Eilar Associates, Inc.
Acoustical and Environmental Consulting Services

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August 5, 2022

Job # S190512

David Carattini
270 North El Camino Real, Suite 523
Encinitas, California 92024

Subject: Response to Comments for 6 Carat Carwash (Record ID: PDS2022-MUP-22-003)

This letter is in response to County of San Diego staff review comments for the 6 Carat Carwash project. Comments are found in the County of San Diego's review, dated July 27, 2022, and this letter references the location of each comment response or requested changes in the revised report.

Italics are added to indicate County of San Diego staff comments.

County of San Diego Comments:

13-1: Staff has reviewed the Acoustical Analysis Report for Automated Car Wash dated July 30, 2019 prepared by Eilar Associates, Inc. and submitted to the County on March 16, 2022. The report requires revisions as detailed in the following comments.

13-2: Section 1.1, paragraph 2, What about traffic noise from cars to and from site? Even if not generating the most noise, it should be mentioned.

RESPONSE: Section 1.1 has been revised to state that project-generated traffic noise impacts have been addressed and are detailed in Section 3.2, Table 4 of the revised report.

13-3: Section 1.3.1, Table 1, There is no difference between the calculated noise level and the modeled noise level. Should this cell be zero? Please review/confirm numbers.

RESPONSE: The difference between the calculated noise level and the modeled noise level shown in Table 1 should be zero. This typographical error was corrected in the revised report.

13-4: Section 3.2.2, paragraph 1, According to the plot plan dated 2/22, there is an acoustical tunnel proposed at the west opening of the car wash. Is this the same thing as what is described here for mitigation? If so, it becomes a project design feature.

RESPONSE: The acoustical tunnel shown in project plans was implemented as a result of the original acoustical report. The acoustical report has been revised to show this acoustical tunnel as the current acoustical design instead of mitigation. Calculations showing this current design are shown in Section 3.2.1.

13-5: Section 4.0, paragraph 2, Please confirm that since this report was prepared in 2019 that the car wash equipment proposed has not changed.

RESPONSE: The proposed car wash equipment has not changed since the original report preparation in 2019. No changes to the report are necessary.

If you have any questions or require additional information, please feel free to contact Mo Ouwenga at 760-738-5570 or mouwenga@eilarassociates.com.

Mo Ouwenga, INCE
Acoustical Consultant

Amy Hool, INCE
President/CEO

ACOUSTICAL ANALYSIS REPORT

Automated Car Wash
San Diego County Record ID: PDS2022-MUP-22-003

Lead Agency:

County of San Diego
Planning and Development Services
Contact: Souphie Sakdarak
5510 Overland Avenue, Suite 310
San Diego, California 92123
Phone: 858-495-5214

Preparer:

Amy L. Hool
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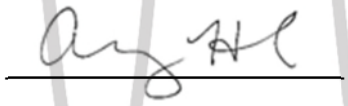


Project Proponent:

6 Carat Enterprise, Inc.
Attention: David Carattini
270 North El Camino Real, #523
Encinitas, California 92024
Phone: 760-822-0004

Job # S190512

Original Report: July 30, 2019
Revised: August 5, 2022

GLOSSARY OF TERMS AND ACRONYMS

Ambient Sound: The combination of all near and far sounds in a given environment, none of which is particularly dominant.

Attenuation: The reduction in sound pressure level as sound is transmitted from one point to another.

Average Sound Level (L_{EQ}): Also known as equivalent sound level and expressed in dBA. The A-weighted sound level of a steady state sound which has the same sound energy as that contained in the actual time-varying sound being measured over a specific time period.

A-weighted Sound Level (dBA): Designed to approximate the response of the human ear to sound. A sound pressure level which has been filtered or weighted to quantitatively reduce the effect of low frequency noise.

Community Noise Equivalent Level (CNEL): The 24-hour weighted average noise level calculated as A-weighted sound pressure levels with different weighting factors for the noise levels occurring during the evening and nighttime periods. This weighting is applied to account for an individual's increased sensitivity to noise during these times. Sound levels during evening hours of 7 p.m. to 10 p.m. have an added 5 dB weighting, and sound levels during nighttime hours of 10 p.m. to 7 a.m. have an added 10 dB weighting.

Day-Night Average Sound Level (L_{DN}): A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to the sound levels occurring during nighttime hours (10 p.m. to 7 a.m.).

Decibel (dB): The primary unit of sound measurement; used to quantify both sound pressure level and sound power level. In acoustics, equal to ten times the logarithm of the ratio of one sound and a lower-intensity reference sound.

Frequency: The number of oscillations per second; generally expressed in hertz (Hz) or cycles per second (cps).

Insertion Loss: The sound level reduction at a receiver that occurs when a sound-attenuating device, such as a silencer or barrier, is inserted in the path between source and receiver. Expressed in decibels at a specific frequency octave band.

Sound Level Meter: An instrument, usually handheld, that is used to measure sound pressure levels with averaging capabilities and standard frequency-weighting.

