plants and non-native or invasive weedy species. Ornamental vegetation includes eucalyptus (*Eucalyptus* sp.), California fan palm (*Washingtonia filifera),* crimson bottlebrush (*Callistemon citrinus*), and Asiatic lily (*Lilium* sp.). Non-native and invasive weedy species include bromes (*Bromus* sp.), black mustard (*Brassica nigra*), and yellow star thistle (*Centaurea solstitialis*). Of the 27 plant species observed on the project site a total of 7 species are native and the other 20 are exotic species (ECORP 2014a).

Special-Status Plants. The literature search documented 37 special-status plant species (five federally and/or state listed) in the project vicinity. The follow-up visit conducted by ECORP biologists on December 15, 2014, confirmed site conditions, including lack of habitat for the special-status plant species. Given the site conditions (historical and present), the general lack of vegetation/cover, soil conditions, special-status plant species that had been previously recorded in nearby locations, such as southern tarplant (*Centromadia parryi* ssp. *australis*), all were determined to be presumed absent. The age of the CNDDB records were also considered when determining potential. A complete list of the 37 special-status plant species, with details regarding blooming periods, habitat requirements, and potential for occurrence designations can be found in the Biological Technical Report (ECORP 2014a).

Wildlife. The project site provides habitat for species adapted to high levels of disturbance and urban environments. Thirteen wildlife species were observed during the reconnaissance visit. Common species observed included western fence lizard (*Sceloporus occidentalis*), house finch (*Haemorhous mexicanus*), and Bottae's pocket gopher (*Thomomys bottae*). Two red-tailed hawks (*Buteo jamaicensis*) had been observed during a previous site visit on February 13, 2014 (ECORP 2014a). A complete list of wildlife species observed or detected during the survey in and adjacent to the project site can be found in the Biological Technical Report. Other common species expected to occur in and adjacent to the project site include side-blotched lizard (*Uta stansburiana*), common raven (*Corvus corax*), Anna's hummingbird (*Calypte anna*), and California ground squirrel (*Spermophilus beecheyi*) (ECORP 2014a).

Special-Status Wildlife. The literature search documented 33 special-status wildlife species (16 federally and/or state-listed species) in the vicinity of the project site. Three of these wildlife species were determined to have a low to moderate potential to occur on the project site; the American badger (*Taxidea taxus*), the Western yellow bat (*Lasiurus xanthinus*), and the white-tailed kite (*Elanus leucurus*). The remaining 30 species were presumed to be absent from the project site. None of the special-status wildlife species with a potential to occur in the area were observed during the reconnaissance survey (ECORP 2014a). A complete list of the 33 special-status wildlife species, with details regarding habitat requirements and potential for occurrence designations can be found in the Biological Technical Report.

Soils. Soil types on the project site were determined using the Natural Resources Conservation Service (NRCS) Web Soil Survey. Soils within the project site consist entirely of Myford sandy loam, 2 to 9 percent slopes (ECORP 2014a). The soils of the Myford Series are deep, moderately well drained soils formed on terraces. Principal vegetation associated with this soil are annual grasses and forbs with some scattered low-growing brush.

Potential Waters of the United States. As described above, the project site was examined to identify potential USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA) and CDFW

jurisdiction pursuant to Section 1602 of the State of California Fish and Game Code. The survey of the project site identified two features that are potentially jurisdictional to the USACE, CDFW, and the Santa Ana Regional Water Quality Control Board (SARWQCB): the Santa Ana Delhi Channel and a small drainage ditch located in the northern portion of the project site that parallels the transition ramp from northbound SR-55 to southbound SR-73 (ECORP 2014a).

Wildlife Movement Corridors. The project site is heavily disturbed and contains very little cover that would only allow for limited movement of smaller resident populations of wildlife. Furthermore, the entire project site is cut off from any large blocks of habitat that would allow the movement of wildlife species. Although the project site is within one mile of the Santa Ana Country Club and within two miles of the Upper Newport Bay Nature Preserve, there is no connecting corridor between the project site and these areas (ECORP 2014a).

3.4.3 Impact Analysis

(a) **Less than Significant Impact.** The project site is located in an urbanized area characterized by land that is developed or highly disturbed and that support non-native vegetation communities and ornamental landscaping. None of the 37 special-status plant species or 33 special-status wildlife species identified in the literature search were observed on the project site (ECORP 2014a). As such, the project site does not contain any habitat that would support a candidate, sensitive, or special-status plant species. While no special-status wildlife or plant species were observed during the field surveys, there is a potential for the project area to support nesting birds in small patches of vegetation and structures adjacent to the project site. Nesting birds are protected under both the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code (Sections 3503, 3503.5, 3513, and 3800) and cannot be subjected to take (as defined in California Fish and Game Code) during the bird breeding season, which typically runs from February 15 through August 31. If construction of the Proposed Project occurs during the bird breeding season, ground-disturbing construction activities could indirectly affect native and nongame birds and their nests through increased noise disturbances. Impacts would be less than significant with the implementation of Condition of Approval B-1.

Condition of Approval:

B-1: **Compliance with Migratory Bird Treaty Act.** If construction activities occur within the bird breeding season (February 15 through August 31), the Applicant (or its contractor) shall retain a qualified biologist to conduct a pre-construction nesting bird survey no more than 30 days prior to the start of construction. The nesting survey shall include the Project site and areas immediately adjacent to the site that could potentially be affected by Project activities such as noise, human activity, and dust, etc. If active bird nests are found within 100 feet of the designated construction area on the project site, the qualified biologist will establish an appropriate buffer zone around the active nestsProject activities shall be avoided within the buffer zone until the nest is deemed no longer active by the biologist.

Prior to commencement of grading activities and issuance of any building permits, the City of Costa Mesa Director of Community Development, or designee, shall verify that all project grading and construction plans include specific documentation regarding the Migratory Bird Treaty Act (MBTA) requirements for a nesting bird

survey should construction or grading occur from February 15 through August 31, that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.

Mitigation Measures: No mitigation would be required.

(b) **No Impact.** The project site is located in an urban area that does not contain native habitat. Sensitive habitats include those vegetation communities which are considered rare within the region, are considered sensitive by the State of California, and are listed as sensitive under local conservation plans. The project site supports no riparian habitat or other sensitive natural community (ECORP 2014a). No impact would occur.

Mitigation Measures: No mitigation would be required.

(c) **Less than Significant Impact.** The project site is located in an urban area that does not contain wetlands or native habitat; however, two potential jurisdictional water features (drainages) are present on the project site: the Santa Ana Delhi Channel and a small drainage ditch located in the northern portion of the project site (ECORP 2014a). The Proposed Project would not remove, fill, or otherwise interrupt the Santa Ana Delhi Channel, as it would be intentionally avoided per project plans; no impact would occur. However, the drainage ditch may be impacted by construction of the Proposed Project. Mitigation Measure B-2 would require the Applicant to verify USACE jurisdiction over the drainage ditch and, if necessary, obtain a CWA Section 404 permit from the USACE and implement any associated permit conditions. Mitigation Measure B-2 would also require the Applicant to submit a Streambed Alteration Notification to CDFW to facilitate its determination of the drainage as a "streambed" regulated by Section 1602 of the California Fish and Game Code. In addition, Condition of Approval B-2 would require the Applicant to obtain a Water Quality Certification or waiver pursuant to Section 401 of the CWA from the SARWQCB if the USACE determines that a CWA Section 404 permit would be required. With implementation of Condition of Approval B-2, impacts would be less than significant.

Condition of Approval:

B-2: **Permitting for Drainage Impacts.** Prior to the commencement of grading activities that may result in the placement of fill material into the potentially jurisdictional drainage feature on the northern portion of the project site, the Applicant shall prepare and submit to the United States Army Corps of Engineers (USACE) for verification a "Preliminary Delineation Report for Water of the United States" and a Streambed Alteration Notification package to the California Department of Fish and Wildlife (CDFW) for the drainage feature. If these agencies determine that the feature is not regulated under their jurisdiction, then no further mitigation is necessary. However, if the USACE considers the feature to be jurisdictional, then a Clean Water Act Section 404 permit shall be obtained from the USACE, and any permit conditions shall be agreed to, prior to the start of grading activities in the affected area. If the CDFW determines that the drainage is a regulated "streambed," then a Streambed Alteration Agreement shall be entered into with the CDFW and any

associated conditions shall be agreed to prior to the start of grading activities in the affected area. If the USACE considers the feature to be jurisdictional, the Applicant shall obtain a Water Quality Certification or waiver pursuant to Section 401 of the CWA from the Santa Ana Regional Water Quality Control Board prior to the start of grading activities in the affected area.

(d) **Less than Significant Impact.** The project site is located in an urban area that does not contain native habitat, and is not located near a native wildlife nursery site. The project site is located in an area characterized by commercial uses and does not connect significant open spaces; therefore, it does not function as a major wildlife movement corridor. All native birds, including raptors, are protected under California Fish and Game Code and the Federal MBTA. As previously stated in the response to question 3.4 (a), prior to commencing ground disturbing activities during the nesting bird season, Condition of Approval B-1 shall be implemented to ensure that there are no impacts to nesting birds. With implementation of Condition of Approval B-1, impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

Conditions of Approval: Refer to Condition of Approval B-1 above.

(e) **No Impact.** The Proposed Project would not disturb any riparian areas. The proposed landscape concept plan is subject to compliance with the City's landscape standards for commercial zones. Therefore, no conflicts with local ordinances would occur. No impact would occur.

Mitigation Measures: No mitigation would be required.

(f) **No Impact.** The project site is not located within a "Habitat Reserve System" or is any vegetation type on the project site designated a "Covered Habitat" as identified by the Central and Coastal Subregion Natural Community Conservation Plan/ Habitat Conservation Plan (NCCP/HCP) (County of Orange 1996). Therefore, no impact would occur.

Mitigation Measures: No mitigation would be required.

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3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐
(d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

3.5.1 Introduction

A cultural resources survey was conducted by ECORP Consulting, Inc. in July 2014 for the Proposed Project (Appendix C). The purpose of the investigation was to identify cultural resources that could be affected by the Proposed Project (ECORP 2014b). A paleontological records search was completed by the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County (ECORP 2014c). A cultural resources records search was conducted at the South Central Coastal Archaeological Information Center (SCCIC) and it indicated that the project area has not been previously surveyed and that there are no previously recorded cultural resources in the project area (ECORP 2014b). A search of the Sacred Land File of the Native American Heritage Commission did not indicate the presence of any Native American cultural resources in the immediate area of the project site (LSA Associates, Inc. [LSA] 2014). The Cultural Resource Survey, the Paleontological Records Search, and the Sacred Lands File Search are all included in Appendix C. In addition, letters were sent to Native American groups to inform them of the project and to ask for their input. An intensive field survey was conducted on June 25, 2014, by ECORP. The project site is mostly paved with asphalt and in some places hard packed gravel. There are no buildings or structures on the site. Three concrete pads that served as foundations for small buildings are present. No prehistoric or historical archaeological material was observed on the project site (ECORP 2014b).

California Environmental Quality Act (CEQA) (Title 14, California Code of Regulations [CCR], Article 5, Section 15064.5) applies to cultural resources of the historical and prehistoric periods. Any project with an effect that may cause a substantial adverse change in the significance of a cultural resource, either directly or indirectly, is a project that may have a significant impact on the environment. As a result, such a project would require avoidance or mitigation of impacts to those affected resources. Significant cultural resources must meet at least one of four criteria that define eligibility for listing on either the California Register of Historical Resources (California Register) (Public Resources Code [PRC] Section 5024.1, Title 14 CCR, Section 4852) or the National Register of Historic Places (National Register) (36 CFR 60.4). Cultural resources eligible for listing on the National Register are considered Historic Properties under 36 CFR Part 800 and are automatically eligible for the California Register. Resources listed on or eligible for inclusion in the California Register are considered Historical Resources under CEQA.

3.5.2 Impact Analysis

(a) **Less than Significant Impact.** The cultural resources records search indicated that the project area has not been previously surveyed and that there are no previously recorded historical

resources in the project area (ECORP 2014b). The project site is currently vacant. The intensive field survey conducted for the Proposed Project did not discover any historical resources on the project site. Therefore, impacts to historic resources as a result of the Proposed Project would be less than significant.

Mitigation Measure: No mitigation would be required.

(b) **Less than Significant.** No archaeological resources have been previously recorded on the site and none were recorded during the field survey (ECORP 2014b). Further, no Native American cultural resources have been identified in the immediate area of the project site (LSA 2014). However, there remains the possibility that the Proposed Project may impact unknown buried archaeological resources as a result of ground disturbing construction activities. Therefore, Condition of Approval CR-1 has been proposed, which requires the City to retain a qualified archaeologist to establish, in cooperation with the Applicant and the City, procedures for temporarily halting or redirecting work to facilitate evaluation of cultural resources that may be discovered during construction activities. With the implementation of Conditions of Approval CR-1, impacts to unknown archaeological resources during construction would be less than significant.

At the completion of project construction, the Proposed Project would not result in further disturbance of native soils on the project site and, therefore, operation of the Proposed Project would not result in a substantial adverse change in the significance of an archeological resource as defined in Section 15064.5 of the *State CEQA Guidelines*. Therefore, operation of the Proposed Project would not cause a substantial adverse change in the significance of any known archaeological resource.

Conditions of Approval:

CR-1: **Archaeological Monitors.** Prior to issuance of grading permits, and in adherence to the recommendations of the cultural resources survey, the Applicant shall retain a qualified archaeological monitor, subject to review and approval by the City of Costa Mesa (City) Community Development Director, or designee. This monitor shall be present at the pregrade conference in order to explain the cultural mitigation measures associated with the Proposed Project. The monitor, in conjunction with the City and the Applicant will prepare a plan that includes: (1) a description of circumstances that would result in the halting of work at the project site (e.g., what is considered a "significant" archaeological site); (2) a description of procedures for halting work on site and notification procedures; and (3) a description of monitoring reporting procedures. If any significant historical resources, archaeological resources, or human remains are found during monitoring, work shall stop within the immediate vicinity (precise area to be determined by the archaeologist in the field) of the resource until such time as the resource can be evaluated by an archaeologist and any other appropriate individuals. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. To the extent feasible, project activities shall avoid these deposits. Where avoidance is not feasible, the archaeological deposits shall be evaluated for their eligibility for listing in the California Register of Historic Places. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, adverse effects on the deposits must be

avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to, the following: excavation of the deposit in accordance with a data recovery plan (see California Code of Regulations Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; an interpretive display of recovered archaeological materials at a local school, museum, or library; and public lectures at local schools and/or historical societies on the findings and significance of the site and recovered archaeological materials.

(c) **Less than Significant**. A paleontological records search was completed by the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County (ECORP 2014c). Shallow deposits in the project area consist of marine younger Quaternary Terrace deposits. These deposits typically do not contain significant vertebrate fossils. The marine younger Quaternary Terrace has a low potential to contain fossil resources. The marine younger Quaternary Terrace deposits overlie older Quaternary deposits in the subsurface which has high potential to contain significant vertebrate fossils. Fossils recovered from these sediments in the project vicinity include fossil sea turtle (Cheloniidae), camel (Camelidae), and mammoth (Mammuthus sp.) bones. It is estimated that the older Quaternary deposits begin at a depth of about 10 feet below surface in the project area. Therefore, if project excavation extends below 10 feet there is a potential for unknown buried paleontological resources to be affected. With implementation of Condition of Approval CR-2, which requires the preparation of a program to mitigate impacts to paleontological resources if excavation activities extend below 10 feet, impacts to unknown paleontological resources would be less than significant.

At the completion of project construction, the Proposed Project would not result in further disturbance of native soils on the project site and, therefore, operation of the Proposed Project would not result in a substantial adverse change in the significance of a paleontological resource as defined in Section 15064.5 of the *State CEQA Guidelines*.

Condition of Approval:

CR-2: Paleontological Resources Impact Mitigation Program. If excavation activities associated with the Proposed Project are expected to extend below 10 feet, the Applicant shall retain a qualified paleontologist, subject to the review and approval of the City of Costa Mesa's (City) Community Development Director, or designee, to prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Proposed Project prior to issuance of any grading permits. The PRIMP shall be consistent with the guidelines of the Society of Vertebrate Paleontology (SVP) and shall include, but not be limited to, the following:

- The paleontologist, or his/her representative, shall attend a preconstruction meeting.
- A qualified paleontological monitor working under the direction of an Orange County certified paleontologist shall "spot check" grading within the project site. Initially, spot checks are recommended for 2 to 3 hours twice per week during grading. If fossil resources are noted during the spot check, the monitoring level shall be increased to full time for the remaining duration of the grading.

- In the event that paleontological resources are encountered when a paleontological monitor is not present, work in the immediate area of the find shall be redirected and the paleontologist contacted to assess the find for scientific significance. The paleontologist shall make recommendations as to whether monitoring shall be required in these sediments on a full-time basis.
- Collected resources shall be prepared to the point of identification and permanent preservation. This includes washing and picking of mass samples to recover small vertebrate and invertebrate fossils and removal of surplus sediment around larger specimens to reduce the storage volume for the repository and the storage cost for the Applicant.
- Any collected resources shall be cataloged and curated into the permanent collections of an accredited scientific institution.
- At the conclusion of the monitoring program, a report of findings with an appended inventory of specimens shall be prepared. When submitted to the City, the report and inventory shall signify completion of the program to mitigate impacts to paleontological resources.

(d) **Less than Significant.** No formal cemeteries are located in or near the project area and no human remains have been reported in the project vicinity, based on the records search from SCCIC (ECORP 2014b). Most Native American human remains are found in prehistoric archaeological sites. No prehistoric archaeological sites have been recorded within 0.5 mile of the project area (ECORP 2014b). Further, no Native American cultural resources have been identified in the immediate area of the project site (LSA 2014). Therefore, the Proposed Project has little potential to disturb human remains. However, as a preventative measure, Condition of Approval CR-3 has been proposed to address the potential discovery of unknown human remains. Impacts to unknown resources would be less than significant with the implementation of Condition of Approval CR-3.

Condition of Approval:

CR-3: **Human Remains.** If human remains of any kind are found during construction, the requirements of California Environmental Quality Act (CEQA) Guidelines Section 15064.5(e) and Assembly Bill (AB) 2641 shall be followed. According to these requirements, all construction activities must cease immediately and the Orange County Coroner and a qualified archaeologist must be notified. The Coroner shall examine the remains and determine the next appropriate action based on his or her findings. If the Coroner determines the remains to be of Native American origin, he or she shall notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC shall then identify the most likely descendants (MLD) to be consulted regarding treatment and/or reburial of the remains. If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the Native American human remains and associated grave goods shall be buried with appropriate dignity on the property in a location not subject to further subsurface disturbance.

3.6 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☒	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
iv) Landslides?	☐	☐	☐	☒
(b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
(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?	☐	☒	☐	☐
(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?	☐	☒	☐	☐
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

3.6.1 Introduction

A geotechnical investigation of the project site was conducted by G.A. Nicoll and Associates, Inc. to obtain soil and geotechnical report (see Appendix D), and to provide preliminary design parameters and recommendations to the Proposed Project (G.A. Nicoll 2014).