Sound Pressure Level (L_p or SPL): The level of sound energy, measured in dB, at a specific location. In order to be meaningful, a sound pressure level measurement must be accompanied by a reference distance at which the sound source was measured

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The proposed project, Automated Car Wash, consists of the construction of a new car wash facility with an automatic car wash tunnel and vacuum stations. A convenience store and gas station will also be located on site, and will be serviced by two rooftop HVAC units. The subject property is located at 28874 Valley Center Road in the community of Valley Center, County of San Diego, California.

The purpose of this report is to assess noise impacts from the equipment at the facility and to determine if mitigation is necessary and feasible to reduce project-related property line noise impacts to comply with applicable noise limits. Noise limits specified within the County of San Diego Noise Ordinance must be met at neighboring property lines.

Based on the project information available, calculations show that with the current design as shown in the project plans, project-generated noise levels are expected to meet applicable noise limits at all surrounding property lines. Additionally, project-generated traffic volumes will not have a significant effect on the noise environment.

1.0 INTRODUCTION

This acoustical analysis report is submitted to satisfy the noise requirements of the County of San Diego. Its purpose is to assess noise impacts from on-site project related mechanical noise sources, and to determine if mitigation is necessary to reduce the noise impacts to meet the applicable noise limits of the County of San Diego. No other project-generated noise source is expected to be significant.

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting, abbreviated "dBA," to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol "L_{EQ}." Unless a different time period is specified, "L_{EQ}" is implied to mean a period of one hour. Some of the data may also be presented as octave-band-filtered and/or A-octave-band-filtered data, which are a series of sound spectra centered about each stated frequency, with half of the bandwidth above and half of the bandwidth below each stated frequency. This data is typically used for machinery noise analysis and barrier-effectiveness calculations.

1.1 Project Description

The proposed project, Automated Car Wash, consists of the construction of a new car wash facility with an automatic car wash tunnel and vacuum stations. A convenience store and gas station will also be located on site, and will be serviced by two rooftop HVAC units.

The proposed car wash equipment is the primary focus of this analysis, as it is expected to generate the most noise on site; however, HVAC equipment noise impacts were also evaluated in this analysis. The vacuum equipment is proposed to be completely enclosed within the mechanical room and the individual vacuum stations are not expected to generate a significant level of noise. Vacuum noise levels are expected to be negligent in comparison to the car wash equipment; therefore, they were not evaluated. Project-generated traffic noise impacts were also evaluated to determine if project-generated traffic will have a significant impact on the noise environment. For additional project details and equipment positioning, please refer to the project plans, provided in Appendix A.

1.2 Environmental Settings and Existing Conditions

1.2.1 Project Location

The subject property is located at 28874 Valley Center Road in the community of Valley Center, County of San Diego, California. The Assessor's Parcel Number (APN) is 188-231-34-00. The site is currently vacant and is zoned C30. Surrounding properties to the north and east also zoned C30. The properties to the northwest and southwest (across Miller Road) are zoned RR and C40, respectively. The property to the south (across Valley Center Road) is zoned C36.

For a graphical representation of the site, please refer to the Vicinity Map, Assessor's Parcel Map, Satellite Aerial Photograph, and Topographic Map provided as Figures 1 through 4, respectively.

1.3 Methodology

1.3.1 Cadna Noise Modeling

Modeling of the outdoor noise environment to determine equipment noise impacts is accomplished using Cadna Version 2022 (see reference), which is a model-based computer program developed by DataKustik for predicting noise impacts in a wide variety of conditions. Cadna (Computer Aided Noise Abatement) assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project information such as noise source data, barriers, structures, and topography to create a detailed model and uses the most up-to-date calculation standards to predict outdoor noise impacts.

Although Cadna noise impacts can typically be validated by using manual calculations, this site in particular has a more complex configuration that would be extremely difficult to calculate without noise modeling software such as Cadna. The primary source of noise at the nearest affected property line receiver to the west (across Miller Road) is expected to be noise emanating from the western opening of the car wash tunnel. Due to the complexity of the tunnel structure and topography, manual calculations at the west property line would be complex and unlikely to match the results of the Cadna model. For this reason, verification calculations have been performed in Cadna without barriers or topography to calculate equipment noise levels using simple distance attenuation. These combined values were compared to those predicted by Cadna.

The manually calculated values were found match those predicted by the basic Cadna model exactly. This data is summarized in Table 1 and Cadna data sheets are provided in Appendix B. Actual modeled noise levels presented in the analysis section of this report incorporate design features that are expected to impact noise propagation at the site.

Table 1. Calculated Noise Levels for Model Comparison

Noise Sources	Receiver Location	Distance from Sources	Calculated Noise Level[1] (dBA)	Cadna Model Noise Level[2] (dBA)	Difference (dB)
Tunnel Equipment & AC Units	West of tunnel equipment (across Miller Road)	116' to tunnel equipment, 132' and 189' to AC units	67.0	67.0	0.0

[1]Calculated as attenuation by distance and barrier insertion loss (see Section 1.3.2)
[2]As predicted by Cadna model

1.3.2 Formulas and Calculations

Decibel Addition

To determine the combined logarithmic noise level of two known noise source levels, the values are converted to the base values, added together, and then converted back to the final logarithmic value, using the following formula:

$$L_C = 10\log\left(10^{L1/10} + 10^{L2/10} + 10^{LN/10}\right)$$

where L_C = the combined noise level (dB), and
L_N = the individual noise sources (dB).