3.6.2 Impact Analysis

(a) i) **Less than Significant Impact.** The nearest known earthquake faults to the project site are the active San Joaquin Hills Blind Thrust Fault, which is located approximately 1.5 miles to the south of the site, and the active Newport-Inglewood fault zone, which is located approximately 4.6 miles west of the site (United States Geological Survey [USGS], 2013a). The project site is not located within an Alquist-Priolo earthquake fault zone. Furthermore, ground rupture is not considered to be a constraint within the project area. No known faults traverse the project site or are located adjacent to the project site that may rupture during seismic activity (G.A. Nicoll 2014). A less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(a) ii) **Less than Significant Impact with Mitigation Incorporated.** Similar to most of Southern California, the project site is located in a seismically active region. In addition, the project site lies in relatively close proximity to several active faults that have historically generated moderate to occasionally high levels of ground motion. Therefore, in the event of an earthquake strong ground shaking is expected to occur on the project site. The Proposed

Project would not expose people or structures to strong seismic ground shaking greater than what currently exists. Design and construction would comply with current building codes and standards, which would reduce the risk of loss, injury, or death resulting from strong ground-shaking. Mitigation Measure GEO-1 requires the Applicant to comply with the recommendations of the *Geotechnical Investigation Report,* which stipulates appropriate seismic design provisions that would be implemented with project design and construction. With implementation of Mitigation Measure GEO-1, potential impacts related to seismic ground shaking would be reduced to a less than significant level.

Mitigation Measure:

GEO-1: **Incorporation of and Compliance with the Recommendations in the Geotechnical Report.** During project construction activities, the City of Costa Mesa (City)'s Community Development Director, Director of Public Works, or designee, shall ensure that all grading operations and construction are conducted in conformance with the recommendations included in the Geotechnical Report prepared for the Proposed Project that has been prepared by G.A. Nicoll., titled *Geotechnical Investigation Report* (June 13, 2014).

The Applicant shall require the project geotechnical consultant to assess whether the requirements in the *Preliminary Geotechnical Investigation* need to be modified or refined to address any changes in the project that occur prior to the start of grading. If the project geotechnical consultant identifies modifications or refinements to the requirements, the Applicant shall require appropriate changes to the final project design and specifications and shall submit any revised geotechnical reports to the Land Development Section of the Engineering Division, or designee, for approval prior to issuance of any grading or construction permits.

The Development Review Section of the Engineering Division, or designee, shall review grading plans prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the project plans. Design, grading, and construction shall be performed in accordance with the requirements of the City's Building Code and the California Building Code (CBC) applicable at the time of grading, as well as the recommendations of the project geotechnical consultant as summarized in a final report subject to review by the City's Building Official, or designee, prior to the start of grading activities. On-site inspection during grading shall be conducted by the project geotechnical consultant and the Development Review Section of the Engineering Division to ensure compliance with geotechnical specifications as incorporated into project plans.

(a) iii) **Less than Significant Impact with Mitigation Incorporated.** Liquefaction is a phenomenon where water-saturated granular soil loses shear strength during strong ground shaking produced by earthquakes. The loss of soil strength occurs when cyclic pore water pressure increases below the groundwater surface. Potential hazards due to liquefaction include the loss of bearing strength beneath structures, possibly causing foundation failure and/or significant settlements. The project site is located within the liquefaction potential

zone as shown on the State of California Seismic Hazard Zone Map, for the Newport Beach Quadrangle. However, based on the results of the site-specific geotechnical investigation, potential for liquefaction of soils present at the project site is very low (G.A. Nicoll 2014). Although the risk of liquefaction on the project site is low, measures included in the *Geotechnical Investigation Report* would serve to further reduce any potential liquefaction impacts. With implementation of Mitigation Measure GEO-1, potential impacts related to liquefaction would be reduced to a less than significant level.

Mitigation Measure: Refer to Mitigation Measure GEO-1 above.

(a) iv) **No Impact.** Seismically induced landslides and other slope failures are common occurrences during or soon after earthquakes in areas with significant ground slopes. The Proposed Project is not located within an area designated as having a potential for earthquake-induced land sliding, and the project site is relatively flat (G.A. Nicoll 2014). No impacts would occur.

Mitigation Measures: No mitigation would be required.

(b) **Less than Significant Impact**. Implementation of the Proposed Project would require ground-disturbing activities, such as grading, that would result in soil exposure that could potentially result in soil erosion or loss of topsoil. Additionally, during a storm event, soil erosion could occur at an accelerated rate. As discussed in Section 3.9, Hydrology and Water Quality, construction of the Proposed Project would be required to comply with the Construction General Permit, either through a waiver or through preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). Best Management Practices (BMPs) included in the SWPPP would minimize soil erosion during construction. The Proposed Project's grading plan would also ensure that the proposed earthwork and storm water structures are designed to avoid soil erosion. Impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(c) **Less than Significant Impact with Mitigation Incorporated.** Strong ground shaking can cause settlement, lateral spreading, or subsidence by allowing sediment particles to become more tightly packed, thereby reducing pore space. According to the *Geotechnical Investigation Report,* the project site is underlain by firm to very stiff, sandy clay and medium dense to dense, silty and clayey sand, and silty sand with gravel ranging from approximately 6 to 25 feet in thickness. A thin layer of alluvium comprised of soft, silty clay overlies the marine terrace deposits. As discussed above, the potential for a landslide, lateral spreading, liquefaction, or collapse at the project site is very low (G.A. Nicoll 2014). Furthermore, the soft/loose existing fill would be removed below the proposed buildings and compacted. Although the risk of settlement, lateral spreading, or subsidence on the project site is low, measures included in the *Geotechnical Investigation Report* would serve to further reduce any potential settlement, lateral spreading, or subsidence impacts by incorporating building construction and design standards that would mitigate the impact of any strong ground shaking experienced on the project site. Incorporation of Mitigation Measure GEO-1 would reduce impacts from unstable soils to a less than significant level.

Mitigation Measure: Refer to Mitigation Measure GEO-1 above.

(d) **Less than Significant Impact with Mitigation Incorporated.** Expansive soils contain types of clay minerals that occupy considerably more volume when they are wet or hydrated than when they are dry or dehydrated. Volume changes associated with changes in the moisture content of near-surface expansive soils can cause uplift or heave of the ground when they become wet or, less commonly, cause settlement when they dry out. The project site contains approximately 6 to 25 feet of fill that covers mostly Pleistocene-age terrace deposits. Fill material consists predominantly of thick layers of firm to very stiff, moist to saturated sandy clay, and medium dense to dense, moist to saturated silty and clayey sand (G.A. Nicoll 2014). These soils are considered to have a medium expansion potential (G.A. Nicoll 2014). Although the risk of soil expansion on the project site is low, measures included in the *Geotechnical Investigation Report* would serve to further reduce any potential soil expansion by incorporating building construction and design standards that would mitigate the impact of any soil expansion experienced on the project site. Incorporation of Mitigation Measure GEO-1 would reduce impacts to a less than significant level.

Mitigation Measure: Refer to Mitigation Measure GEO-1 above.

(e) **No Impact.** The Proposed Project does not include the construction of, or connections to a septic system or alternative waste water disposal system. Therefore, the Proposed Project would not result in impacts related to the soil's capability to adequately support the use of septic tanks or alternative wastewater disposal systems, and no impacts would occur.

Mitigation Measures: No mitigation would be required.

3.7 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.7.1 Technical Background

Global climate change (GCC) is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other significant changes in climate (such as precipitation or wind) that last for an extended period of time. The term "global climate change" is often used interchangeably with the term "global warming," but "global climate change" is preferred to "global warming" because it helps convey that there are other changes in addition to rising temperatures.

The prevailing scientific opinion on climate change is that "most of the warming observed over the last 50 years is attributable to human activities (Intergovernmental Panel on Climate Change [IPCC])." Increased amounts of carbon dioxide (CO_2) and other greenhouse gases (GHGs) are the primary causes of the human-induced component of warming. The observed warming effect associated with the presence of GHGs in the atmosphere (from either natural or human sources) is often referred to as the greenhouse effect.[1]

GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced GCC include the following:[2]

a) CO_2
b) Methane (CH_4)
c) Nitrous oxide (N_2O)
d) Hydrofluorocarbons (HFCs)
e) Perfluorocarbons (PFCs)
f) Sulfur hexafluoride (SF_6)

1 The temperature on Earth is regulated by a system commonly known as the "greenhouse effect." Just as the glass in a greenhouse allows heat from sunlight in and reduces the amount of heat that escapes, greenhouse gases like carbon dioxide, methane, and nitrous oxide in the atmosphere keep the Earth at a relatively even temperature. Without the greenhouse effect, the Earth would be a frozen globe; thus, although an excess of greenhouse gas results in global warming, the *naturally occurring* greenhouse effect is necessary to keep our planet at a comfortable temperature.

2 The greenhouse gases listed are consistent with the definition in Assembly Bill (AB) 32 (Government Code 38505), as discussed later in this section.

In June 2005, Governor Schwarzenegger established California's GHG emissions reduction targets in Executive Order (EO) S-3-05. The EO established the following goals for the State of California: GHG emissions were to be reduced to 2000 levels by 2010; GHG emissions should be reduced to 1990 levels by 2020; and GHG emissions should be reduced to 80 percent below 1990 levels by 2050.

California's major initiative for reducing GHG emissions is outlined in Assembly Bill (AB) 32, the "Global Warming Solutions Act," passed by the California State legislature on August 31, 2006. AB 32 requires the California Air Resources Board (ARB) to:

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions, by January 1, 2008;
- Adopt mandatory reporting rules for significant sources of GHG emissions by January 1, 2008;
- Adopt an emissions reduction plan by January 1, 2009, indicating how emissions reductions would be achieved via regulations, market mechanisms, and other actions; and
- Adopt regulations to achieve the maximum technologically feasible and cost-effective reduction of GHGs by January 1, 2011.

To assist public agencies in the mitigation of GHG emissions or analyzing the effects of GHGs under the California Environmental Quality Act (CEQA), including the effects associated with transportation and energy consumption, Senate Bill (SB) 97 (Chapter 185, 2007) required the Governor's Office of Planning and Research (OPR) to develop CEQA guidelines on how to minimize and mitigate a project's GHG emissions. The OPR was required to prepare, develop, and transmit these guidelines on or before July 1, 2009, and the Resources Agency was required to certify and adopt them by January 1, 2010. On January 8, 2009, the OPR released preliminary draft CEQA guideline amendments. The Natural Resources Agency adopted the CEQA Guidelines Amendments and transmitted them to the Office of Administrative Law (OAL) on December 31, 2009. On February 16, 2010, the OAL approved the Amendments and filed them with the Secretary of State for inclusion in the California Code of Regulations (CCR). The Amendments became effective on March 18, 2010. The Amendments encourage Lead Agencies to consider many factors in conducting a CEQA analysis, but preserve the discretion granted by CEQA to Lead Agencies in making their determinations.

State CEQA Guidelines Section 15064.4 states:

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in Section 15064. A lead agency should make a good-faith effort, based on available information, to describe, calculate, or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; or

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency may consider the following when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting.

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

As such, currently neither the CEQA statutes, OPR guidelines, nor the *State CEQA Guidelines* prescribe specific quantitative thresholds of significance or a particular methodology for performing an impact analysis. As with most environmental topics, significance criteria are left to the judgment and discretion of the lead agency.

The recommended approach for GHG analysis included in the Governor's OPR June 2008 Technical Advisory (TA) is to: (1) identify and quantify GHG emissions, (2) assess the significance of the impact on climate change, and (3) if significant, identify alternatives and/or mitigation measures to reduce the impact below significance (State of California OPR). The June 2008 OPR guidance provides some additional direction regarding planning documents as follows: "CEQA can be a more effective tool for GHG emissions analysis and mitigation if it is supported and supplemented by sound development policies and practices that would reduce GHG emissions on a broad planning scale and that can provide the basis for a programmatic approach to project-specific CEQA analysis and mitigation. For local government lead agencies, adoption of general plan policies and certification of general plan EIRs that analyze broad jurisdiction-wide impacts of GHG emissions can be part of an effective strategy for addressing cumulative impacts and for streamlining later project-specific CEQA reviews."

SB 375, signed into law on October 1, 2008, is intended to enhance the ARB's ability to reach AB 32 goals by directing the ARB to develop regional GHG emissions reduction targets to be achieved within the automobile and light truck sectors for 2020 and 2035. On December 5, 2008, the South Coast Air Quality Management District (SCAQMD) adopted an interim quantitative GHG

Significance Threshold for industrial projects where the SCAQMD is the lead agency of 10,000 metric tons (MT) of CO_2 equivalent/year (CO_2e/yr). The SCAQMD has not adopted any other GHG Significance Thresholds; however, it has proposed a screening level threshold of 3,000 MT of CO_2eq/yr for residential and commercial sector projects. Therefore, this analysis uses compliance with the 3,000 MT CO_2e annual screening level as a threshold in determining if the Proposed Project's contribution of GHGs is a considerable contribution to global warming impacts.

For the purpose of this technical analysis, the concept of CO_2e is used to describe how much global warming a given type and amount of GHG may cause, using the functionally equivalent amount or concentration of CO_2 as the reference. Individual GHGs have varying global warming potentials and atmospheric lifetimes. The CO_2e is a consistent methodology for comparing GHG emissions since it normalizes various GHG to the same metric. The reference gas is CO_2, which has a global warming potential equal to 1.

The equation below provides the basic calculation required to determine CO_2e from the total mass of a given GHG using the global warming potentials published by the IPCC.

Tonnes (Metric Tons) of CO_2e = Tonnes (Metric Tons) of GHG x GWP

Where: CO_2e = carbon dioxide equivalent
GHG = greenhouse gas
GWP = global warming potential

This method would be used to evaluate GHG emissions during construction and operation of the Proposed Project. For this analysis only, CO_2, CH_4, and N_2O are considered. This is due to the relatively large contribution of these gases in comparison to other GHGs expected to be produced during the project construction and operation phases. An individual project cannot generate enough GHG emissions to significantly influence climate change, but individual projects can incrementally contribute toward the potential for the cumulative emissions driving GCC. This analysis analyzes whether the project's contribution to the impact is "cumulatively considerable."

The Proposed Project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste, water, and construction equipment. The CalEEMod Version 2013.2.2 was used to calculate the GHG emissions from the Proposed Project. CalEEMod stands for "California Emissions Estimator Model," and is an air quality modeling program that estimates air pollution emissions in pounds per day (lbs/day) or tons per year (tpy) for various land uses, area sources, construction projects, and project operations. CalEEMod estimates a project's CO_2, N_2O, and CH_4 emissions from area and mobile sources, energy and water consumption, and waste generation. Mitigation measures can also be specified to analyze the effects of mitigation on project emissions.

3.7.2 Impact Analysis

(a) **Less Than Significant Impact.** Construction GHG emissions associated with the Proposed Project would include those emissions generated during development of the project site with the proposed Ganahl Lumber retail store and lumber storage yard. Operation emissions include those project-related GHG emissions associated with the operation of the proposed Ganahl Lumber retail store and lumber storage yard. The generation of new GHG emissions associated with development on the project site would occur from energy consumption (and associated GHG

emissions generation) occurring during the project's operation. Typically, more than 80 percent of total energy consumption takes place during the use of buildings, and less than 20 percent is consumed during construction (United Nations Environment Programme 2007).

Overall, the following activities associated with the Proposed Project could directly or indirectly contribute to the generation of GHG emissions:

1. **Construction Activities:** During construction of the project, GHGs would be emitted through the operation of construction equipment and from worker and builder supply vendor vehicles, each of which typically uses fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO_2, CH_4, and N_2O.
2. **Gas, Electricity, and Water Use:** Natural gas use results in the emissions of two GHGs: CH_4 (the major component of natural gas) and CO_2 (from the combustion of natural gas). Electricity use can result in GHG production if the electricity is generated by combusting fossil fuel. California's water conveyance system is energy-intensive. Approximately one-fifth of the electricity and one-third of the nonpowerplant natural gas consumed in California are associated with water delivery, treatment, and use (ARB 2010).
3. **Solid Waste Disposal:** Solid waste generated by the Proposed Project could contribute to GHG emissions in a variety of ways. Landfilling and other methods of disposal use energy for transporting and managing the waste, and they produce additional GHGs to varying degrees. Landfilling, the most common waste management practice, results in the release of CH_4 from the anaerobic decomposition of organic materials. CH_4 is 25 times more potent a GHG than CO_2. However, landfill CH_4 can also be a source of energy. In addition, many materials in landfills do not decompose fully, and the carbon that remains is sequestered in the landfill and not released into the atmosphere.
4. **Motor Vehicle Use:** Transportation associated with the Proposed Project would result in GHG emissions from fuel combustion in daily automobile and truck trips. CO_2 is the most significant GHG emitted by vehicles, but lesser amounts of CH_4 and N_2O are also emitted in vehicle exhaust.

Construction GHG Emissions. GHG emissions associated with the Proposed Project would occur over the short term from construction, consisting primarily of emissions from equipment exhaust. As discussed below, there would also be long-term regional emissions associated with project-related vehicular trips and stationary source emissions such as natural gas used for heating.

GHG emissions generated from construction of the Proposed Project would predominantly consist of CO_2. In comparison to criteria air pollutants such as ozone (O_3) and particulate matter less than 10 microns in size (PM_{10}), CO_2 emissions persist in the atmosphere for a substantially longer period of time. While emissions of other GHGs such as CH_4 are important with respect to GCC, emission levels of other GHGs are less dependent on the land use and circulation patterns associated with the proposed land use development project than are levels of CO_2.

Construction activities produce combustion emissions from various sources such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from

the site, asphalt paving, and motor vehicles transporting the construction crew. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

Operational GHG Emissions. Long-term operation of the Proposed Project would generate GHG emissions from the proposed Ganahl Lumber retail store and lumber storage yard, area and mobile sources, and indirect emissions from stationary sources associated with energy consumption. The existing emissions are added to the Proposed Project emissions as the combination represents the total project emissions when the project is complete. Mobile-source emissions of GHGs would include project-generated vehicle trips associated with mixed-use on-site facilities and customers/employees/deliveries to the project site. Area-source emissions would be associated with activities such as landscaping and maintenance of proposed land uses, natural gas for heating, and other sources from the existing uses on site. Increases in stationary source emissions would also occur at off-site utility providers as a result of demand for electricity, natural gas, and water by the proposed uses.

Table 3.7.A provides the estimated GHG emissions for the Proposed Project.