This procedure is also valid when used successively for each added noise source beyond the first two. The reverse procedure can be used to estimate the contribution of one source when the contribution of another concurrent source is known and the combined noise level is known. These methods can be used for L_{EQ} or other metrics (such as L_{DN} or CNEL), as long as the same metric is used for all components.

Attenuation Due To Distance

Attenuation due to distance is calculated by the equation:

$$SPL_2 = SPL_1 - 20\log\left(\frac{D_2}{D_1}\right)$$

where SPL_1 = Known sound pressure level at known distance,
SPL_2 = Calculated sound pressure level at distance,
D_1 = Distance from source to location of known sound pressure level, and
D_2 = Distance from source to location of calculated sound pressure level.

This is identical to the more commonly used reference of 6 dB reduction for every doubling of distance. This equation does not take into account reduction in noise due to atmospheric absorption.

Project-Generated Traffic Noise Impacts

Changes in traffic noise levels can be predicted by inputting the ratio of the two scenarios into the following logarithmic equation:

$$\Delta = 10\log(V2/V1)$$

where: Δ= Change in sound energy,
V1 = original or existing traffic volume, and
V2 = future or cumulative traffic volume.

2.0 NOISE-SENSITIVE LAND USES AFFECTED BY AIRBORNE NOISE

This section is designated for projects with noise-sensitive land uses. The proposed project is a commercial facility that does not include any residential facility, nor does it include any other noise-sensitive space (i.e. school, library, place of worship, etc.). For this reason, exterior noise impacts to the site resulting from traffic noise or other environmental noise sources were not evaluated.

3.0 PROJECT-GENERATED AIRBORNE NOISE

3.1 Guidelines for Determination of Significance

The County of San Diego Municipal Code states that noise levels from stationary sources shall not exceed 50 dBA between the hours of 7 a.m. and 10 p.m. and 45 dBA between the hours of 10 p.m. and 7 a.m. at residential properties zoned RR, and shall not exceed 60 dBA between the hours of 7 a.m. and 10 p.m. and 55 dBA between the hours of 10 p.m. and 7 a.m. at all commercial properties. Noise from the operation of the proposed car wash and air conditioning units at this site should meet these guidelines. As the proposed equipment is expected to operate only during daytime hours, operational noise levels should not exceed 50 dBA at any surrounding residential property line and 60 dBA at any surrounding commercial property line. Additionally, direct noise impacts can be determined by comparing existing traffic versus existing traffic plus project-generated traffic. If project-generated traffic more than doubles the existing sound energy (an increase of 3 dB), this is considered to be a direct noise impact. Pertinent sections of the County of San Diego Noise Ordinance are provided in Appendix C.

3.2 Potential Operational Noise Impacts

The future noise environment in the vicinity of the project site is anticipated to consist of noise created by the proposed car wash equipment and rooftop air conditioning units. The vacuum equipment is proposed to be completely enclosed within the mechanical room and the individual vacuum stations are not expected to generate a significant level of noise. Vacuum noise levels are expected to be negligent in comparison to the car wash equipment; therefore, they were not evaluated. Project-generated traffic noise impacts were also evaluated. No other equipment on site is anticipated to generate significant levels of noise.

The car wash equipment noise is expected to be primarily a result of the tunnel dryer equipment. The dryer units proposed to be installed in the tunnel will be the 15HP Tech 21 Dryers, manufactured by MacNeil. The dryers will be equipped with the PowerLock noise-reducing air valves, and the PowerLocks will remain in the “closed” position. There are a total of thirteen (13) dryers proposed. The sound power level for each 15HP Tech 21 Dryer is shown in Table 2. Please refer to Appendix D: Manufacturer Data Sheets for additional information.

The two rooftop HVAC units will supply air conditioning to the convenience store. Detailed rooftop equipment information was not available at the time this study was prepared; however, the rooftop units are expected to be equivalent to the 48HCA05 (4-ton) unit, manufactured by Carrier. The sound power level for each 48HCA05 unit is shown in Table 2. Please refer to Appendix D: Manufacturer Data Sheets for additional information.

Table 2. Sound Power Level of Proposed Mechanical Equipment									
Source	Sound Power Level at Octave Band Frequency (dB)								Sound Power Total (dBA)
	63	125	250	500	1K	2K	4K	8K	
MacNeil 15HP Tech 21 – PowerLock Closed	90.5	94.5	91.4	91.9	93.0	91.1	88.6	85.4	97.7
Carrier 48HCA05	84.7	83.6	77.1	74.6	72.3	68.3	64.7	60.9	77.6

Noise levels of the proposed tunnel equipment and AC units were calculated using Cadna at surrounding property lines considering the proposed equipment and proposed tunnel. All equipment was evaluated with a 100% duty cycle for a worst-case analysis. Receivers were placed at a height of five feet above their respective grade. Results of this analysis are shown in Table 3. The distances listed in the table represent the distance from the receiver to the westernmost proposed tunnel equipment. Equipment noise contours and receiver locations are also shown in Figure 5, and additional information can be found in Appendix B: Cadna Analysis Data and Results.