Table 3.7.A Project Related GHG Emissions

Category	Greenhouse Gas Emissions (Metric Tons/Year)					
	Bio-CO_2	NonBio-CO_2	CO_2	CH_4	N_2O	CO_2e
Area Sources	0.00	0.00	0.00	0.00	0.00	0.00
Energy Usage	0.00	343.55	343.55	0.02	0.00	344.91
Mobile Sources	0.00	1,684.76	1,684.76	0.07	0.00	1,686.27
Solid Waste	177.96	0.00	177.96	10.52	0.00	398.83
Water and Wastewater	1.86	33.23	35.09	0.19	0.00	40.62
Construction	0.00	14.77	14.77	0.00	0.00	14.82
Total Emissions	179.82	2,076.31	2,256.13	10.80	0.01	**2,485.46**
SCAQMD Draft Screening Threshold						**3,000**
Exceeds Threshold?						**No**

Source: Kunzman (2014a).
Bio-CO_2 =
CH_4 = methane
CO_2 = carbon dioxide
CO2e = carbon dioxide equivalent
N_2O = Nitrous oxide
Non Bio-CO_2

The project's opening year (2016) emissions would be 2,485.46 MT of CO_2e and would not exceed the SCAQMD draft screening threshold of 3,000 MT of CO_2e per year for GHG emissions for all uses (see Table 3.7.A). Impacts are considered less than significant.

Mitigation Measures: No mitigation would be required.

(b) **Less than Significant Impact.** The City of Costa Mesa does not currently have a Climate Action Plan; therefore, GHG emissions have been compared to the ARB Scoping Plan.

Scoping Plan. The ARB Board approved a Climate Change Scoping Plan in December 2008. The Scoping Plan outlines the State's strategy to achieve the 2020 GHG emissions limit. The Scoping Plan "proposes a comprehensive set of actions designed to reduce overall greenhouse gas

emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."

This Scoping Plan calls for an "ambitious but achievable" reduction in California's GHG emissions, cutting approximately 30 percent from business as usual emission levels projected for 2020, or about 10 percent from today's levels. On a per-capita basis, that means reducing annual emissions of 14 tons of carbon dioxide for every man, woman, and child in California down to about 10 tons per person by 2020.

The Proposed Project would include passive energy conservation features as described in Section 2.2.4, Project Characteristics, of this Initial Study to meet applicable strategies of the plan. The Proposed Project is consistent with the applicable strategies resulting in a less than significant impact. The Proposed Project's operational GHG emissions do not exceed the draft SCAQMD threshold for all land uses. Although the Proposed Project would generate GHG emissions, these emissions would not have a significant impact on the environment.

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3.8 HAZARDS AND HAZARDOUS MATERIALS

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?	☐	☒	☐	☐
(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?	☐	☒	☐	☐
(c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
(d)	Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or to the environment?	☐	☐	☐	☒
(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?	☐	☐	☒	☐
(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?	☐	☐	☐	☒
(g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒	☐	☐
(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?	☐	☐	☐	☒

3.8.1 Introduction

A Phase I Environmental Site Assessment (Phase I ESA) (Appendix E) was completed for the Proposed Project by AEI Consultants (AEI Consultants 2014). The purpose of the Phase I ESA was to identify the presence of any hazardous substances or petroleum products on the project site that may indicate an existing release, a past release, or a material threat of a release of any hazardous substance or petroleum product into the soil, groundwater, or surface water of the project site. The Phase I ESA results are summarized below.

3.8.2 Environmental Setting

The project site currently contains a concrete wall, an asphalt paved entrance area, landscaping along the Bristol Street frontage, and an underground concrete lined flood channel (Santa Ana Delhi Channel).

Previous land uses of the project site were determined using historical aerial photographs, historic city directories, Sanborn fire insurance maps, and agency records. From at least 1927 through 1947, the project site appeared to be undeveloped, contained agricultural land uses, and had a drainage ditch running through it. From 1952 to 1993, the project site appeared to be vacant land, had a drainage ditch running through it, and contained soil stockpiles. From 1994 through 2008, the project site was

developed with Bristol Street Mini Storage and Recreational Vehicle (RV) Storage. The project site has been vacant since 2009 (AEI Consultants 2014).

The Phase I ESA identified two environmental issues within the project site that were not expected to represent a significant environmental concern. Environmental issues associated with the project site are described below:

- Based on a review of aerial photographs, there is a potential that portions of the project site were historically used for agricultural purposes. There is a potential that agricultural chemicals, such as pesticides, herbicides and fertilizers, were used on site, and that the project site has been affected by the use of such agricultural chemicals. In general, historical agricultural use is not the subject of environmental enforcement actions by regulatory agencies, and therefore, could be considered a *de minimis* condition. As described above, the project site was previously developed with an RV and self-storage facility from 1994 until 2008. Development of this facility likely involved grading activities that would have likely removed or disturbed near surface soils. When this RV and self-storage facility was demolished, additional grading/earthmoving activities likely occurred that would have further reduced the potential for residual agricultural contaminants (AEI Consultants 2014).
- The underground Santa Ana Delhi Channel was observed bisecting the project site. No hazardous materials or petroleum products were observed stored on the project site, or near the Santa Ana Delhi Channel traversing the project site. Therefore, these areas are not expected to represent a significant environmental concern (AEI Consultants 2014).

No recognized environmental conditions (RECs), controlled recognized environmental conditions (CRECs), or historical recognized environmental conditions (HRECs) were found to affect the project site (AEI Consultants 2014).

Although not considered a REC, there is the potential to encounter aerially-deposited lead (ADL) in shallow soil within 50 feet of Bristol Street. Based on the fact that the site has been unpaved until 1994 and its location adjacent to a major road and freeways, there is the potential for ADL in shallow soil along this roadway.

According to the Phase I ESA and records maintained by the Orange County Solid Waste Local Enforcement Agency (LEA), a closed solid waste disposal site, Newport Avenue Station No. 1 (Solid Waste Disposal System Number 30 CR-0071), is located approximately 700 feet northwest of the project site at the northwest corner of Newport Boulevard and Bristol Street. This closed disposal site is inspected by the LEA on a quarterly basis. Although no combustible gas studies or monitoring reports were on file in the CalRecycle Solid Waste Information System (SWIS) for the Newport Avenue Station No. 1 closed disposal site, LEA has indicated that methane gas generated by decomposing refuse buried at the closed disposal site could possibly migrate toward the project site.

3.8.3 Impact Analysis

(a) **Less Than Significant Impact with Mitigation Incorporated.** Hazardous materials are chemicals that could potentially cause harm during an accidental release or mishap, and are defined as being toxic, corrosive, flammable, reactive, an irritant, or strong sensitizer. Hazardous substances include all chemicals regulated under the United States Department of Transportation

"hazardous materials" regulations and the United States Environmental Protection Agency (EPA) "hazardous waste" regulations. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. The probable frequency and severity of consequences from the use, transport, or disposal of hazardous materials is affected by the type of substance, quantity used or managed, and the nature of the activities and operations.

Construction. During construction activities for the Proposed Project, there is a possibility of generating small quantities of hazardous materials. Construction activities would also use a limited amount of hazardous and flammable substances/oils during heavy equipment operations for site grading and construction. The amount of hazardous chemicals present during construction is limited and would be in compliance with existing government regulations to ensure the amounts of these materials present during construction would be limited and would not pose a significant adverse impact to workers or the environment. Furthermore, the construction contractor would be required to implement standard best management practices regarding hazardous materials storage, handling, and disposal during construction in compliance with the State Construction General Permit to protect water quality (refer to Section 3.9, Hydrology and Water Quality). Any associated risk would be adequately reduced to a level that is less than significant through compliance with these standards and regulations; thus, the limited use and storage of hazardous materials during construction of the Proposed Project would not pose a significant hazard to the public or the environment. Accordingly, the potential for the release of hazardous materials during project construction would be low and, even if a release would occur, it would not result in a significant hazard to the public, surrounding land uses, or environment due to the small quantities of these materials associated with construction, and no mitigation would be required.

The *Phase I ESA* did not identify any properties adjacent to the project site that were anticipated to have adversely impacted conditions at the project site. However, in the unlikely event that unknown hazardous materials are discovered during construction activities, the project contractor would be required to comply with a Contingency Plan developed and approved prior to the commencement of grading activities. As stated in Mitigation Measure HAZ-1, in the event that construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the Contingency Plan requires the contractor to stop work, cordon off the affected area, and notify the Costa Mesa Fire Department (CMFD). The CMFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations. In addition, the California Department of Transportation, the California Highway Patrol, and local police and fire departments are trained in emergency response procedures for safely responding to accidental spills of hazardous substances on public roads, further reducing potential impacts to a less than significant level. With implementation of Mitigation Measure HAZ-1, potential risks associated with encountering unknown hazardous wastes during construction would be reduced to a less than significant level.

With implementation of Mitigation Measure HAZ-1, construction of the Proposed Project would not create a significant hazard to the public or to the environment through the routine transport, use, or disposal of hazardous materials.

Operation. Long-term operational activities typical of the proposed retail and lumber storage yard uses, such as landscape and building maintenance, would occur on the project site. Maintenance activities related to landscaping include the use of fertilizers and light equipment (such as lawn mowers and edgers). These types of activities do not involve the use of a large or substantial amount of hazardous materials. The proposed retail and lumber storage yard uses would involve the use and storage of small quantities of potentially hazardous materials in the form of cleaning solvents and pesticides. However, such materials would be contained, stored, and used in accordance with manufacturers' instructions and handled in compliance with applicable standards and regulations. During operation of the Proposed Project, the diesel fueling station would be enclosed within integrated containment vessels, and would be required to be operated in compliance with all applicable State and federal regulations governing the handling of diesel fuels. In addition, the station would meet all best management practice (BMPs) and City code requirements, including a roof shed above the fueling area. The existing Ganahl Lumber facility has a similar fueling station on the existing site located directly above the Delhi Channel. .Any associated risk would be adequately reduced to a less than significant level through compliance with these standards and regulations.The Proposed Project would relocate the existing Ganahl Lumber store located adjacent to the project site; therefore, operational impacts would be the same as the existing conditions for the existing Ganahl Lumber store next door. Thus, potential impacts from the routine transport, use, or disposal of hazardous materials resulting from operation of the Proposed Project would be less than significant, and no mitigation would be required.

As indicated by the LEA, it is possible that methane gas from the nearby closed disposal site may be migrating toward the project site and could concentrate beneath the Proposed Project's structures resulting in health and safety hazards. Mitigation Measure HAZ-2 would address these potential hazards by requiring that a soil gas investigation be conducted on the project site prior to the issuance of grading permits to evaluate whether combustible landfill gas concerns exist and, if necessary, that appropriate building design measures be incorporated into the Proposed Project to protect against the accumulation of methane beneath structures. With implementation of Mitigation Measure HAZ-2, operation-related impacts would be reduced to a less than significant level.

Mitigation Measures:

HAZ-1: **Contingency Plan.** Prior to commencement of grading activities, the Director of the Orange County Environmental Health Division, or designee, shall review and approve a contingency plan that addresses the procedures to be followed should on-site unknown hazards or hazardous substances be encountered during demolition and construction activities. The plan shall indicate that if construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the contractor shall stop work, cordon off the affected area, and notify the Costa Mesa Fire Department (CMFD). The CMFD responder shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations.

HAZ-2: **Protection Against Landfill Gas Hazards.** Prior to the issuance of any grading permits, the Applicant shall conduct a soil gas investigation on the project site in accordance with the Orange County Fire Authority's Combustible Gas Hazard Mitigation Guidance to evaluate whether combustible landfill gas concerns exist on the project site. If the investigation concludes that such concerns do not exist, no further mitigation is necessary. If the investigation concludes that combustible landfill gases are present beneath the project site, the Applicant shall coordinate with the Orange County Solid Waste Local Enforcement Agency (LEA) to determine appropriate mitigation to protect the Proposed Project's structures from combustible landfill gases, which may include the installation of systems designed to protect against the accumulation of methane beneath structures, which may include passive ventilation systems, flexible building membrane liners, landfill gas alarms, or other measures listed per Section 20939, Title 27 California Code of Regulations in accordance with LEA recommendations. If mitigation is required, the City of Costa Mesa's Building Official, or designee, shall review the building and grading plans prior to the start of grading to verify that the mitigation developed as a result of the combustible landfill gas evaluation has been appropriately incorporated into the project plans. On-site inspection during grading and construction shall be conducted by the City of Costa Mesa's Building Official, or designee, to ensure compliance with the mitigation specifications, if any are required to be incorporated into project plans.

(b) **Less than Significant Impact with Mitigation Incorporated.** During construction, some hazardous materials, such as diesel fuel, would be used. A Storm Water Pollution Prevention Plan (SWPPP), listing Best Management Practices (BMPs) to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Proposed Project (refer to Standard Condition WQ-1 in Section 3.9, Hydrology and Water Quality). The release of any spills would be prevented through the implementation of BMPs listed in the SWPPP. In addition, Mitigation Measure HAZ-1, which outlines the requirements for a contingency plan, would reduce impacts related to the possible discovery of unknown wastes or suspect materials during construction activities to a less than significant level. The Proposed Project would relocate the existing Ganahl Lumber store next door to the project site. Operation of the Proposed Project would result in similar hazard conditions as the existing hazard conditions associated with the current Ganahl Lumber store. Daily operation of the new lumber store would not result in a new hazard to the public or the environment. During operation of the Proposed Project, the diesel fueling station would be enclosed within integrated containment vessels, and would be required to be operated in compliance with all applicable State and federal regulations governing the handling of diesel fuels. In addition, the diesel fueling station would meet all best management practice (BMPs) and City code requirements, including a roof shed above the fueling area. The existing Ganahl Lumber facility has a similar fueling station on the existing site located directly above the Delhi Channel. Further, the WQMP contains BMPs to prevent the release of fuel into the environment (refer to Standard Condition WQ-2 in Section 3.9, Hydrology and Water Quality). Therefore, with adherence to Standard Condition WQ-2, the Proposed Project would result in a less than significant impact during operation.

Mitigation Measures: Refer to Mitigation Measure HAZ-1 above.

Standard Conditions: Refer to Standard Conditions WQ-1 and WQ-2 in Section 3.9, Hydrology and Water Quality.

(c) **Less than Significant Impact.** There are no schools within one-quarter mile of the project site. However, there are ten schools within a one-mile vicinity of the project site: Mariners Christian School, Sonora Elementary School, Pacific Coast High School/Community Home Education Program (CHEP), Vineyard Christian School, Montessori Christian School, Back Bay Montessori, Saint John the Baptist Catholic School, Access County Community School, Costa Mesa High School, and Davis Magnet School. Impacts would be less than significant.

(d) **No Impact.** The Phase I ESA included a search of the Regional Water Quality Control Board's (RWQCB) online GeoTracker database, which resulted in no information indicating any recorded release of hazardous materials on the project site. A search of the Department of Toxic Substances Control's (DTSC) Hazardous Waste Tracking System (HWTS) database resulted in one record indicating that the project site generated 0.8000 ton of methyl ethyl ketone. The project site was not listed in the regulatory database as a Resource Conservation and Recovery Act (RCRA) generator, and as such, it is presumed that the wastes generated would have been in quantities which did not trigger RCRA reporting requirements. Therefore, the recorded wastes are not expected to represent a significant environmental concern (AEI Consultants 2014).

The project site was identified in the regulatory database as a Clandestine Drug Labs (CDL) site and a Facility and Manifest Data (HAZNET) site. AEI interviewed Mr. Adam Palmer of the DTSC Emergency Response Program for more information regarding the database CDL Listing. According to Mr. Palmer, the DTSC was called on January 7, 1998 to remove drug lab equipment from a storage container related to the previous storage use of the project site. The items were removed from the site and the case was both opened and closed on January 7, 1998. No release case was listed. Due to the items being removed and the demolition of the former storage facility structures this listing is not likely to represent a significant environmental concern (AEI Consultants 2014). No significant hazard to the public or the environment is expected from implementation of the Proposed Project. A less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(e) **Less than Significant Impact.** The project site is located approximately 0.5 miles west of John Wayne Airport, and is within the land use planning area managed by the Airport Environs Land Use Plan for John Wayne Airport (AELUP) (ALUC 2008). The project site is located within the 60 decibels (dB) Community Noise Equivalent Level (CNEL) contour (ALUC 2008). Commercial land uses exposed to noise levels of 60 dB CNEL are considered "Normally Consistent" (conventional construction methods used, no special noise reduction requirements) by the AELUP (ALUC 2008). The project site is located within Safety Compatibility Zone 6 (Traffic Pattern Zone) for runway 1L and 19R (ALUC 2008). Zone 6 has the following basic compatibility qualities:

- Allow residential land uses;

- Allows most nonresidential uses (prohibits outdoor stadiums and similar uses with very high intensities; and
- Avoid children's schools, large day care centers, hospitals, and nursing homes (ALUC 2008).

The Proposed Project would not result in a safety hazard for people residing or working in the vicinity of the project site because it would relocate the existing Ganahl Lumber store from the parcel adjacent to the project site. No new or incompatibility conflicts would result because similar commercial land uses already exist in the area. Impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(f) **No Impact.** There are no private airstrips within the vicinity of the project site, and as a result, the Proposed Project would not result in a safety hazard for people residing or working in the vicinity of the project site. Therefore, no impact would occur.

Mitigation Measures: No mitigation would be required.

(g) **Less than Significant Impact with Mitigation Incorporated.** The City of Costa Mesa has an Emergency Operations Plan that identifies the City's planning, organization, and response policies and procedures during an emergency (City of Costa Mesa 2013). Construction of the Proposed Project would require construction to occur within Bristol Street and would result in temporary construction truck traffic which has the potential to interfere with emergency response access to areas near the project site. With implementation of Mitigation Measure HAZ-3, which requires that the Applicant prepare a construction staging and traffic control plan that would ensure that emergency vehicles would be able to navigate through streets adjacent to the project site, impacts to emergency access would be less than significant.

Construction. Construction may result in increased travel time due to flagging or stopping of traffic to accommodate trucks entering and exiting the project site. While it is unlikely that such activities would result in complete closure of Bristol Street, they may temporarily close a single travel lane. The development of a Construction Staging and Traffic Control Plan, as required by Mitigation Measure HAZ-3, would ensure that emergency vehicles would be able to navigate through streets adjacent to the project site. Traffic management personnel (flagpersons) required as part of the Congestion Staging and Traffic Management Plan would be trained to assist in emergency response by restricting or controlling the movement of traffic that could interfere with emergency vehicle access. With implementation of the Construction Staging and Traffic Control Plan, it is not anticipated that construction of the Proposed Project would impede any passing emergency vehicles or impair any emergency evacuation plans. Therefore, impacts to emergency response and evacuation plans associated with construction of the Proposed Project would be reduced to a less than significant level with implementation of Mitigation Measure HAZ-3.

Operation. Operation of the Proposed Project would not physically interfere with an adopted emergency response plan or emergency evacuation plan. The Proposed Project would be developed in accordance with the City Emergency Operations Plan. Access to, from, and on site for emergency vehicles would be reviewed and approved by the Costa Mesa Fire Department (CMFD) prior to project construction. The Proposed Project would also be required to comply with all applicable codes and ordinances for emergency vehicle access, which would ensure

adequate access to, from, and on site for emergency vehicles. Therefore, operation of the Proposed Project would not impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan. Potential project impacts would be less than significant, and no mitigation would be required.

Mitigation Measures:

HAZ-3: **Construction Staging and Traffic Control Plan.** Prior to the issuance of any grading permits, the Applicant (or its contractor) shall prepare a Construction Staging and Traffic Control Plan for approval by the City of Costa Mesa (City) Transportation Services Manager, or designee, to ensure proper access to residences and businesses in the area by emergency vehicles during construction and to maintain traffic flow prior to any lane closures.

The Construction Staging and Traffic Control Plan shall also include the name and phone number of a contact person who can be reached 24 hours a day regarding construction traffic complaints or emergency situations. In addition, the Construction Staging and Traffic Control Plan shall take into account and be coordinated with other Construction Staging and Traffic Control Plans that are in effect or have been proposed for other projects in the City of Costa Mesa. The Construction Staging and Traffic Control Plan shall include, but not be limited to, the following:

- All emergency access to the project site and adjacent areas shall be kept clear and unobstructed during all phases of construction. Flag persons shall be provided in adequate numbers to minimize impacts to traffic flow and to ensure safe access into and out of the site.
- Flag persons shall be trained to assist in emergency response by restricting or controlling traffic movements that could interfere with emergency vehicle access.
- Construction vehicles, including construction personnel vehicles shall not park on public streets.
- Construction vehicles shall not stage or queue where they would interfere with pedestrian and vehicular traffic or block access to nearby businesses or residential areas.
- If feasible, any traffic lane closures would be limited to off-peak traffic periods, as approved by the City Transportation Services Department.

(h) **No Impact.** The Proposed Project is located in a developed area of the City of Costa Mesa, and is bounded by commercial, residential, and transportation uses. There are no wildlands in the vicinity, and therefore, the Proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires. No impact would occur.

Mitigation Measures: No mitigation would be required.

3.9 HYDROLOGY AND WATER QUALITY

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Violate any water quality standards or waste discharge requirements?	☐	☐	☒	☐
(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)?	☐	☐	☒	☐
(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?	☐	☐	☒	☐
(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?	☐	☐	☒	☐
(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?	☐	☐	☒	☐
(f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐
(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?	☐	☐	☐	☒
(h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☒	☐
(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?	☐	☐	☐	☒
(j)	Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☒
(k)	Potentially impact storm water runoff from construction activities?	☐	☐	☒	☐
(l)	Potentially impact storm water runoff from post-construction activities?	☐	☐	☒	☐
(m)	Result in a potential for discharge of storm water pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?	☐	☐	☒	☐
(n)	Result in potential for discharge of storm water to affect the beneficial uses of the receiving waters?	☐	☐	☒	☐
(o)	Create the potential for significant changes in the flow velocity or volume of storm water runoff to cause environmental harm?	☐	☐	☒	☐
(p)	Create significant increases in erosion of the project site or surrounding areas?	☐	☐	☒	☐

3.9.1 Impact Analysis

(a) **Less than Significant Impact.** During construction of the Proposed Project, water quality impacts could occur without proper controls. Soils loosened during grading, spills of fluids or fuels from vehicles and equipment or miscellaneous construction materials and debris, if mobilized and transported offsite in overland flow, could degrade water quality. Therefore, the Proposed Project would be required to comply with all pertinent requirements of the National Pollutant Discharge Elimination System (NPDES). The first requirement involves compliance with the State Water Resources Control Board's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002) (Construction General Permit) (Standard Condition WQ-1). Because the Proposed Project would disturb greater than 1 acre of soil during construction, the project must comply with the requirements of the Construction General Permit, including the preparation of a Storm Water Pollution Prevention Plan (SWPPP) and implementation of the construction Best Management Practices (BMPs) detailed in the SWPPP during construction activities. Construction BMPs would include, but not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site and Good Housekeeping BMPs to prevent spills, leaks, and discharge of construction debris and waste into receiving waters. To comply with the requirements of the Construction General Permit, the Applicant must ensure that the Permit Registration Document, including a SWPPP and Notice of Intent, are filed with the State Water Resources Control Board prior to issuance of a grading permit.

In addition, a Preliminary Water Quality Management Plan (WQMP) (see Appendix F) has been prepared for the Proposed Project to comply with the requirements of the local NPDES Stormwater Program (Joseph C. Truxaw and Associates, Inc. 2014b). As described in Standard Condition WQ-2, a Final WQMP that includes design features and BMPs to target pollutants of concern in stormwater runoff from the project site will be prepared and approved prior to issuance of a grading permit. Proposed BMPs include rainwater capture and storage, planter boxes, and bioswales. During operation, expected pollutants associated with the commercial and industrial uses on the project site include suspended solids/sediments, nutrients, pathogens (bacteria/virus), pesticides, oil and grease, and trash. The project site was previously fully developed with a storage facility with approximately 13 percent pervious surfaces and 87 percent impervious surfaces. Post- project conditions would result in 7.5 percent pervious surfaces and 92.5 percent impervious surfaces (Joseph C. Truxaw and Associates, Inc. 2014b).With adherence to the aforementioned requirements, outlined below as Standard Conditions WQ-1 and WQ-2, potential impacts related to waste discharge requirements would be less than significant.

Standard Conditions:

WQ-1 **Construction General Permit.** Prior to issuance of a grading permit, the Applicant shall demonstrate to the City of Costa Mesa (City) Public Works Department that coverage has been obtained under California's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing. A copy of the current Storm Water

Pollution Prevention Program (SWPPP) required by the General Permit shall be kept at the project site and be available for review by City representatives upon request.

WQ-2 **Final Water Quality Management Plan.** Prior to issuance of a grading permit, the Applicant shall submit a Final Water Quality Management Plan (WQMP) to the City Public Works Department for review and approval. Both Source Control best management practices (BMPs) and Site Design BMPs designed to reduce impacts to water quality from operation of the Proposed Project shall be identified in the Final WQMP.

Mitigation Measures: No mitigation would be required.

(b) **Less than Significant Impact**. The project site is currently vacant, and contains a mixture of impervious and pervious surfaces. As described above, the Proposed Project would result in an increase in the amount of impervious surfaces on the project site. Even though the pervious surfaces of the project site would allow groundwater recharge during storm events it would not allow groundwater recharge to occur at rates that would significantly affect groundwater levels due to its size. Operation of the Proposed Project would not require groundwater extraction. Furthermore, the project site is not located in a designated recharge area. According to the *Geotechnical Investigation Report* prepared for the Proposed Project, groundwater was encountered in several borings and stabilized at depths ranging from 23.5 to 244.5 feet below the existing ground surface (bgs) and 10.7 to 12 feet above mean sea level (amsl) (G.A. Nicoll and Associates 2014). Based on the depth of excavation required for the Proposed Project, it is not anticipated that groundwater would be encountered during construction; therefore, groundwater dewatering would not be required.

The Proposed Project would have additional water needs resulting from the operation of a store of a larger size and other new operational needs including the cleaning of solar panels compared to the existing Ganahl Lumber Costa Mesa store. However, the Proposed Project would incorporate various water capture and conservation measures that would reduce water requirements and offset any reduction in infiltration that results from the increase in impervious surface area on the project site. For example, the Proposed Project would be designed to capture rain water from the roof system and store it in five aboveground cisterns for later use in landscape areas. The cisterns could store approximately 100,000 gallons of rainwater. The landscaping plan also includes the use of permeable pavers and bioswales to allow for groundwater recharge and native and drought tolerant plants that thrive in extended periods of drought with seasonal floods. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(c) **Less than Significant Impact.** The Proposed Project would require grading of the project site, which would affect the drainage patterns of the site and expose soil that could result in an increased potential for soil erosion and siltation compared to existing conditions. Additionally, during a storm event, soil erosion and siltation could occur at an accelerated rate. As discussed above in the response to question 3.9 (a) above and specified in Standard Condition WQ-1, the Construction General Permit requires preparation of a SWPPP to identify Construction BMPs to be implemented as part of the Proposed Project to reduce impacts to water quality during

construction, including those impacts associated with soil erosion and siltation. In addition, the Proposed Project's drainage plan would be designed by a registered civil engineer to safely retain, detain, and/or convey stormwater runoff. Drainage patterns would remain similar to existing conditions. No streams or rivers would be altered; the Santa Ana Delhi Channel would not be affected by the Proposed Project. Implementation of BMPs would minimize the potential erosion or siltation from the project site. A less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(d) **Less than Significant Impact**. Please see the response to question 3.9. (c) above. As a result of the increase in impervious surface area on the project site, the Proposed Project is anticipated to increase the peak flow of runoff during storm events. However, the Proposed Project includes infiltration BMPs to offset any increase in stormwater runoff that would result from the increase in impervious surface area on the project site. With implementation of infiltration BMPs as part of the project design, impacts related to the alteration of the existing drainage pattern in a manner that would result in on- or off-site flooding would be less than significant.

Mitigation Measures: No mitigation would be required.

(e) **Less than Significant Impact.** The landscaping plan includes the use of permeable pavers to allow water infiltration on site and bioswale features to help treat stormwater runoff. Stormwater that is not retained on site would be directed to the existing Santa Ana Delhi Channel and Bristol Street, and would be accepted by the existing public storm drain system. Calculations of pre-development and post development runoff from the project site show that the Proposed Project would result in an approximately 13.8 percent decrease in runoff from the project site for the 10-year storm frequency, and an approximately 13.6 percent decrease in runoff from the project site for the 25-year and 100-year storm frequencies (Joseph C. Truxaw and Associates, Inc. 2014a). Therefore, impacts to the existing stormwater drainage system would be less than significant.

Mitigation Measures: No mitigation would be required.

(f) **Less than Significant Impact.** Please refer to the response to question 3.9 (a) above. A Preliminary WQMP has been prepared for the Proposed Project to comply with the requirements of the local NPDES Stormwater Program (Joseph C. Truxaw and Associates, Inc. 2014b). The Applicant would implement a SWPPP for the Proposed Project listing BMPs to prevent construction pollutants and products from violating any water quality standards. A less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(g) **No Impact.** The Proposed Project does not include housing. No impact would occur.

Mitigation Measures: No mitigation would be required.

(h) **Less than Significant Impact.** Areas adjacent to Santa Ana Delhi Channel are located within both the 100-year and 500-year flood zone (City of Costa Mesa 2000). The Ganahl Lumber store

would be designed such that flood flows would not be impeded or redirected to create hazards in an area that currently does not have flooding hazards. A less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(i) **No Impact.** Only a small portion of the City of Costa Mesa is located within the dam inundation area of Prado Dam, and that portion is limited to the area closest to Newport Bay. The project site is not located in the Prado Dam inundation area. No impact would occur.

Mitigation Measures: No mitigation would be required.

(j) **No Impact.** The project site and surrounding area are relatively flat; therefore, the Proposed Project would not be built in an area subject to mudflows. The project site is located approximately five miles from the Pacific Ocean. Due to the distance to the ocean, the project site would not be subject to inundation from seiches or tsunamis. No impact would occur. Seiching is a phenomenon that occurs when seismic ground shaking induces standing waves (seiches) inside water retention facilities such as reservoirs and water tanks. Such waves can cause retention structures to fail and flood downstream properties. Because there are no water retention facilities located in close proximity to the project site, the risk associated with possible seiche waves is, therefore, not considered a potential constraint. No impact would occur.

Mitigation Measures: No mitigation would be required.

(k) **Less than Significant Impact.** Please refer to the response to question 3.9 (a) above. During construction of the Proposed Project, water quality impacts could occur without proper controls and compliance with regulations pertaining to the protection of water quality. However, the Proposed Project would be subject to the requirements of the statewide NPDES stormwater permit for construction activity (Standard Condition WQ-1), and implementation of the construction Best Management Practices (BMPs) detailed in the SWPPP during construction activities. To comply with the requirements of the Construction General Permit, the Applicant must ensure that the Permit Registration Document, including a SWPPP and Notice of Intent, are filed with the State Water Resources Control Board prior to issuance of a grading permit. Therefore, a less than significant impact would occur with adherence to Standard Condition WQ-1.

Mitigation Measures: No mitigation would be required.

(l) **Less than Significant Impact.** Please refer to the response to question 3.9 (a) above. During operation, expected pollutants associated with the proposed retail and lumber sales and storage uses on the project site include suspended solids/sediments, nutrients, pathogens (bacteria/virus), pesticides, oil and grease, and trash and debris. A Preliminary WQMP has been prepared for the Proposed Project to comply with the requirements of the local NPDES Stormwater Program (Joseph C. Truxaw and Associates, Inc. 2014b). The Final WQMP will include design features and BMPs to target pollutants of concern in stormwater runoff from the project site (Standard Condition WQ-2). The Proposed Project would include design features that improve water quality. Roof cisterns installed on the roof of the Proposed Project would store approximately 100,000 gallons of rainwater, and thereby reduce stormwater runoff from the project site. The

landscaping plan for the Proposed Project also includes the use of permeable pavers and bioswales to allow for groundwater recharge that would reduce stormwater runoff. With implementation of the measures included in the WQMP and the additional design features associated with the Proposed Project operational water quality impacts as a result of the Proposed Project would be less than significant.

Mitigation Measures: No mitigation would be required.

(m) **Less than Significant Impact.** Please refer to the response to question 3.9 (a) above. Although the Proposed Project would involve operational activities associated with lumber sales and storage, including but not limited to material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), delivery areas, loading docks and other outdoor work areas, the Proposed Project would be expected to comply with the NPDES permit, WQMP, and SWPPP prepared for the Proposed Project. As specified in Standard Condition WQ-2, a variety of BMPs would also be implemented on site to reduce stormwater runoff and increase infiltration. Compliance with these plans and measures would reduce impacts to a less than significant level.

Mitigation Measures: No mitigation would be required.

(n) **Less than Significant Impact.** The Proposed Project is part of the Newport Bay Watershed (Environmental Protection Agency [EPA] 2009), and is located across the street from an open tributary to Upper Newport Bay. Runoff from the project site drains to the existing Santa Ana Delhi Channel beneath the project site and Bristol Street, which both drain to the Newport Bay Watershed. The Newport Bay Watershed eventually drains to the Upper Newport Bay Preserve located approximately one mile from the project site and the Pacific Ocean located approximately five miles from the project site. The Newport Bay Watershed is currently listed as impaired by a variety of pollutants (EPA 2009). Runoff from the project site would not substantially impact the Newport Bay Watershed, Upper Newport Bay Preserve, or the Pacific Ocean given the size and scale of the Proposed Project. In addition, the Proposed Project would be required to conform to the NPDES permit and implement measures from the SWPPP and WQMP, including BMPs. The Proposed Project would not interfere with the beneficial uses of aforementioned bodies of water. Therefore, impacts to water bodies that serve as drainage for the Proposed Project would be less than significant.

Mitigation Measures: No mitigation would be required.

(o) **Less than Significant Impact.** Grading on the project site would affect drainage patterns and expose soil that could result in an increased potential for soil erosion and siltation compared to existing conditions. However, grading on the project site and changes in drainage would not result in a significant change in the flow or velocity of stormwater runoff. The site's drainage plan would be designed by a registered civil engineer to safely retain, detain, and/or convey stormwater runoff. According to the Preliminary Drainage Study prepared for the Proposed Project, drainage patterns on and surrounding the project site would remain similar to existing conditions (Joseph C. Truxaw and Associates, Inc. 2014a). As described in the response to question 3.9 (e) above, the Proposed Project would result in decreases in runoff from the project

site for the 10-year, 25-year, and 100-year storm frequencies. Therefore, a less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(p) **Less than Significant Impact.** Grading on the project site would affect drainage patterns and expose soil that could result in an increased potential for soil erosion and siltation compared to existing conditions. As discussed above in the response to question 3.9 (a) and specified in Standard Condition WQ-1, the Construction General Permit requires preparation of a SWPPP to identify Construction BMPs to be implemented as part of the Proposed Project to reduce impacts to water quality during construction, including those impacts associated with soil erosion and siltation. Through compliance with Standard Condition WQ-1, a less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

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3.10 LAND USE/PLANNING

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Physically divide an established community?	☐	☐	☐	☒
(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?	☐	☐	☒	☐
(c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

3.10.1 Impact Analysis

(a) **No Impact.** The Proposed Project is located in an area zoned for local business uses and has a general commercial land use designation (City of Costa Mesa 2004; City of Costa Mesa 2007). The project site previously served as a self-storage site. The Proposed Project is located directly south of the SR-55 and SR-73 juncture, and would not divide any established communities. Therefore, no impact would occur.

Mitigation Measures: No mitigation would be required.

(b) **Less than Significant Impact.** Land uses on and around the project site are regulated by the City of Costa Mesa's (City's) General Plan and Zoning Ordinance.

General Plan. The Costa Mesa General Plan (2000) is the City's most fundamental planning document. The General Plan establishes a vision for the City's future growth and change and provides a blueprint for development throughout the community. The project site is designated for General Commercial land uses by the City's General Plan. Allowable uses within the General Commercial General Plan land use designation include a combination of junior department stores and retail clothing stores, theaters, restaurants, hotels and motels, automobile sales and service establishments, markets, drug stores, retail shops, financial institutions, service establishments and support office uses. The General Commercial land use designation allows a Floor Area Ratio (FAR) between 0.20-0.75 for high to very low traffic uses, respectively. Because the proposed hardware store and outdoor lumber yard contains both a commercial use (retail store, office mezzanine) and industrial use (material storage structures, mill shed), a 0.35 maximum FAR is applied. The Proposed Project would be subject to a maximum FAR of 0.35 in accordance with General Plan Policy LU-1E.1(a). The FAR calculated for the Proposed Project is 0.346, and therefore, the Proposed Project would comply with the City's FAR requirements. Title 13 of the Costa Mesa Zoning Code allows the exclusion of outdoor, unenclosed storage sheds from the FAR calculation, as well as allowances for the outdoor material storage uses as low traffic generators. In this case, the unenclosed pole shed was not calculated in the FAR ratio. The Proposed Project would not conflict with any applicable land use plans or policies; therefore, no impacts would occur.

Zoning Ordinance. The City's Zoning Ordinance is the primary implementation tool for the City's General Plan Land Use Element and the goals and policies contained therein. For this reason, the Zoning Map must be consistent with the General Plan Land Use Map. The General

Plan Land Use Map indicates the general location and extent of future land use in the City. The Zoning Ordinance, which includes the Zoning Map, contains more detailed information about permitted land uses, building intensities, and required development standards.

The Zoning Ordinance designation for the project site is C1 (Local Business). The C1 zoning designation allows a FAR between 0.20-0.75 for high to very low traffic uses, respectively. As indicated previously, the Proposed Project would be subject to a maximum FAR of 0.35. Because the Proposed Project's FAR would be 0.346, the Proposed Project would comply with the City's FAR requirements.

The following discretionary approvals are required:

- Conditional Use Permit for Hardware Store and Outdoor Lumber Yard;
- Development Review for new construction of 65,263 sf store and associated outdoor material storage structures and mill shed;
- Variances from building height from 34 to 41 feet for the solar roof canopy, elevator overrun, B-shed, and roof-deck parking level;
- Variance from front setback requirement (20 feet required, 10 feet proposed); and
- Planned Signing Program for freestanding signs up to 25 feet in height (12 feet allowed; 25 feet proposed)

Approval of the Proposed Project would require a variance to allow a maximum height of 41 feet for the Proposed Project. Code establishes a maximum height limit of two stories/30 feet in the commercial zone. The following building heights are proposed from grade level:

- Elevator/Stairwell Overrun: 41 feet
- Solar Panel Deck: 34 feet
- Shed B: 34 feet
- Roof Level Parking

In addition, a Planned Sign Program would be required to allow a proposed sign height of 25 feet, which is higher than the maximum 12-foot height allowed by the development standards contained in the City's Zoning Ordinance.