Table 3. Equipment Noise Impact Levels – Current Design				
Receiver Number	Receiver Location	Approximate Distance to Tunnel Equipment (ft)	Noise Limit (dBA)	Equipment Noise Level (dBA)
R1	Northwest (across Miller Road)	119	50	46.2
R2	Northwest (across Miller Road)	273	50	42.2
C3	West (across Miller Road)	116	60	44.3
C4	West (across Miller Road)	149	60	46.8
C5	West (across Miller Road)	216	60	43.3
C6	South (across Valley Center Road)	301	60	40.2
C7	East	322	60	41.6
C8	East	279	60	46.1
C9	East	266	60	50.9

As shown above, with the currently proposed tunnel exit, equipment noise levels are expected to meet applicable noise limits of the County of San Diego at all surrounding property lines. In order to be effective, the barrier and canopy must be constructed to the standards listed below.

The sound barrier should be solid and constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, with no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least 7/8-inch thick or have a surface density of at least 3½ pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic may be used, if it is desirable to preserve a view. Sheet metal of 18-gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. If an access door is required, the access door should be equipped with appropriate acoustical seals. By

equipping the door with all-around weather-tight seals and an airtight threshold closure at the bottom, a loss of up to 10 STC points can be prevented. The glass and CMU barriers proposed in project plans are expected to meet these requirements.

Additionally, in order to determine whether any direct noise impacts will be experienced at off-site receivers from project-generated traffic, the increase in noise level due to project traffic was evaluated. According to SANDAG Transportation Forecast Information Center (see reference), the existing traffic volume of Valley Center Road is 19,100 Average Daily Trips (ADT). As detailed in the traffic study prepared for this project, prepared by Darnell & Associates and dated July 31, 2019 (see reference), the proposed project will generate approximately 1,927 ADT. The project's impacts were evaluated to determine whether a direct noise impact will result. A significant impact is generally expected to be an increase of three decibels. Project-generated traffic noise increases are shown in Table 4.

Table 4. Anticipated Traffic Noise Increases with Project-Generated Traffic

Roadway	Traffic Volume (ADT)			Noise Level Increase (dB)
	Existing	Project	Existing + Project	
Valley Center Road	19,100	1,927	21,027	0.4

As shown in Table 4, no direct impacts are anticipated to result from project traffic, as the increase in noise levels on Valley Center Road would be less than three decibels. For these reasons, project-generated traffic noise levels are expected to be less than significant, and no mitigation is deemed necessary.

4.0 CONCLUSION

Based on the project information available, calculations show that with the current design as shown in the project plans, project-generated noise levels are expected to meet applicable noise limits at all surrounding property lines. Additionally, project-generated traffic volumes will not have a significant effect on the noise environment.

This analysis is based upon a current worst-case scenario of anticipated car wash equipment and typical HVAC equipment for this project. Substitution of equipment with higher noise emission levels may invalidate the recommendations of this study. These conclusions and recommendations are based on the most up-to-date, project-related information available.

5.0 CERTIFICATION

The findings and recommendations of this acoustical analysis report are based on the information available and are a true and factual analysis of the potential acoustical issues associated with the Automated Car Wash project, located at 28874 Valley Center Road in the community of Valley Center, County of San Diego, California. This report was prepared by Mo Ouwenga and Amy Hool.

Mo Ouwenga, Acoustical Consultant

Amy Hool, President/CEO

6.0 REFERENCES

1. DataKustik, CadnaA (Computer Aided Noise Abatement), Version 2022.

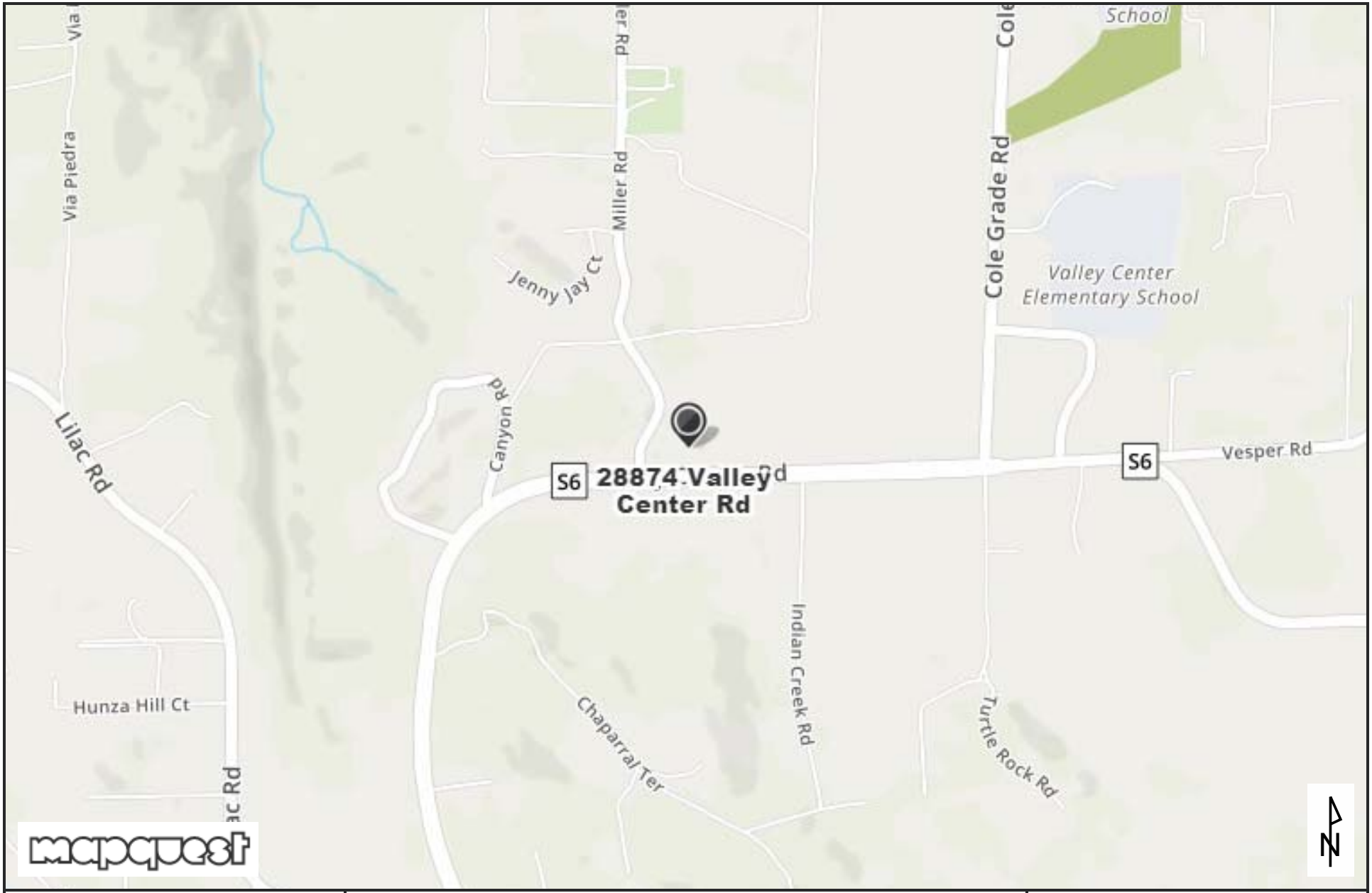
2. County of San Diego Noise Ordinance.

3. Harris, Cyril M., *Handbook of Acoustical Measurements and Noise Control*, Acoustical Society of America, 3rd Edition, 1998.

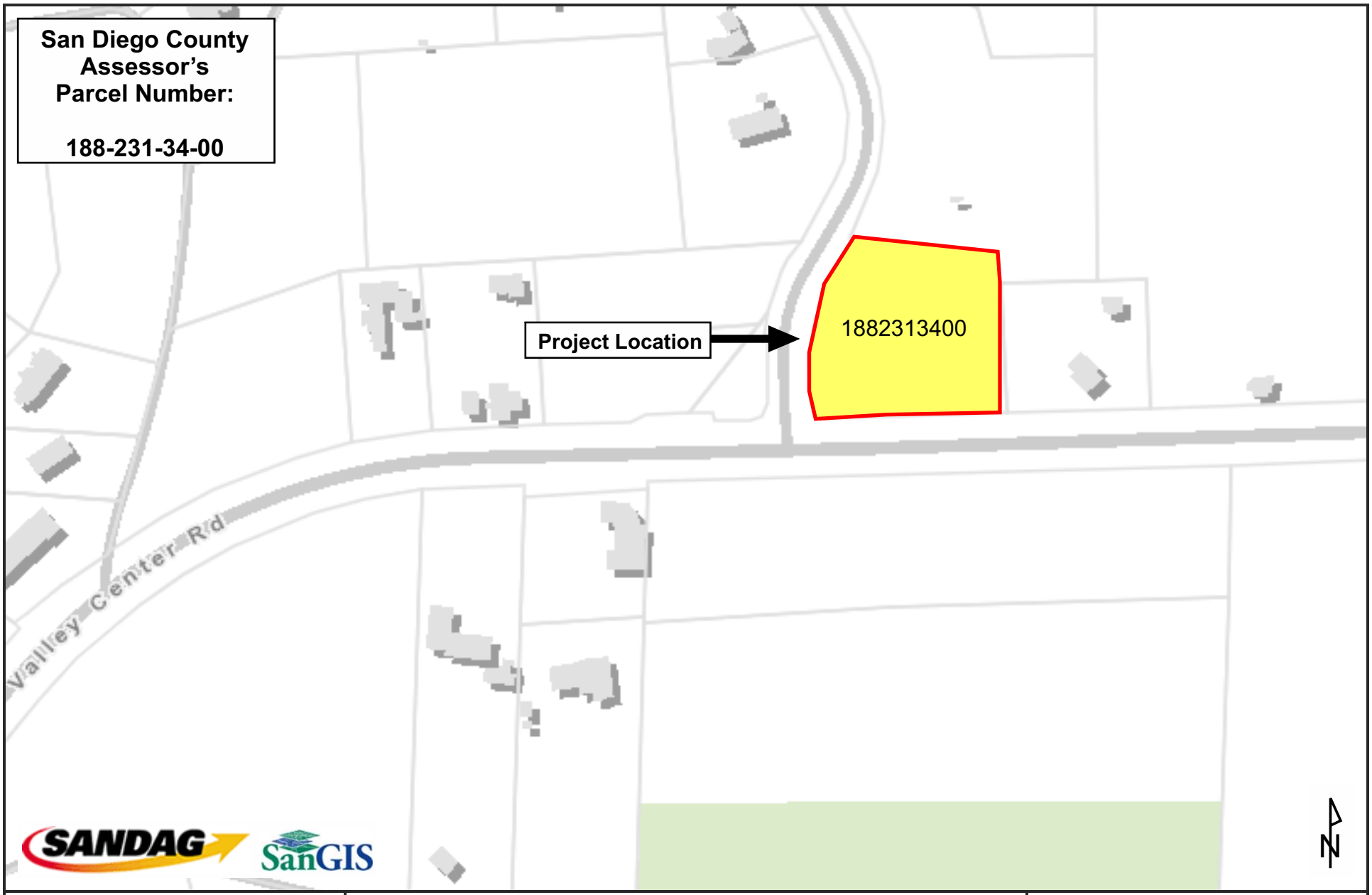
4. San Diego Association of Governments (SANDAG) Traffic Forecast Information Center, Activity Based Regional Transportation Model, 2021 Regional Plan Forecasts (ABM2+/2021), http://tfic.sandag.org.