Table 3.10.A, Zoning Ordinance Development Standards Consistency Analysis, provides a list of applicable development standards and an evaluation of the Proposed Project's consistency with each standard.

As described in Table 3.10.A, the Proposed Project would require variances related to the building heights and the front setback along Bristol Street. With approval of such variances, the Proposed Project would be consistent with the City's Zoning Code.

Table 3.10.A: Zoning Ordinance Development Standards Consistency Analysis

City of Costa Mesa Development Standards for C1 (Local Business) Zone[1]	Project Consistency Analysis
Minimum Lot Area:12,000 square feet (116m^2)	**Consistent.** The lot size for the Proposed Project is 6.6 ac, or 287,696 sf.
Minimum Lot Width for Newly Subdivided Lots: 120 feet	**Consistent:** The lot width for the project site is approximately 1,127 feet.
Minimum Lot Width: 60 feet	**Consistent:** The lot width for the project site is approximately 1,127 feet.
Maximum Floor Area Ratio: 0.35	**Consistent:** The Proposed Project's FAR would be 0.346.
Maximum Building/Structure Height: 2 stories/30 feet	**Variances Required.** With the solar roof canopy, the proposed height for Building A would be approximately 34 feet, with the exception of the elevator and stairwell providing roof access for Building A, which would be 41 feet. The B Shed would be 34 feet tall. Roof level parking is proposed. All other structures on site would be less than 30 feet in height, and would therefore comply with the maximum building height specified in the City's Zoning Code. With approval of a height variance for Building A and B Shed, the Proposed Project would be consistent with the City's Zoning Code.
Minimum Setbacks • **Front:** 20 feet • **Side (Interior):** 15 feet on one side and 0 feet on the other side. Exception: If the side property line is adjacent to a residential zone, all buildings shall maintain a side setback from the residential property line of 2 times the building height at all locations. • **Rear (Interior):** 0 feet	• Front: 10 feet. **Variance Required.** • Side (Interior): **Consistent.** • Rear (Interior): **Consistent.**
Maximum Projections Depth • **Roof or Eaves Overhang; Awning:** 2 feet 6 inches into required side setback. 5 feet into required front or rear setback. • **Open, Unenclosed Stairways:** 2 feet 6 inches into required setback area.	**Consistent.** The Proposed Project would not include any roof eaves, awnings, or open, unenclosed stairways into the required setback area for the project site.
Parking: 2.5 spaces per 1,000 sf (239 spaces)[2]	**Consistent.** The Proposed Project would provide 286 spaces in the form of both at-grade and roof-top parking stalls.
Landscaping: 5% of total site area	**Consistent.** The Proposed Project would provide 15,748 sf of landscaping, a surplus of 1,363 sf over the required 14,385 sf.

Table 3.10.A: Zoning Ordinance Development Standards Consistency Analysis

City of Costa Mesa Development Standards for C1 (Local Business) Zone[1]	Project Consistency Analysis
Signs • **Maximum Area**: 0.5 sf per lineal foot of building frontage facing the street, with a maximum of 75 sf per tenant • **Maximum Height**: 12 feet	**Consistent (Maximum Area).** The Proposed Project would be allowed 1,329 sf of signage, but proposes only 1,293 sf of signage. **Consistent (Maximum Height):** 25 feet. **Planned Signing Program Required.** The Proposed Project would require a Planned Sign Program (PSP) for a proposed sign height of 25 feet. With approval of a PSP for the proposed signage, the Proposed Project would be consistent with the City's Zoning Code.
Planned Signing Program: Required.	**Consistent.** The Proposed Project would implement a planned signage program.
Conditional Use Permit, Variances, Development Review: Required. The final review authority is the Planning Commission.	**Consistent.** The Proposed Project would be considered by the Planning Commission.
Uses Underroof: All uses shall be conducted underroof except as allowed by a minor conditional use permit or as permitted elsewhere in this Zoning Code. Exception: Sidewalk and parking lot sales may be allowed for a maximum of 4 sales per fiscal year with a maximum length of 3 days per sale and subject to obtaining a business permit.	**Consistent.** The Proposed Project would comply with zoning code requirements to maintain all operations underroof, except as allowed in the outdoor lumber yard area by CUP.
Outdoor Storage: Permitted when: Storage does not interfere with required parking or vehicular access; storage is not in required setback area abutting a public right-of-way; storage does not decrease required landscaping; storage is completely screened from view from street or adjacent properties; storage complies with all applicable codes and regulations including, but not limited to, the Uniform Fire Code. Shipping containers shall also comply with setback requirements for structures, floor area ratio standards, and parking requirements. A permanent foundation shall be required for shipping containers. Storage not meeting these criteria requires approval of a minor conditional use permit.	**Consistent.** The Proposed Project would comply with all outdoor storage requirements as allowed by CUP.

Source: City of Costa Mesa. *Costa Mesa Municipal Code Commercial Development Standards,* as amended.
[1] City of Costa Mesa. Costa Mesa *Municipal Code,* as amended.
[2] Parking as determined by LLG study dated December 18, 2014.
ac = acres
ft = foot/feet
sf = square feet

The Proposed Project would be a compatible use subject to a Conditional Use Permit (CUP) that would allow for a hardware store and outdoor storage yard in an area zoned for commercial uses. With approval of the CUP and Development Review, the Proposed Project would be consistent with applicable goals and policies outlined in the City's General Plan and development standards outlined in the City's Zoning Code. Therefore, implementation of the Proposed Project would not result in conflicts with any applicable land use plan, policy, or regulation applicable to the project.

Mitigation Measures: No mitigation would be required.

(c) **No Impact.** The project site is not located within a "Habitat Reserve System" or a "Covered Habitat" area as identified by the Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) (County of Orange 1996). No impact would occur.

Mitigation Measures: No mitigation would be required.

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3.11 MINERAL RESOURCES

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
(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?	☐	☐	☐	☒

3.11.1 Impact Analysis

(a) **No Impact.** No known mineral resources are present on the project site (City of Costa Mesa 2000). There are no oil wells located in, or immediately adjacent to, the Proposed Project site according to the State of California Department of Conservation Regional Wildcat District W1-6 Map (California Department of Conservation 2008). The Proposed Project is not located in a Significant Mineral Aggregate Resource Area (SMARA), and no mining activity has been conducted on site (California Department of Conservation). Therefore, the Proposed Project would not result in the loss of a valuable commercial or locally important mineral resource. No impacts would occur.

Mitigation Measures: No mitigation would be required.

(b) **No Impact.** The project area is not located within a locally-important mineral resource recovery site (City of Costa Mesa 2000). No impacts would occur.

Mitigation Measures: No mitigation would be required.

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3.12 NOISE

Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
(c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
(d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☒	☐
(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?	☐	☐	☒	☐
(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?	☐	☐	☐	☒

3.12.1 Introduction

A noise impact analysis study (see Appendix G) was performed by Kunzman Associates, Inc. to address the possibility of significant impacts due to noise (Kunzman 2014b). The findings of this study are summarized in the following sections.

3.12.2 Environmental Setting

Sensitive Receptors. Some land uses are considered more sensitive to intrusive noise than others due to the amount of noise exposure and the types of activities typically involved at the receptor location. Noise exposure at these sensitive receptors is predicated on the magnitude and frequency of said noise event, exposure duration, and exterior-to-interior sound attenuation. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, nursing homes, and parks are generally more sensitive to noise than commercial and industrial land uses. For purposes of the noise analysis, the nearest sensitive receptors to the project site are single family residential units located west of Bristol Street approximately 335 feet southwest of the proposed Ganahl Lumber facility on Master's Circle. These sensitive receptors would have direct line of sight exposure to the noisiest activities associated with the construction of the Proposed Project.

City of Costa Mesa General Plan Noise Element. The City of Costa Mesa (City) aims to protect its citizens and property from injury, damage, or destruction from noise hazards and to work towards improved noise abatement. Objectives and policies applicable to the Proposed Project are presented below:

- Objective N-1A: Control noise levels within the City for the protection of residential areas and other sensitive land uses from excessive and unhealthful noise.
    - Policy N-1A.1: Require, as a part of the environmental review process, that full consideration be given to the existing and projected noise environment.

The Noise Element also establishes the noise/land use compatibility criteria to be used in determining whether a new use is appropriate within a given noise environment. The proposed land use can be considered both an industrial land use (outdoor mill and wood processing yard) and a commercial land use (retail store) for purpose of determining noise impacts. Industrial land uses are considered to be normally acceptable in environments with noise levels of up to 70 A-weighted decibels (dBA) community noise equivalent (CNEL) and conditionally acceptable in environments with noise levels of up to 75 dBA CNEL. Commercial land uses are considered normally acceptable in environments with noise levels of up to 67.5 dBA CNEL and conditionally acceptable in environments with noise levels of up to 77.5 dBA CNEL.

City of Costa Mesa Municipal Code. The City's Municipal Code provides standards for both exterior and interior noise levels in Section 13-280 and 13-281, respectively (City of Costa Mesa as amended). These regulations are meant to prevent excessive noise levels in the City. Throughout the City, it is unlawful to create noise levels that will affect residential properties that exceed:

(1) The noise standard for a cumulative period of more than thirty (30) minutes in any hour;
(2) The noise standard plus five (5) dB(A) for a cumulative period of more than fifteen (15) minutes in any hour;
(3) The noise standard plus ten (10) dB(A) for a cumulative period of more than five (5) minutes in any hour;
(4) The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one (1) minute in any hour; or
(5) The noise standard plus twenty (20) dB(A) for any period of time.

In addition, Section 13-283, Loud, Unnecessary Noise, of the City's Municipal Code addresses other noise impacts that may be considered a nuisance.

Industry Accepted Standards. It is generally recognized that in an urban noise environment, a 3 dBA increase in noise level is considered to be barely perceptible, while an increase of 5 dBA would be clearly perceptible. An increase above ambient noise levels between 3 dBA and 5 dBA would result in an adverse, but not significant impact, while an increase in noise level of 5 dBA or more would be considered a significant impact. These guidelines are commonly used in acoustics and noise impact assessments to address increases in noise levels. Table 3.12.A provides land use compatibility standards for exterior noise levels.

Ambient Noise Measurements. Noise measurements were taken on-site at the existing Ganahl Lumber Facility between 11:53 a.m. and 12:33 p.m. on March 18, 2014. Noise sources included traffic from State Route 73 (SR-73) and Bristol Street, trucks, forklifts, and other lumberyard operations. Please see Table 3.12.B, Ambient Noise Levels, below for the ambient noise levels at the existing Ganahl Lumber Facility and the nearest sensitive receptors to the project site.

Table 3.12.A: Land Use Compatibility for Exterior Community Noise

Land Use Category	Noise Range (L_{dn} or CNEL), dB			
	I	II	III	IV
Passively used open spaces	50-70	70-80	80-85	N/A
Auditoriums, concert halls, amphitheaters	N/A	50-70	N/A	70-85
Residential—low-density single-family, duplex, mobile homes	50–60	60-70	70–75	75-85
Residential—multifamily	50–65	65–70	70–75	75-85
Transient lodging—motels, hotels	50–65	65-70	70–80	80-85
Schools, libraries, churches, hospitals, nursing homes	50–60	60–65	65-80	80-85
Actively used open spaces—playgrounds, neighborhood parks	50–67.5	N/A	67.5-75	75-85
Golf courses, riding stables, water recreation, cemeteries	50–70	N/A	70–80	80-85
Office buildings, business commercial, and professional	50–67.5	67.5–7.5	77.5-85	N/A
Industrial, manufacturing, utilities, agriculture	50–70	70–80	80-85	N/A

Source: Modified from U.S. Department of Housing and Urban Development Guidelines and State of California Standards and the City of Costa Mesa General Plan.

Notes: Noise Range I—Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Noise Range II—Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air-conditioning, would normally suffice.

Noise Range III—Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Noise Range IV—Clearly Unacceptable: New construction or development should generally not be undertaken.

dB = decibels
CNEL = community noise equivalent level
L_{dn} = day-night average level
N/A = not applicable

Table 3.12.B: Ambient Noise Levels

Name	Land Use	Time Period	Measurement Period	Existing Ambient Noise Levels (dBA)					
				L_{eq}	L_{max}	L_2	L_8	L_{25}	L_{50}
NM1	Existing Ganahl Lumber Facility	11:53 AM-12:08 PM	15 minutes	70.3	86.6	79.8	74.2	68.3	65.7
NM2	Single-Family Residential	12:18 PM-12:33 PM	15 minutes	63.9	82.2	73.9	65.6	59.9	57.7

Source: Kunzman (2014b).

3.12.3 Impact Analysis

(a) **Less than Significant Impact**

Construction Impacts. Construction-related short-term noise levels would be higher than existing ambient noise levels in the vicinity of the project site, but would no longer occur once construction of the Proposed Project is complete. For purposes of the noise impact analysis, sensitive receptors that may be affected by project construction include the single-family detached residential dwelling units located southwest of the Proposed Project and west of Bristol Street on The Masters Circle. The closest single-family detached residential dwelling unit to the project site is approximately 335 feet to the southwest.

Construction noise varies depending on the construction process, type of equipment involved, location of the construction site with respect to sensitive receptors, the schedule proposed to carry out each task (e.g., hours and days of the week), and the duration of the construction work. The initial phase of construction would involve mass grading of the site, along with site development activities, including construction of internal roadways which involves fine grading, trenching, and paving activities. Following site preparation activities, the Proposed Project would include construction of buildings. Construction of the buildings would require the following phases: site development (fine grading, trenching, and paving), building construction, architectural coatings application, and paving associated with buildings.

Mass site grading is expected to produce the highest construction noise levels. Grading of the site is estimated to require a grader, backhoe, dozer, excavator, and water truck (modeled as a dump truck). Typical noise sources and noise levels associated with the site grading phase of construction are shown in Table 3.12.C, Typical Construction Equipment Noise Levels.

A worst case construction scenario was conducted to estimate construction noise at the closest sensitive receptors using the Road Construction Noise Model (RCNM) provided by the Federal Highway Administration (FHWA). Project construction noise levels may reach 64.3 dBA average noise levels (L_{eq}) and up to 65.0 dBA maximum noise level (L_{max}) at the nearest sensitive receptor located southwest of the project site. It should be noted that there is a six foot concrete barrier along the northeastern boundary of the potentially affected single family neighborhood. This barrier can be expected to reduce construction noise at back yards and first floor rooms by 5 dBA.

Project construction activities could temporarily increase ambient noise levels at the nearest sensitive receptor by less than 1 dB during daytime hours. This increase would not result in an audible change. As long as project construction activities adhere to Standard Condition NOISE-1 described below, which limits construction noise to the hours and days exempt from the City's Noise Ordinance, impacts would be less than significant.

Operation Impacts.

On-Site Operational Noise. As stated previously, for purposes of the noise impact analysis, the nearest sensitive receptors to the project site are the single-family detached residential dwelling units located approximately 335 feet southwest of the project site.

Table 3.12.C Typical Construction Equipment Noise Levels

Type of Equipment	Range of Maximum Sound Levels Measured (dBA at 50 ft)	Suggested Maximum Sound Levels for Analysis (dBA at 50 ft)
Rock Drills	83-99	96
Jack Hammers	75-85	82
Pneumatic Tools	78-88	85
Pumps	74-84	80
Dozers	77-90	85
Scrapers	83-91	87
Haul Trucks	83-94	88
Cranes	79-86	82
Portable Generators	71-87	80
Rollers	75-82	80
Tractors	77-82	80
Front-End Loaders	77-90	86
Hydraulic Backhoe	81-90	86
Hydraulic Excavators	81-90	86
Graders	79-89	86
Air Compressors	76-89	86
Trucks	81-87	86

Source: Kunzman (2014b).
dBA = A-weighted decibels
ft = foot/feet

Representative operational noise measurements were taken in the existing lumber yard at the adjacent Ganahl Lumber facility. Average hour noise sources were comprised of trucks, backhoes, wood processing and loading equipment. Measured noise levels reached 70.3 dBA L_{eq} and 86.6 dBA L_{max}.

The above noise source levels were assigned to the project site approximately 80 feet northeast of Bristol Street to represent noise associated with the Proposed Project. This noise was then projected to the nearest sensitive receptors (approximately 335 feet to the southwest) where it is expected to reach 44.6 dBA L_{eq} and 60.9 dBA L_{max}. Project operational noise would not be discernible over existing daytime ambient noise levels (63.9 dBA L_{eq} and 82.2 dBA L_{max}) at sensitive receptors.

The Proposed Project would also include employee and visitor parking areas. Typical noises that may be generated by the proposed parking lot include landscaping maintenance, conversations and/or yelling in parking lots, vehicle doors closing, and car alarms. These types of activities can generate noise levels between 49 dBA (tire squeals) and 74 dBA (car alarms) at 50 feet and would attenuate to 32.6 dBA and 57.6 dBA at the nearest sensitive receptor to the proposed parking lot (approximately 330 feet). Noise associated with parking lot activities would not be discernible over existing ambient noise levels at the nearest sensitive receptors. Therefore, impacts would be less than significant.

Project Generated Traffic Noise Impacts to Sensitive Receptors. In order to determine if the project generated vehicle traffic would result in substantial increases in ambient noise levels at sensitive receptors along Bristol Street, *Existing and Existing Plus Project* vehicle noise were modeled utilizing trip generation provided in the traffic study prepared for the Proposed Project (LLG 2014). The existing average daily traffic (ADT) along the affected portion of Bristol Street is 22,800. The Proposed Project would add approximately 2,287 ADT. Modeled *Existing* noise levels at a distance of 100 feet from the centerline are 69.3 dBA CNEL; and modeled *Existing Plus Project* traffic noise levels at 100 feet from the centerline are 69.5 dBA CNEL. The Proposed Project would result in an increase of approximately 0.2 dBA CNEL and would not result in a substantial increase in ambient noise levels. Impacts would be less than significant.

Traffic Noise Impacts to the Proposed Project. The City of Costa Mesa Noise Element establishes the noise/land use compatibility criteria to be used in determining whether a new use is appropriate within a given noise environment. As described above, industrial land uses are considered to be normally acceptable in environments with noise levels of up to 70 dBA CNEL and conditionally acceptable in environments of up to 80 dBA CNEL. Commercial land uses are considered normally acceptable in environments with noise levels of up to 67.5 dBA CNEL and conditionally acceptable in environments with noise levels of up to 77.5. Noise levels associated with SR-73, the dominant noise source at the project site, are expected to reach up to 74.7 dBA CNEL at the lumber yard and 72.6 at the exterior of the proposed retail store. As shown in Table 3.12.A, Land Use Compatibility for Exterior Community Noise, these noise levels are considered to be conditionally acceptable according to the City of Costa Mesa's Noise Element, which means that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Mitigation Measure NOISE-1 would require Building A to be designed to include closed windows and air conditioning, which would reduce potential noise impacts on the retail portion of the Proposed Project. The Ganahl Lumber facility would be subject to Section 1910.95(b)(1) of State of California Code Regulations, which establishes noise level exposure criteria at which employees must utilize personal protective equipment. With implementation of Mitigation Measure NOISE-1, noise impacts during operations would be less than significant.