5. Darnell & Associates, Miller Plaza Project located at the northeast corner of Valley Center Road and Miller Road in Valley Center (County Project No. 08-013STP), 31 July 2019.

FIGURES



Eilar Associates, Inc. 210 South Juniper Street, Suite 100 Escondido, California 92025 760-738-5570	**Vicinity Map** **Job # S190512**	**Figure 1**



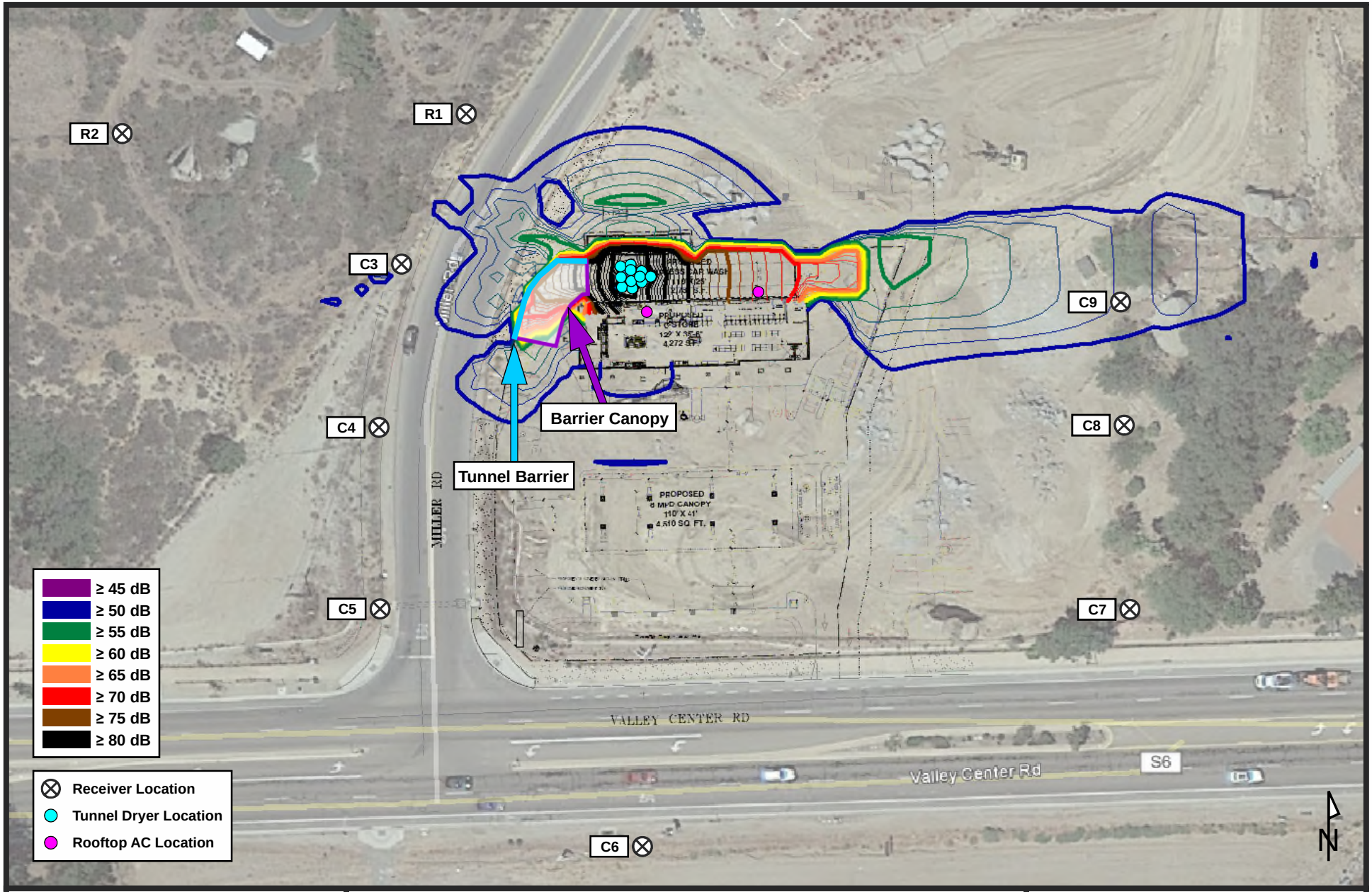
Eilar Associates, Inc. 210 South Juniper Street, Suite 100 Escondido, California 92025 760-738-5570	**Assessor's Parcel Map** **Job # S190512**	**Figure 2**