Standard Conditions:

NOISE-1: **Short-Term Construction Related Noise Impacts.** The following standard conditions are required of all development within the City of Costa Mesa (City) and would reduce short-term construction related noise impacts resulting from the Proposed Project:

- The Applicant's construction contractor shall limit all construction-related activities to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays.

Mitigation Measure:

NOISE-1: **Noise Reduction Features.** Prior to the issuance of building permits for Building A, the Applicant shall submit the building plans for review and approval by the City of Costa Mesa (City) Building Official, or designee, to ensure the building will be designed with closed windows and an air conditioning system to reduce noise levels associated with traffic noise to an acceptable level.

(b) **Less Than Significant Impact.**

Groundborne vibration is an oscillatory motion that is often described by the average amplitude of its velocity in inches per second or more specifically, peak particle velocity (ppv). Groundborne vibration is much less common than airborne noise; the ambient peak particle velocity of a residential area is commonly .0003 inches per second or less, well below the threshold of human perception of .0059 inches per second. Nonetheless, human reactions to vibration are highly subjective, and even levels below the threshold can cause minor annoyances like rattling of dishes, doors, or fixtures.

Table 3.12.D shows the peak particle velocities of some common construction equipment and haul trucks (loaded trucks). The most vibration causing piece of equipment that would likely be used on the site is the vibratory roller. This machine can cause vibration strong enough to annoy people over 100 feet away. However, there are no sensitive receptors located within 100 feet of the project site; therefore, there would not be an impact.

Table 3.12.D: Construction Equipment Vibration Source Levels

Equipment	Peak Particle Velocity in inches per second		
	at 25 ft	at 50 ft	at 100 ft
Clam Shovel Drop (slurry wall)	0.202	0.071	0.025
Vibratory Roller	0.210	0.074	0.026
Hoe Ram	0.089	0.031	0.011
Large Bulldozer	0.089	0.031	0.011
Caisson Drilling	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Jackhammer	0.035	0.012	0.004
Small Bulldozer	0.003	0.001	0.0004

Source: Kunzman (2014b).

Haul trucks would not be anticipated to exceed 0.10 inch/second ppv at 10 feet (Kunzman 2014b). Predicted vibration levels at the nearest off-site structures, which are located in excess of 25 feet from the Bristol Street and Newport Boulevard roadway segments in the vicinity of the project site, would not be anticipated to exceed even the most conservative threshold of 0.2 inch/second ppv. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(c) **Less Than Significant Impact.** As previously stated in the response to question 3.12 (a) above, operational noise would not be discernible over existing daytime ambient noise levels (63.9 dBA L_{eq} and 82.2 dBA L_{max}) at sensitive receptors. Furthermore, noise associated with parking lot activities would not be discernible over existing ambient noise levels at the nearest sensitive receptors. Impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(d) **Less than Significant Impact.** As previously stated in the response to question 3.12 (a) above, construction activities could temporarily increase ambient noise levels at the nearest sensitive receptor by less than 1 dB during daytime hours. This increase would not result in an audible change. With adherence to Standard Condition NOISE-1, which limits construction noise to the hours and days exempt from the City's Noise Ordinance, impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(e) **Less than Significant Impact.** The project site is located approximately 0.5 mile to the west of the John Wayne Airport and is within the land use planning area managed by the Airport Environs Land Use Plan for John Wayne Airport (AELUP) (ALUC 2008). The project site is located within the 60 dB Community Noise Equivalent Level (CNEL) contour (ALUC 2008). Commercial land uses exposed to noise levels of 60 dB CNEL are considered "Normally Consistent" (conventional construction methods used, no special noise reduction requirements) by the AELUP (ALUC 2008). Impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(f) **No Impact.** There are no private airstrips within the vicinity of the project site. No impact would occur.

Mitigation Measures: No mitigation would be required

3.13 POPULATION AND HOUSING

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
(c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.13.1 Impact Analysis

(a) **Less than Significant Impact.** The Proposed Project would replace the existing Ganahl Lumber store located adjacent to the project site with a new Ganahl Lumber store. Initially, the new store would employ 90 to 100 people, an increase of approximately 10 to 20 employees over the existing Ganahl Costa Mesa store. At full capacity, the store would employ approximately 120 employees, an increase of 40 employees. Because all of the additional employees would be able to be hired from the existing local labor pool, the Proposed Project would not substantially increase the employment opportunities in the area capable of inducing population growth. A less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(b) **No Impact.** The Proposed Project would not displace housing. The project site is located on a vacant lot adjacent to the existing Ganahl Lumber store. No impact would occur.

Mitigation Measures: No mitigation would be required.

(c) **No Impact.** The Proposed Project would not remove housing; therefore, it would not displace people. No impact would occur.

Mitigation Measures: No mitigation would be required.

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3.14 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project result in substantial adverse physical impacts associated with the provision of or 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:				
i) Fire Protection?	☐	☐	☒	☐
ii) Police Protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☐	☒
iv) Parks?	☐	☐	☐	☒
v) Other public facilities?	☐	☐	☐	☒

3.14.1 Impact Analysis

(a) i) **Less than Significant Impact. .** The City of Costa Mesa (City) Fire Department is located less than two miles southwest of the project site and provides fire services to the project site (City of Costa Mesa 2014b). The Proposed Project would not create a substantial new fire hazard. At full capacity, the store would employ approximately 120 employees, an increase of 40 employees over the existing Ganahl Costa Mesa store. These employees would be hired from the local labor pool. Therefore, the Proposed Project would not result in the need for new or physically altered government facilities or affect response time or other performance objectives. The Proposed Project includes construction of a new Ganahl Lumber retail store and lumber storage yard that would replace the existing Ganahl Lumber store on the property adjacent to the project site. The Proposed Project would result in an increase in the total square footage of the retail store and lumber storage yard; however, this increase in size would not result in a significant increase in demand for fire protection services. Because the Proposed Project involves relocation of an existing use that has been anticipated by the City's General Plan, impacts to fire protection services would be less than significant.

Mitigation Measures: No mitigation would be required.

(a) ii) **Less than Significant Impact.** The City of Costa Mesa Police Department is located less than two miles southwest of the project site and provides police services to the project site (City of Costa Mesa 2014a). As discussed above, the new store would employ approximately 120 employees, an increase of 40 employees over the existing Ganahl Costa Mesa store.These employees would be hired from the local labor pool. Therefore, the Proposed Project would not result in the need for new or physically altered government facilities or affect response time or other performance objectives. The Proposed Project includes construction of a new Ganahl Lumber retail store and storage yard that would replace the existing Ganahl Lumber store on a property adjacent to the project site. Because the Proposed Project involves relocation of an existing use that has been anticipated by the City's General Plan, and no increase in police protection services is expected, a less than significant impact to police protection services would occur.

Mitigation Measures: No mitigation would be required.

(a) iii) **No Impact.** There are ten schools in the vicinity of the project site: Mariners Christian School, Sonora Elementary School, Pacific Coast High School/Community Home Education Program (CHEP), Vineyard Christian School, Montessori Christian School, Back Bay Montessori, Saint John the Baptist Catholic School, Access County Community School, Costa Mesa High School, and Davis Magnet School. All schools are located within one mile of the project site, but are physically separated from the project site by State Route (SR-55) or State Route 73 (SR-73). The Proposed Project would generate between 10 and 40 new employees, which would be able to be hired from the local labor pool. This increase in employment would not be growth-inducing; therefore, there would not be a substantial demand for schools, parks, or other public facilities. No impact would occur. The Applicant would pay applicable development impact fees as determined by the Newport-Mesa Unified School District. The Proposed Project includes construction of a new Ganahl Lumber retail store and lumber storage yard that would replace the existing Ganahl Lumber store on the property adjacent to the project site. Because the Proposed Project involves relocation of an existing use anticipated by the City's General Plan, and no increase in demand for public schools is expected, no impacts to schools would occur.

Mitigation Measures: No mitigation would be required.

(a) iv) **No Impact.** The City of Costa Mesa operates 30 parks within its City boundaries. Bark Park and Tewinkle Park located at 890 and 970 Arlington Drive, respectively, are located within 0.5 miles of the project site. The Proposed Project would generate between 10 and 40 new employees, which would be able to be hired from the local labor pool. This increase in employment would not be growth-inducing; therefore, there would not be a substantial demand for schools, parks, or other public facilities. Because the Proposed Project involves relocation of an existing use anticipated by the City's General Plan, no increase in demand for parks is expected. Therefore, no impact would occur.

Mitigation Measures: No mitigation would be required.

(a) v) **No Impact.** The Proposed Project would generate between 10 and 40 new employees, which would be able to be hired from the local labor pool. This increase in employment would not be growth-inducing; therefore, there would not be a substantial demand for other public facilities. The project would not result in the need for new or physically altered government facilities or affect response time or other performance objectives. Because the Proposed Project involves relocation of an existing use anticipated by the City's General Plan, and no increase in demand for government facilities is expected, no impacts to other government facilities would occur.

Mitigation Measures: No mitigation would be required.

3.15 RECREATION

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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)	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?	☐	☐	☐	☒

3.15.1 Impact Analysis

(a) **No Impact.** The Proposed Project does not involve residential uses and would not cause a direct increase in the population of the City or surrounding areas. At full capacity, the new store would employ approximately 120 employees, an increase of 40 employees over the existing Ganahl Costa Mesa store. No substantial increase in demand, or use of, existing parks or recreational facilities would result from the implementation of the Proposed Project.

Mitigation Measures: No mitigation would be required.

(b) **No Impact.** The Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse effect on the environment. No impact would occur.

Mitigation Measures: No mitigation would be required.

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3.16 TRANSPORTATION/TRAFFIC

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☒	☐
(b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☒	☐
(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?	☐	☐	☐	☒
(d) Substantially increase hazards due to a design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
(e) Result in inadequate emergency access?	☐	☒	☐	☐
(f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☒

3.16.1 Introduction

A focused traffic impact study (see Appendix H) was completed for the Proposed Project by Linscott, Law, & Greenspan, Engineers (LLG 2014). The focused traffic impact study evaluated three key study intersections in the vicinity of the project site which included:

1. Southbound Newport Boulevard at Bristol Street (signalized);
2. Northbound Newport Boulevard at Bristol Street (signalized); and
3. Red Hill Avenue/Santa Ana Avenue at Bristol Street (signalized).

These key locations were selected for evaluation based on discussions with City of Costa Mesa (City) staff and in consideration of the Orange County Congestion Management Program (CMP). The Level of Service (LOS) analysis at these key locations were used to evaluate the potential traffic related impacts associated with area growth, cumulative projects, and the Proposed Project. The findings of this investigation are summarized in the following sections.

3.16.2 Environmental Setting

The principal local street network serving the project site includes Bristol Street, Red Hill Avenue, and Newport Boulevard. The following discussion provides a brief synopsis of these key area streets.

Bristol Street is generally a six-lane roadway, divided with a two-way left turn pocket, oriented in the east-west direction. The existing two-way left-turn along the project site's frontage and the

existing Ganahl Lumber store now serves to provide left-turn ingress and egress to the existing development along the south side as well as the development on the north side. It is classified as a Major Arterial in the City of Costa Mesa Circulation Element. The posted speed limit on Bristol Street is 45 miles per hour (mph). On-street parking is not permitted along this roadway in the vicinity of the project site. Traffic signals control the study intersections of Bristol Street at Newport Boulevard (southbound), Newport Boulevard (northbound), and Red Hill Avenue. Bristol Street borders the project site to the south.

Red Hill Avenue is generally a four-lane, divided roadway, oriented in the north-south direction. The posted speed limit on Red Hill Avenue is 50 mph. On-street parking is not permitted along this roadway in the vicinity of the project site. Red Hill Avenue is classified as a Major Arterial in the City of Costa Mesa Circulation Element.

Newport Boulevard is a one-way, two-lane roadway oriented in the north-south direction. The Newport Boulevard frontage road parallels the Costa Mesa Freeway (State Route 55 [SR-55]) and provides local access to the development that straddles the freeway on both sides. The posted speed limit on Newport Boulevard is 45 mph. On-street parking is not permitted along this roadway in the vicinity of the project site.

Existing a.m. and p.m. peak hour operating conditions for the three key study intersections were evaluated using the Intersection Capacity Utilization (ICU) methodology for signalized intersections (LLG 2014).

Table 3.16.A summarizes the existing peak hour LOS for the three key study intersections based on existing traffic volumes and current street geometrics. It should be noted that the existing traffic volumes include traffic that is now generated by the existing Costa Mesa Ganahl Lumber store and current LOS are representative of this condition.

Table 3.16.A: Existing Peak Hour Intersection Capacity Analysis

Key Intersection	Time Period	Jurisdiction	Control Type	ICU	LOS
Newport Boulevard (SB) at Bristol Street	AM	City of Costa Mesa	3 Phase Signal	0.233	A
	PM			0.492	A
Newport Boulevard (NB) at Bristol Street	AM	City of Costa Mesa	2 Phase Signal	0.276	A
	PM			0.415	A
Red Hill Avenue at Bristol Street	AM	City of Costa Mesa	8 Phase Signal	0.409	A
	PM			0.287	A

Source: Linscott, Law, & Greenspan, Engineers (2014).
ICU = Intersection Capacity Utilization
LOS = level of service
SB = southbound
NB = northbound

3.16.3 Impact Analysis

(a) **Less than Significant Impact.** The City of Costa Mesa's General Plan Circulation Element identifies and establishes the City's policies governing the system of roadways, intersections, bike paths, pedestrian ways, and other components of the circulations system, which collectively provide for the movement of persons and goods throughout the City (City of Costa Mesa 2000). The Circulation Element includes two goals:

- **Goal CIR-1:** Transportation – It is the goal of the City of Costa Mesa to provide for a balanced, uncongested, safe, and energy-efficient transportation system, incorporating all feasible modes of transportation; and
- **Goal CIR-2:** Transportation System Management – It is the goal of the City of Costa Mesa to provide for standard service levels at signalized intersections by constructing capacity improvements for all various modes of circulation, adopting land use intensities commensurate with planned circulation improvements and implementing traffic demand reduction programs, thereby creating a more energy efficient transportation system.

The Circulation Element also lists several objectives and policies to achieve the City's circulation goals.

Construction Impacts

The Proposed Project would generate short-term construction related vehicle trips. However, traffic generated by construction of the Proposed Project would be temporary and would not conflict with the City of Costa Mesa's Circulation Element. Impacts would be less than significant.

Operational Impacts

The traffic impacts of the Proposed Project during the a.m. peak hour and p.m. peak hour were evaluated based on analysis of future operating conditions at the three key study intersections and the two future site driveways. The future volume-to-capacity relationships and service level characteristics at each study intersection were analyzed. The significance of the potential impacts of the Proposed Project at each key intersection was then evaluated using the following traffic impact criteria.

Impact Criteria and Thresholds

Per the City of Costa Mesa guidelines, LOS D is the minimum acceptable level of service that should be maintained during the weekday a.m. peak hour and weekday p.m. peak hour. Per the City's criteria, the Proposed Project is considered to have a significant impact if the following criteria are met:

For signalized intersections:

- The ICU value under "with the Proposed Project" conditions is 0.91 or greater (LOS E or F); and
- The ICU increase attributable to the Proposed Project is 0.01 or greater.

For unsignalized intersections:

- The estimated delay under "with the Proposed Project" conditions is 35.1 seconds/vehicle (s/v) or greater (LOS E or F).

Traffic Impact Analysis Scenarios

The following scenarios are those for which volume/capacity calculations have been performed at the three key intersections for existing plus project and near-term (Year 2016) traffic conditions:

A. Existing Traffic Conditions;
B. Existing Plus Proposed Project Traffic Conditions;
C. Scenario (B) with Improvements, if necessary;
D. Near-Term (Year 2016) Cumulative Traffic Conditions;
E. Near-Term (Year 2016) Cumulative plus Project Traffic Conditions;
F. Scenario (E) with Improvements, if necessary.

Existing Plus Proposed Project Analysis

Table 3.16.B summarizes the peak hour LOS results for existing plus project traffic conditions at the three key study intersections using the ICU methodology and the Proposed Project's unsignalized driveway using the methodology outlined in Chapter 17 of the Highway Capacity Manual 2000 (HCM 2000).

Table 3.16.B: Existing Plus Proposed Project's Peak Hour Intersection Capacity Analysis

Key Intersection	Time Period	Existing Traffic Conditions		Existing Plus Project Traffic Conditions		Significant Impact
		ICU/ HCM	LOS	ICM/ HCM	LOS	Yes/No
Newport Boulevard (SB) at Bristol Street	AM	0.233	A	0.233	A	No
	PM	0.492	A	0.492	A	No
Newport Boulevard (NB)/Driveway 1 at Bristol Street	AM	0.276	A	0.426	A	No
	PM	0.415	A	0.444	A	No
Red Hill Avenue at Bristol Street	AM	0.409	A	0.409	A	No
	PM	0.287	A	0.287	A	No
Driveway 2 (truck-entry only) at Bristol Street	AM	--	--	8.3 s/v	A	No
	PM	--	--	13.3 s/v	B	No

Source: Linscott, Law, & Greenspan, Engineers (2014).
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
LOS = level of service
NB = northbound
SB = southbound
s/v = seconds per vehicle
-- = intersection is part of Proposed Project and does not currently exist

Table 3.16.B indicates that traffic associated with the Proposed Project would not have an impact at any of the key study locations when compared to the LOS standards and significance impact criteria. As shown, the key study intersections, inclusive of the site driveways, are forecast to operate at LOS B or better during the weekday a.m. and p.m. peak hours.

Year 2016 Traffic Conditions. Table 3.16.C summarizes the peak hour LOS results at the three key study intersections and site driveway for the Year 2016 horizon year.

Table 3.16.C: Year 2016 Peak Hour Intersection Capacity Analysis

Key Intersection	Time Period	Existing Traffic Conditions		Year 2016 Cumulative Traffic Conditions		Year 2016 Cumulative Plus Project Traffic Conditions		Significant Impact
		ICU/ HCM	LOS	ICU/ HCM	LOS	ICU/ HCM	LOS	Yes/No
Newport Boulevard (SB) at Bristol Street	AM	0.233	A	0.246	A	0.246	A	No
	PM	0.492	A	0.506	A	0.506	A	No
Newport Boulevard (NB)/ Driveway 1 at Bristol Street	AM	0.276	A	0.289	A	0.447	A	No
	PM	0.415	A	0.436	A	0.467	A	No
Red Hill Avenue at Bristol Street	AM	0.409	A	0.426	A	0.426	A	No
	PM	0.287	A	0.301	A	0.301	A	No
Driveway 2 (truck-entry only) at Bristol Street	AM	--	--	--	--	8.4 s/v	A	No
	PM	--	--	--	--	13.9 s/v	B	No

Source: Linscott, Law, & Greenspan, Engineers (2014).
HCM = Highway Capacity Manual
ICU = Intersection Capacity Utilization
LOS = level of service
NB = northbound
SB = southbound
s/v = seconds per vehicle
--= intersection is part of Proposed Project and does not currently exist

Year 2016 Cumulative Traffic Conditions. An analysis of future (Year 2016) cumulative traffic conditions indicates that the addition of ambient traffic growth and related projects traffic would not impact any of the key study intersections. All three locations are projected to continue to operate at LOS A during the weekday a.m. and p.m. peak hours.