Eilar Associates, Inc. 210 South Juniper Street, Suite 100 Escondido, California 92025 760-738-5570	**Satellite Aerial Photograph** **Job # S190512**	**Figure 3**

Eilar Associates, Inc.
210 South Juniper Street, Suite 100
Escondido, California 92025
760-738-5570

Topographic Map
Job # S190512

Figure 4



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760-738-5570

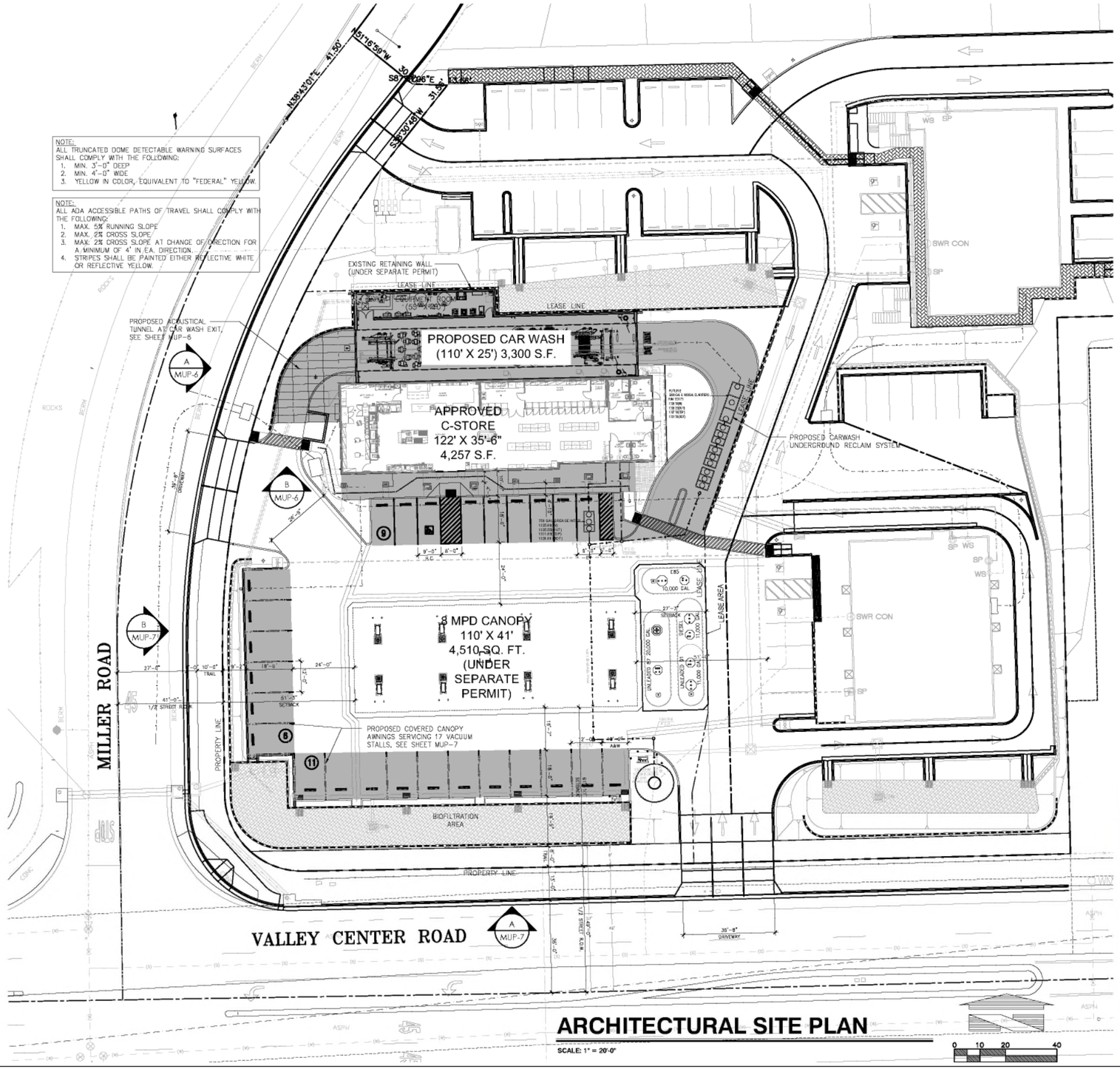
Satellite Aerial Photograph Showing Site Plan, Equipment Noise Contours, Equipment Locations, and Receiver Locations - Current Design
Job # S190512

Figure 5

APPENDIX A

Project Plans

MAJOR USE PERMIT
EXXONMOBIL & CIRCLE K W/ 6 CARAT ENTERPRISE INC.