Year 2016 Cumulative Plus Proposed Project Conditions. Table 3.16.C indicates that traffic associated with the Proposed Project would not impact any of key study intersections. All study intersections are forecast to operate at an acceptable service level (LLG 2014). Operational impacts would be less than significant.

Therefore, increases in traffic related to the Proposed Project would be less than significant, and are not anticipated to result in conflicts with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system.

Mitigation Measures: No mitigation would be required.

(b) **Less than Significant Impact.** The analysis completed in the focused traffic impact study (LLG 2014) is consistent with the requirements and procedures outlined in the current Orange County CMP. The CMP requires that a traffic impact analysis be conducted for any project generating 2,400 or more daily trips, or 1,600 or more daily trips for projects that directly access the CMP Highway System. Per the CMP guidelines, this number is based on the desire to analyze any impacts that will be three percent or more of the existing CMP highway system facilities' capacity. The Proposed Project is expected to generate 2,287 daily trips; however, Bristol Street and the portion of Newport Boulevard in the vicinity of the project site are not part of the County's designated CMP Highway System (the nearest CMP roadway is Harbor Boulevard, approximately 1.7 miles to the west of the project site). Therefore, the Proposed Project does not meet the criteria required for a CMP traffic analysis. Therefore, it is concluded that the Proposed Project would not have any significant traffic impacts on the CMP Highway System. It is noted that the three key study intersections along Bristol Street are forecast to continue to operate at acceptable service levels with the Proposed Project (LLG 2014). Impacts would be less than significant.

Mitigation Measures: No mitigation would be required.

(c) **No Impact.** The Proposed Project would be in compliance with the AELUP for John Wayne Airport, located approximately 2.7 miles from the project site, as demonstrated in the response to question 3.8 (e). The Proposed Project would not include structures or operational conditions that would require a change of air traffic patterns or increase traffic levels or a change in location that would result in substantial safety risks. No impact would occur.

Mitigation Measures: No mitigation would be required.

(d) **No Impact.** The Proposed Project would relocate the existing Costa Mesa Ganahl Lumber store to an adjacent parcel. The Proposed Project would have two driveways along Bristol Street that would be designed to allow for a safe and efficient movement of traffic to and from the project site. The internal circulation of the Proposed Project's site plan has been reviewed by LLG and was determined to be adequate to accommodate service/delivery trucks (SU-30), fire trucks, and large trucks (WB-62). No impact would occur.

Mitigation Measures: No mitigation would be required.

(e) **Less than Significant with Mitigation Incorporated.** Temporary impacts to emergency access may occur during construction. Implementation of Mitigation Measure HAZ-3, which requires the development of a Construction Staging and Traffic Control Plan that would ensure that emergency vehicles would be able to navigate through streets adjacent to the project site, would reduce impacts to emergency access to a less than significant level.

Mitigation Measures: Refer to Mitigation Measure HAZ-2 above.

(f) **No Impact.** The Orange County Transit Authority (OCTA) provides public transit service throughout the City and in proximity to the project site (i.e., Bristol Street and Red Hill Avenue). Approximately six OCTA bus stops are located within 0.5 mi of the project site. The Proposed Project would not affect existing transit service (i.e., bus stops or routes), or conflict with public

transportation programs, plans, or policies. Traffic could increase during construction, but would be temporary (see response to question 3.16 (a) above. During operation, traffic would be similar as the current conditions and transportation facilities would continue to perform as they do currently. No impact would occur.

Mitigation Measures: No mitigation would be required.

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3.17 UTILITIES/SERVICE SYSTEMS

Would the project:		Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☒	☐
(b)	Require or result in the construction of new water or wastewater treatment or collection facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☒	☐
(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?	☐	☐	☐	☒
(d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☒	☐
(e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
(f)	Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
(g)	Comply with federal, state, and local statutes and regulations related to solid wastes.	☐	☐	☐	☒
(h)	Would the project include a new or retrofitted storm water treatment control Best Management Practice (e.g. water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors and odors?	☐	☐	☐	☒

3.17.1 Impact Analysis

(a) **No Impact.** Costa Mesa Sanitary District (CMSD) provides sewer services to the City of Costa Mesa and the project site (CMSD 2014a). The CMSD maintains 224.2 miles of gravity sewer mains. CMSD has 20 sewer pumping stations located within the collection system to convey flow from low lying areas to higher elevations (CMSD 2014b). The CMSD conveys wastewater to the Sanitation Districts of Orange County plants for treatment and disposal. Wastewater is treated at treatment plants in Fountain Valley and Huntington Beach. Combined effluent treated at both plants in the years 2004 and 2005 totaled on average 244 million gallons daily (OCSD 2014).

The Proposed Project would not include any industrial uses that would be subject to an individual permit with specific treatment requirements from the Santa Ana Regional Water Quality Control Board (RWQCB). Sewage would be discharged to the CMSD for treatment at one of the wastewater treatment plants operated by the Sanitation Districts of Orange County. Any increase in wastewater generation as a result of the Proposed Project would not be considered substantial because the Proposed Project is consistent with the General Plan land use designation for the project site and, therefore, would not exceed the capacity of the wastewater treatment plants serving the CMSD. Therefore, no impact would occur, and no mitigation is required.

Mitigation Measure: No mitigation would be required.

(b) **Less than Significant Impact.** Mesa Water District (MWD) provides the City of Costa Mesa (City), including the project site, with water services. MWD's water is a blend of local groundwater from the Lower Santa Ana River Basin managed by the Orange County Water District (OCWD) and water from the Municipal Water District of Orange County imported from northern California and the Colorado River. MWD pumps groundwater from Orange County's groundwater basin using eight wells. The groundwater is replenished by water from the Santa Ana River, and imported water purchased from the Metropolitan Water District of Southern California (MWD 2014). The estimated capacity is more than adequate to meet the current water demand for the project site (MWD 2011).

The Proposed Project would not create the need for new water or wastewater treatment facilities because the Proposed Project would not substantially increase the amount of water needed or wastewater generated compared to the existing conditions at the adjacent Ganahl Lumber store. Once the Proposed Project is built, the existing Ganahl Lumber Store would close. The Proposed Project would have additional water needs resulting from the operation of a store with larger square footage and other new operational needs, including the cleaning of solar panels. However, the Proposed Project would incorporate various water conservation measures that would reduce water requirements. For example, the Proposed Project would be designed to capture rain water from the roof system and store it in five aboveground cisterns for later use in landscape areas. The cisterns could store approximately 100,000 gallons of rainwater.

Any increase in water demand or wastewater generation as a result of the Proposed Project would not be considered substantial because the Proposed Project is consistent with the General Plan land use designation for the project site. General Plans are used to determine future water demands within the service area for Mesa Water (MWD 2011) and are used for issuance of NPDES wastewater discharge permits. Because the Proposed Project is consistent with the General Plan land use designation, the Proposed Project would also be consistent with the water demand anticipated for the project site and would not exceed the capacity of the wastewater treatment plants serving the CMSD. Therefore, a less than significant impact would occur.

(c) **No Impact.** The City is served by the Orange County Flood Control District (OCFCD), which operates and maintains regional and municipal storm drainage facilities. The Proposed Project would not require or result in the construction or expansion of stormwater drainage facilities because the Proposed Project would not substantially increase the amount of stormwater generated compared to the conditions at the existing Ganahl Lumber store. Stormwater runoff either percolates through pervious surfaces on the site or is conveyed to nearby drainage facilities along Bristol Street. The Proposed Project would implement a construction Storm Water Pollution Prevention Plan (SWPPP), which includes Best Management Practices (BMPs). The landscaping plan for the Proposed Project would include permeable pavement and bioswales that would treat stormwater on the site and allow groundwater percolation to occur. No impact would occur.

Mitigation Measures: No mitigation would be required.

(d) **Less than Significant Impact.** As previously stated, Mesa Water District (MWD) provides the City of Costa Mesa, including the project site, with water services. The estimated capacity for MWD is more than adequate to meet the current water demand for the project site (MCWD 2011). The Proposed Project would not substantially increase the demand for water compared to existing conditions at the current Ganahl Lumber Costa Mesa store. As stated in the response to question 3.17 (b) above, the Proposed Project would have a slight increase in operational water needs. However, the Proposed Project would be designed to capture rain water from the roof system and store it in five aboveground cisterns for later use in landscape areas, and the Proposed Project is consistent with the water demand anticipated by the General Plan land use designations for the project site. Therefore, a less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(e) **No Impact.** The Proposed Project would not increase the demand for wastewater treatment because the Proposed Project would not generate additional wastewater over existing conditions at the current Ganahl Lumber store. The Proposed Project would replace the existing Ganahl Lumber store; therefore, the wastewater treatment needs would remain similar. Furthermore, the Proposed Project is consistent with the General Plan land use designation for the project site, and General Plans are used for issuance of NPDES wastewater discharge permits. Please see response to question 3.17 (b) above. No impact would occur.

Mitigation Measures: No mitigation would be required.

(f) **Less than Significant.** The City of Costa Mesa is in the CMSD, which is serviced by CR&R for residential curbside refuse and recycling collection. The CMSD is one of the few agencies in Orange County that offer co-mingled trash and recycling services (CMSD 2014c). Any construction waste would be disposed of at the Frank R. Bowerman Landfill which is owned and operated by OC Waste and Recycling (OCWR). This landfill is a Class III landfill permitted to accept all types of nonhazardous municipal solid waste for disposal, including commercial and construction waste up to approximately 11,500 tons of solid waste per day (tpd). The anticipated closure date for the landfill is 2053 (County of Orange Waste & Recycling May 2013). The small increase in waste as a result of the Proposed Project would not be expected to affect the permitted capacity of such landfills. The Proposed Project would replace the existing Ganahl Lumber store; therefore, the operational waste generation for the Proposed Project would remain similar. Therefore, a less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

(g) **No Impact.** The California Integrated Waste Management Act (Assembly Bill [AB] 939) changed the focus of solid waste management from landfill to diversion strategies such as source reduction, recycling, and composting. The purpose of the diversion strategies is to reduce dependence on landfills for solid waste disposal. AB 939 established mandatory diversion goals of 25 percent by 1995 and 50 percent by 2000. According to the CMSD, Costa Mesa currently has a diversion rate of 57 percent (CMSD 2014d). The City provides curbside recycling for both residential and commercial uses, which counts toward the City's solid waste diversion rate. The City also collects curbside residential green waste, which also counts toward the City's diversion rate. The Proposed Project would comply with existing and future statutes and regulations,

including waste diversion programs mandated by City, State, or federal law. In addition, as discussed above, the Proposed Project would not result in an excessive production of solid waste that would exceed the capacity of the existing landfill serving the project site. Therefore, the Proposed Project would not result in an impact related to federal, State, and local statutes and regulations related to solid wastes.

Mitigation Measures: No mitigation would be required.

(h) **Less than Significant Impact.** In order to comply with the SWPPP, the Proposed Project would be required to implement Best Management Practices (BMPs). In addition, during construction activities, the Proposed Project would be expected to comply with the requirements of the NPDES permit. The Proposed Project would be designed to capture rain water from the roof system and store it in five aboveground cisterns for later use in landscape areas (based on 12 inches of average rainfall per year). The cisterns would be 18 feet in diameter and 10.75 feet high, and could store approximately 100,000 gallons of rainwater. At-grade rain water would be treated and eventually filtered into the ground, replenishing the water table. Native and drought tolerant plants that thrive in extended periods of drought with seasonal floods would be used. However, none of these design features or BMPs would result in significant vectors or odors, and therefore, a less than significant impact would occur.

Mitigation Measures: No mitigation would be required.

3.18 MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife e 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?	☐	☐	☒	☐
(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?)	☐	☐	☒	☐
(c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

3.18.1 Impact Analysis

(a) **Less than Significant.** The project site is located in a fully developed urban environment characterized by a variety of residential, commercial, and transportation land uses. Based on the project description and the preceding responses, development of the Proposed Project does not have the potential to degrade the quality of the natural environment. Additionally, due to the developed nature of the site in an urbanized location, there are no rare or endangered plant or animal species on the project site. Existing landscaping may, however, provide suitable habitat for nesting birds. Disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act (MBTA). In addition, nests and eggs are protected under Fish and Game Code Section 3503. The project site contains two potentially jurisdictional drainage features: the Santa Ana Delhi Channel and a small drainage ditch in the northern portion of the project site. The Proposed Project is not anticipated to remove, fill, or otherwise interrupt the Santa Ana Delhi Channel; however, the drainage ditch may be impacted by construction of the Proposed Project. Condition of Approval B-1 would ensure that the Proposed Project adheres to the MBTA. Condition of Approval B-2 would require the Applicant to coordinate with the United States Army Corps of Engineers (USACE) and the California Department of Fish and Wildlife (CDFW) to verify their jurisdiction and, if necessary, obtain permits related to potential impacts to the drainage ditch. Compliance with Conditions of Approval B-1 and B-2 would reduce potential project impacts related to biological resources to a less than significant level.

It is not anticipated that the Proposed Project would eliminate important examples of the major periods of California history or prehistory because the project site has been previously developed, and the likelihood of encountering significant historic or prehistoric artifacts during grading, excavation, and site development activities would be minimal. However, if any archaeological or paleontological resources are discovered during grading and construction activities, in accordance with Conditions of Approval CR-1 and CR-2, work in the area would cease and deposits would be treated in accordance with federal, State, and local guidelines, including those set forth in California Public Resources Code (PRC) Section 21083.2. In addition, if it is determined that an

archaeological site is a historical resource, the provisions of Section 21084.1 of the PRC and *California Environmental Quality Act (State CEQA) Guidelines* Section 15064.5 would be implemented.

Therefore, with the conditions of approval described in this Initial Study, the Proposed Project would not have a significant impact on fish and wildlife species or their habitat or eliminate important examples of major periods of California history or prehistory.

Conditions of Approval: Refer to Conditions of Approval B-1, and CR-1 and CR-2 above.

Mitigation Measures: No mitigation would be required.

(b) **Less than Significant.** The project site is located in a fully developed urban environment characterized by a variety of residential, commercial, and transportation land uses. In the existing condition, the project site is currently vacant, and does not have any existing structures. The project site has been improved with a concrete wall, asphalt-paved entrance area, and associated landscaping. The majority of the project site is unpaved and covered with gravel. As discussed further in Section 3.10, Land Use, with approval of the requested variances and conditional use permit, the Proposed Project would be consistent with the City of Costa Mesa's (City) land use and zoning designations for the project site.

As discussed above in response to question 3.16 (a), with the addition of cumulative project traffic, all study area intersections would continue to operate at acceptable LOS (LOS D or better) during the a.m. and p.m. peak hours. Therefore, with the addition of project traffic, the Proposed Project was determined to have a less than significant cumulative effect related to traffic and circulation in the area surrounding the project site, and no mitigation would be required.

As discussed above in response to questions 3.7 (a) and (b), the Proposed Project would generate 2,485.46 metric tons per year (MT/yr) of carbon dioxide equivalent (CO_2e) emissions under the cumulative project scenario, which would be below the 3,000 tons per year (tpy) threshold recommended by the South Coast Air Quality Management District (SCAQMD) for commercial development projects. Therefore, the Proposed Project would result in a less than significant impact related to greenhouse gas (GHG) emissions and would not impede or interfere with achieving the State's emission reduction objectives in Assembly Bill (AB) 32 (and Executive Order [EO] S-03-05). As a result, the Proposed Project would not result in or substantially contribute to cumulatively considerable GHG emissions, and no mitigation would be required.

As discussed above in response to question 3.3 (b), the Proposed Project would not exceed any of the established SCAQMD thresholds for pollutant emissions under the cumulative project scenario. Therefore, because the Proposed Project would not exceed the SCAQMD's localized and significance thresholds and would be consistent with the SCAQMD Air Quality Management Plan (AQMP), the Proposed Project would not result in cumulative air quality impacts that would be considered cumulative considerable, and no mitigation would be required.

The Proposed Project would not have any impacts related to agricultural and mineral resources and would, therefore, not have any cumulatively significant impacts related to these topics.

Impacts from the Proposed Project related to aesthetics, biological resources, cultural resources, geology and soils, hazards or hazardous materials, hydrology and water quality, noise, public services, recreation, or utilities/service systems are less than significant or can be reduced to a less than significant level with mitigation. Therefore, the Proposed Project would not cumulatively contribute to significant impacts related to any of these environmental topics.

In summary, the Proposed Project would rely on and can be accommodated by the existing road system, public services, and utilities. Therefore, impacts from the Proposed Project would not be cumulatively considerable.

Mitigation Measures: No mitigation would be required.

(c) **Less than Significant With Mitigation Incorporated.** The project site is located in a fully developed urban environment characterized by a variety of residential, commercial, and transportation land uses. In the existing condition, the project site is currently vacant, and does not have any existing structures. The project site has been improved with a concrete wall, asphalt-paved entrance area, and associated landscaping. The majority of the project site is unpaved and covered with gravel. As discussed further in Section 3.4, Air Quality, the Proposed Project would not result in an inconsistency with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP), violate any air quality standards, contribute to an air quality violation or expose sensitive receptors to an exceedance of local emissions thresholds. ,. As described in Section 3.12, Noise, the Proposed Project is not expected to result in excessive noise or vibration levels or result in a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project site that could not be mitigated to a less than significant level. As described in Section 3.6, Geology and Soils, the Proposed Project would not result in any impacts related to geologic hazards that could not be mitigated to a less than significant level. Similarly, as stated in Section 3.8,Hazards and Hazardous Materials, implementation of the Proposed Project would not result in any impacts related to hazards or hazardous materials that could not be mitigated to a less than significant level. Therefore impacts related to the Proposed Project would be less than significant.

Mitigation Measures: Refer to Mitigation Measures GEO-1, HAZ-1, HAZ-2, HAZ-3, and NOSE-1.

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4.0 MITIGATION MONITORING AND REPORTING PROGRAM

4.1 MITIGATION MONITORING REQUIREMENTS

Public Resources Code (PRC) Section 21081.6 (enacted by the passage of Assembly Bill (AB) 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a Responsible Agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the Lead Agency or a Responsible Agency, prepare and submit a proposed reporting or monitoring program.
- The Lead Agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based. A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a draft Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND), a Responsible Agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the Lead Agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the Responsible Agency or agency having jurisdiction over natural resources affected by the project, or refer the Lead Agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a Lead Agency by a Responsible Agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory authority of, and definitions applicable to, that agency. Compliance or noncompliance by a Responsible Agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the Responsible Agency or agency having jurisdiction over natural resources affected by a project, or the authority of the Lead Agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

4.2 MITIGATION MONITORING PROCEDURES

The mitigation monitoring and reporting program has been prepared in compliance with PRC Section 21081.6. It describes the requirements and procedures to be followed by the City of Costa Mesa to ensure that all standard conditions, conditions of approval, and mitigation measures adopted as part of the Proposed Project would be carried out as described in this Initial Study (IS)/Mitigated Negative Declaration (MND). Table 4.A lists each of the standard conditions, conditions of approval, and mitigation measures specified in this IS/MND and identifies the party or parties responsible for implementation and monitoring of each condition or measure.

Table 4.A: Mitigation and Monitoring Reporting Program

		Timing of Mitigation	Responsible Party
Standard Conditions, Conditions of Approval, Best Management Practices, and Requirements			
3.1 Aesthetics			
No standard conditions, conditions of approval, or best management practices related to aesthetics would be required.			
3.2 Agricultural & Forest Resources			
No standard conditions, conditions of approval, or best management practices related to agriculture or forest resources would be required.			
3.3 Air Quality			
No standard conditions, conditions of approval, or best management practices related to air quality would be required.			
3.4 Biological Resources			
B-1:	**Compliance with Migratory Bird Treaty Act.** If construction activities occur within the bird breeding season (February 15 through August 31), the Applicant (or its contractor) shall retain a qualified biologist to conduct a pre-construction nesting bird survey no more than 30 days prior to the start of construction. The nesting survey shall include the Project site and areas immediately adjacent to the site that could potentially be affected by Project activities such as noise, human activity, and dust, etc. If active bird nests are found within 100 feet of the designated construction area on the project site, the qualified biologist will establish an appropriate buffer zone around the active nests, typically a 250-foot radius for songbirds and a 500-foot radius for raptors. Project activities shall be avoided within the buffer zone until the nest is deemed no longer active by the biologist. Weekly nesting surveys and biological monitoring may be necessary if nesting birds are found on the project site. Prior to commencement of grading activities and issuance of any building permits, the City of Costa Mesa Director of Community Development, or designee, shall verify that all project grading and construction plans include specific documentation regarding the Migratory Bird Treaty Act (MBTA) requirements for a nesting bird survey should construction or grading occur from February 15 through August 31, that preconstruction surveys have been completed and the results reviewed by staff, and that the appropriate buffers (if needed) are noted on the plans and established in the field with orange snow fencing.	Prior to the commencement of grading activities	City of Costa Mesa Director of Community Development, or designee
B-2:	**Permitting for Drainage Impacts.** Prior to the commencement of grading activities that may result in the placement of fill material into the potentially jurisdictional drainage feature on the northern portion of the project site, the Applicant shall prepare and submit to the United States Army Corps of Engineers (USACE) for verification a "Preliminary Delineation Report for Water of the United States" and a Streambed Alteration Notification package to the California Department of Fish and Wildlife (CDFW) for the drainage feature. If these agencies determine that the feature is not regulated under their jurisdiction, then no further mitigation is necessary. However, if the USACE considers the feature to be jurisdictional, then a Clean Water Act Section 404 permit shall be obtained from the USACE, and any permit conditions shall be agreed to, prior to the start of grading activities in the affected area. If the CDFW determines that the drainage is a regulated "streambed," then a Streambed Alteration Agreement shall be	Prior to the commencement of grading activities	United States Army Corps of Engineers; California Department of Fish and Wildlife; Santa Ana Regional Water Quality Control Board

Table 4.A: Mitigation and Monitoring Reporting Program

		Timing of Mitigation	Responsible Party
	entered into with the CDFW and any associated conditions shall be agreed to prior to the start of grading activities in the affected area. If the USACE considers the feature to be jurisdictional, the Applicant shall obtain a Water Quality Certification or waiver pursuant to Section 401 of the CWA from the Santa Ana Regional Water Quality Control Board prior to the start of grading activities in the affected area.		
3.5 Cultural Resources			
CR-1:	**Archaeological Monitors.** Prior to issuance of grading permits, and in adherence to the recommendations of the cultural resources survey, the Applicant shall retain a qualified archaeological monitor, subject to review and approval by the City of Costa Mesa (City) Community Development Director, or designee. This monitor shall be present at the pregrade conference in order to explain the cultural mitigation measures associated with the Proposed Project. The monitor, in conjunction with the City and the Applicant will prepare a plan that includes: (1) a description of circumstances that would result in the halting of work at the project site (e.g., what is considered a "significant" archaeological site); (2) a description of procedures for halting work on site and notification procedures; and (3) a description of monitoring reporting procedures. If any significant historical resources, archaeological resources, or human remains are found during monitoring, work shall stop within the immediate vicinity (precise area to be determined by the archaeologist in the field) of the resource until such time as the resource can be evaluated by an archaeologist and any other appropriate individuals. Project personnel shall not collect or move any archaeological materials or human remains and associated materials. To the extent feasible, project activities shall avoid these deposits. Where avoidance is not feasible, the archaeological deposits shall be evaluated for their eligibility for listing in the California Register of Historic Places. If the deposits are not eligible, avoidance is not necessary. If the deposits are eligible, adverse effects on the deposits must be avoided, or such effects must be mitigated. Mitigation can include, but is not necessarily limited to, the following: excavation of the deposit in accordance with a data recovery plan (see California Code of Regulations Title 4(3) Section 5126.4(b)(3)(C)) and standard archaeological field methods and procedures; laboratory and technical analyses of recovered archaeological materials; production of a report detailing the methods, findings, and significance of the archaeological site and associated materials; curation of archaeological materials at an appropriate facility for future research and/or display; an interpretive display of recovered archaeological materials at a local school, museum, or library; and public lectures at local schools and/or historical societies on the findings and significance of the site and recovered archaeological materials.	Prior to the issuance of grading permits	City of Costa Mesa Director of Community Development Department, or designee

Table 4.A: Mitigation and Monitoring Reporting Program

		Timing of Mitigation	Responsible Party
CR-2:	**Paleontological Resources Impact Mitigation Program.** If excavation activities associated with the Proposed Project are expected to extend below 10 feet, the Applicant shall retain a qualified paleontologist, subject to the review and approval of the City of Costa Mesa's (City) Community Development Director, or designee, to prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Proposed Project prior to issuance of any grading permits. The PRIMP shall be consistent with the guidelines of the Society of Vertebrate Paleontology (SVP) and shall include, but not be limited to, the following: • The paleontologist, or his/her representative, shall attend a preconstruction meeting. • A qualified paleontological monitor working under the direction of an Orange County certified paleontologist shall "spot check" grading within the project site. Initially, spot checks are recommended for 2 to 3 hours twice per week during grading. If fossil resources are noted during the spot check, the monitoring level shall be increased to full time for the remaining duration of the grading. • In the event that paleontological resources are encountered when a paleontological monitor is not present, work in the immediate area of the find shall be redirected and the paleontologist contacted to assess the find for scientific significance. The paleontologist shall make recommendations as to whether monitoring shall be required in these sediments on a full-time basis. • Collected resources shall be prepared to the point of identification and permanent preservation. This includes washing and picking of mass samples to recover small vertebrate and invertebrate fossils and removal of surplus sediment around larger specimens to reduce the storage volume for the repository and the storage cost for the Applicant. • Any collected resources shall be cataloged and curated into the permanent collections of an accredited scientific institution. At the conclusion of the monitoring program, a report of findings with an appended inventory of specimens shall be prepared. When submitted to the City, the report and inventory shall signify completion of the program to mitigate impacts to paleontological resources.	Prior to the issuance of grading permits	City of Costa Mesa Director of Community Development Department, or designee
CR-3:	**Human Remains.** If human remains of any kind are found during construction, the requirements of California Environmental Quality Act (CEQA) Guidelines Section 15064.5(e) and Assembly Bill (AB) 2641 shall be followed. According to these requirements, all construction activities must cease immediately and the Orange County Coroner and a qualified archaeologist must be notified. The Coroner will examine the remains and determine the next appropriate action based on his or her findings. If the Coroner determines the remains to be of	In the event of the accidental discovery or recognition of any human remains in any location on the project site during excavation	City of Costa Mesa Director of Community Development Department, or designee

Table 4.A: Mitigation and Monitoring Reporting Program

		Timing of Mitigation	Responsible Party
	Native American origin, he or she will notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will then identify the most likely descendants (MLD) to be consulted regarding treatment and/or reburial of the remains. If an MLD cannot be identified, or the MLD fails to make a recommendation regarding the treatment of the remains within 48 hours after gaining access to them, the Native American human remains and associated grave goods shall be buried with appropriate dignity on the property in a location not subject to further subsurface disturbance.	or construction activities	
3.6 Geology and Soils			
No standard conditions, conditions of approval, or best management practices related to geology and soils would be required.			
3.7 Greenhouse Gas Emissions			
No standard conditions, conditions of approval, or best management practices related to greenhouse gas emissions would be required.			
3.8 Hazards and Hazardous Materials			
Refer to Standard Conditions WQ-1 and WQ-2 below.			
3.9 Hydrology and Water Quality			
WQ-1:	**Construction General Permit.** Prior to issuance of a grading permit, the Applicant shall demonstrate to the City of Costa Mesa (City) Public Works Department that coverage has been obtained under California's General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) by providing a copy of the Notice of Intent (NOI) submitted to the State Water Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) Number or other proof of filing. A copy of the current Storm Water Pollution Prevention Program (SWPPP) required by the General Permit shall be kept at the project site and be available for review by City representatives upon request.	Prior to the issuance of a grading permit	City of Costa Mesa Public Works Director, or designee
WQ-2:	**Final Water Quality Management Plan.** Prior to issuance of a grading permit, the Applicant shall submit a Final Water Quality Management Plan (WQMP) to the City Public Works Department for review and approval. Both Source Control best management practices (BMPs) and Site Design BMPs designed to reduce impacts to water quality from operation of the Proposed Project shall be identified in the Final WQMP.	Prior to the issuance of a grading permit	City of Costa Mesa Public Works Director, or designee
3.10 Land Use/Planning			
No standard conditions, conditions of approval, or best management practices related to land use and planning would be required.			
3.11 Mineral Resources			
No standard conditions, conditions of approval, or best management practices related to mineral resources would be required.			

Table 4.A: Mitigation and Monitoring Reporting Program

	Timing of Mitigation	Responsible Party
3.12 Noise		
NOISE-1: **Short-Term Construction Related Noise Impacts.** The following standard conditions are required of all development within the City of Costa Mesa (City) and would reduce short-term construction related noise impacts resulting from the Proposed Project: • The Applicant's construction contractor shall limit all construction-related activities to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays.	During construction activities	City of Costa Mesa Director of Community Development, or designee
3.13 Population and Housing		
No standard conditions, conditions of approval, or best management practices related to population and housing would be required.		
3.14 Public Services and Utilities		
No standard conditions, conditions of approval, or best management practices related to public services and utilities would be required.		
3.15 Recreation		
No standard conditions, conditions of approval, or best management practices related to recreation would be required.		
3.16 Transportation/Traffic		
No standard conditions, conditions of approval, or best management practices related to transportation/traffic would be required.		
3.17 Utilities/Service Systems		
No standard conditions, conditions of approval, or best management practices related to utilities/service systems would be required.		
Mitigation Measures		
3.1 Aesthetics		
The Proposed Project would not result in significant adverse impacts related to aesthetics. No mitigation would be required.		
3.2 Agricultural & Forest Resources		
The Proposed Project would not result in significant adverse impacts related to agriculture or forest resources. No mitigation would be required.		
3.3 Air Quality		
The Proposed Project would not result in significant adverse impacts related to air quality. No mitigation would be required.		
3.4 Biological Resources		
The Proposed Project would not result in significant adverse impacts related to biological resources. No mitigation would be required.		
3.5 Cultural Resources		
The Proposed Project would not result in significant adverse impacts related to cultural resources. No mitigation would be required.		

Table 4.A: Mitigation and Monitoring Reporting Program

		Timing of Mitigation	Responsible Party
3.6 Geology and Soils			
GEO-1:	**Incorporation of and Compliance with the Recommendations in the Geotechnical Report.** During project construction activities, the City of Costa Mesa (City)'s Community Development Director, Director of Public Works, or designee, shall ensure that all grading operations and construction are conducted in conformance with the recommendations included in the Geotechnical Report prepared for the Proposed Project that has been prepared by G.A. Nicoll., titled *Geotechnical Investigation Report* (June 13, 2014). The Applicant shall require the project geotechnical consultant to assess whether the requirements in the *Preliminary Geotechnical Investigation* need to be modified or refined to address any changes in the project that occur prior to the start of grading. If the project geotechnical consultant identifies modifications or refinements to the requirements, the Applicant shall require appropriate changes to the final project design and specifications and shall submit any revised geotechnical reports to the Land Development Section of the Engineering Division, or designee, for approval prior to issuance of any grading or construction permits. The Development Review Section of the Engineering Division, or designee, shall review grading plans prior to the start of grading to verify that the requirements developed during the geotechnical design evaluation have been appropriately incorporated into the project plans. Design, grading, and construction shall be performed in accordance with the requirements of the City's Building Code and the California Building Code (CBC) applicable at the time of grading, as well as the recommendations of the project geotechnical consultant as summarized in a final report subject to review by the City's Building Official, or designee, prior to the start of grading activities. On-site inspection during grading shall be conducted by the project geotechnical consultant and the Development Review Section of the Engineering Division to ensure compliance with geotechnical specifications as incorporated into project plans.	Prior to the commencement of grading activities	City of Costa Mesa Building Official, or designee
3.7 Greenhouse Gas Emissions			
The Proposed Project would not result in significant adverse impacts related to greenhouse gas emissions. No mitigation would be required.			
3.8 Hazards and Hazardous Materials			
HAZ 1:	**Contingency Plan.** Prior to commencement of grading activities, the Director of the Orange County Environmental Health Division, or designee, shall review and approve a contingency plan that addresses the procedures to be followed should on-site unknown hazards or hazardous substances be encountered during demolition and construction activities. The plan shall indicate that if construction workers encounter underground tanks, gases, odors, uncontained spills, or other unidentified substances, the contractor shall stop work, cordon off the affected area, and notify the Costa Mesa Fire Department (CMFD). The CMFD responder	Prior to the commencement of grading activities	Director of the Orange County Environmental Health Division, or designee

Table 4.A: Mitigation and Monitoring Reporting Program

		Timing of Mitigation	Responsible Party
	shall determine the next steps regarding possible site evacuation, sampling, and disposal of the substance consistent with local, State, and federal regulations.		
HAZ-2:	**Protection Against Landfill Gas Hazards.** Prior to the issuance of any grading permits, the Applicant shall conduct a soil gas investigation on the project site in accordance with the Orange County Fire Authority's Combustible Gas Hazard Mitigation Guidance to evaluate whether combustible landfill gas concerns exist on the project site. If the investigation concludes that such concerns do not exist, no further mitigation is necessary. If the investigation concludes that combustible landfill gases are present beneath the project site, the Applicant shall coordinate with the Orange County Solid Waste Local Enforcement Agency (LEA) to determine appropriate mitigation to protect the Proposed Project's structures from combustible landfill gases, which may include the installation of systems designed to protect against the accumulation of methane beneath structures, which may include passive ventilation systems, flexible building membrane liners, landfill gas alarms, or other measures listed per Section 20939, Title 27 California Code of Regulations in accordance with LEA recommendations. If mitigation is required, the City of Costa Mesa's Building Official, or designee, shall review the building and grading plans prior to the start of grading to verify that the mitigation developed as a result of the combustible landfill gas evaluation has been appropriately incorporated into the project plans. On-site inspection during grading and construction shall be conducted by the City of Costa Mesa's Building Official, or designee, to ensure compliance with the mitigation specifications, if any are required to be incorporated into project plans.	Prior to the issuance of any grading permits	Director of the Orange County Solid Waste Local Enforcement Agency, or designee; City of Costa Mesa Building Official, or designee
HAZ-3:	**Construction Staging and Traffic Control Plan.** Prior to the issuance of any grading permits, the Applicant (or its contractor) shall prepare a Construction Staging and Traffic Control Plan for approval by the City of Costa Mesa (City) Transportation Services Manager, or designee, to ensure proper access to residences and businesses in the area by emergency vehicles during construction and to maintain traffic flow prior to any lane closures. The Construction Staging and Traffic Control Plan would also include the name and phone number of a contact person who can be reached 24 hours a day regarding construction traffic complaints or emergency situations. In addition, the Construction Staging and Traffic Control Plan shall take into account and be coordinated with other Construction Staging and Traffic Control Plans that are in effect or have been proposed for other projects in the City of Costa Mesa. The Construction Staging and Traffic Control Plan shall include, but not be limited to, the following: • All emergency access to the project site and adjacent areas shall be kept clear and unobstructed during all phases of construction. Flag persons shall be provided in adequate	Prior to the issuance of any grading permits	City of Costa Mesa Transportation Services Manager, or designee

Table 4.A: Mitigation and Monitoring Reporting Program

	Timing of Mitigation	Responsible Party
numbers to minimize impacts to traffic flow and to ensure safe access into and out of the site. • Flag persons shall be trained to assist in emergency response by restricting or controlling traffic movements that could interfere with emergency vehicle access. • Construction vehicles, including construction personnel vehicles shall not park on public streets • Construction vehicles shall not stage or queue where they would interfere with pedestrian and vehicular traffic or block access to nearby businesses or residential areas. If feasible, any traffic lane closures would be limited to off-peak traffic periods, as approved by the City Transportation Services Department.		
3.9 Hydrology and Water Quality		
The Proposed Project would not result in significant adverse impacts related to hydrology and water quality. No mitigation would be required.		
3.10 Land Use/Planning		
The Proposed Project would not result in significant adverse impacts related to land use/planning. No mitigation would be required.		
3.11 Mineral Resources		
The Proposed Project would not result in significant adverse impacts related to mineral resources. No mitigation would be required.		
3.12 Noise		
NOISE-1: **Noise Reduction Features.** Prior to the issuance of building permits for Building A, the Applicant shall submit the building plans for review and approval by the City of Costa Mesa (City) Building Official, or designee, to ensure the building will be designed with closed windows and an air conditioning system to reduce noise levels associated with traffic noise to an acceptable level.	Prior to the issuance of permits for Building A	City of Costa Mesa (City) Building Official, or designee
3.13 Population and Housing		
The Proposed Project would not result in significant adverse impacts related to population or housing. No mitigation would be required.		
3.14 Public Services and Utilities		
The Proposed Project would not result in significant adverse impacts related to public services or utilities. No mitigation would be required.		
3.15 Recreation		
The Proposed Project would not result in significant adverse impacts related to recreation. No mitigation would be required.		
3.16 Transportation/Traffic		
Refer to Mitigation Measure HAZ-3 above.		
3.17 Utilities/Service Systems		
The Proposed Project would not result in significant adverse impacts related to utilities/service systems. No mitigation would be required.		

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