ARCHITECTURAL SITE PLAN

SCALE: 1" = 20'-0"

0 10 20 40

SITE DATA

ADDRESS:	28874 VALLEY CENTER ROAD, BUILDING C VALLEY CENTER, CA 92082
PERMIT NUMBERS:	TBD
A.P.N.:	188-231-36-00
LOT SIZE:	LEASE GROSS AREA: 41,182 S.F. (0.95 ACRES)
COUNTY:	SAN DIEGO
EXISTING ZONE:	GENERAL COMMERCIAL
PROPOSED ZONE:	GENERAL COMMERCIAL
EXISTING LAND USE:	COMMERCIAL / RETAIL
PROPOSED LAND USE:	COMMERCIAL / RETAIL
BUILDING AREA:	CAR WASH: 3,300 S.F.
CONSTRUCTION TYPE:	V-B/SPRINKLERED
OCCUPANCY:	M
OCCUPANT LOAD:	MAX OCCUPANTS: 86
HEIGHTS:	32'-6" T.O. HIGH PARAPET
STORIES:	ONE
PARKING REQUIREMENTS:	1 SPACE / 250 S.F. (4,257 S.F./250) TOTAL REQUIRED: 17 SPACES TOTAL PROVIDED: 26 SPACES (1 H.C. & 1 E.V. & 15 VACUUM)
LOT COVERAGE:	BUILDING: 12,067 S.F. (29%) LANDSCAPING: 10,699 S.F. (26%) IMPERVIOUS: 18,416 S.F. (45%) TOTAL LEASED AREA: 41,182 S.F. (100%)

CODE INFORMATION

ALL CONSTRUCTION TO COMPLY WITH:

BUILDING CODE:	2019 CALIFORNIA BUILDING CODE
PLUMBING CODE:	2019 CALIFORNIA PLUMBING CODE
ELECTRICAL CODE:	2019 CALIFORNIA ELECTRIC CODE
MECHANICAL CODE:	2019 CALIFORNIA MECHANICAL CODE
ENERGY CODE:	2019 CALIFORNIA ENERGY CODE
GREEN BUILDING:	2019 CALIFORNIA GREEN BUILDING CODE
FIRE CODE:	2019 CALIFORNIA FIRE CODE (2015 IFC)

PROJECT OWNER / APPLICANT

6 CARAT ENTERPRISE INC.,
DAVID CARATTINI
270 NORTH EL CAMINO REAL #523
ENCINITAS, CA 92024
PHONE: 760-822-0004
E-MAIL: davidcaratt@gmail.com

APPLICANT'S REP.

VANCE AND ASSOCIATES - PLANNING
LEE VANCE
224 SEEMAN DRIVE
ENCINITAS, CA 92024
PHONE: 760-492-2147
E-MAIL: vanceplan@cox.net

ARCHITECT

EMPIRE DESIGN GROUP, INC.
511 N MAIN STREET
LAKE ELSINORE, CA 92530
CONTACT: GREGORY HANN, ARCHITECT
PHONE: (951) 696-1490
CELL PHONE: (951) 809-7601
E-MAIL: ghann@empiregr.biz

SCOPE OF WORK

1. MAJOR USE PERMIT APPLICATION IS TO ALLOW FOR A CAR WASH FACILITY TO BE ADDED TO THE APPROVED USE ON APN 188-231-36-00. EXISTING APPROVED SITE PLAN PDS 3500-08-013 ALLOWS FOR OTHER USES SHOWN ON THIS PLOT PLAN.

DRAWING INDEX

VICINITY MAP

EMPIRE DESIGN GROUP Inc.
511 N Main St.
Lake Elsinore, CA 92530
951-696-1490
EmpireDesignGroup.biz

CLIENT:

6 CARAT ENTERPRISE INC.

MUP FOR CAR WASH @ EXXONMOBIL & CIRCLE K
28874 VALLEY CENTER ROAD, BLDG. C
VALLEY CENTER, CA 92082

ARCHITECT OF RECORD:
GREGORY S. HANN, AIA
511 N MAIN STREET
LAKE ELSINORE, CA 92530
TEL: 951-696-1490
CELL: 951-809-7601
E-MAIL: ghann@empiregr.biz

SEAL:

STATE OF CALIFORNIA — GREGORY SCOTT HANN — 28863 — REN. 9/30/23 — LICENSED ARCHITECT

Date:	FEBRUARY 8, 2022
Project Number:	EDG#04548

NO.	DATE	REVISION DESCRIPTION
1	8-20-22	1ST MUP REVISIONS

DESIGNED BY:	GH
CHECKED BY:	GH
DRAWN BY:	AH

DRAWING TITLE:

COVER SHEET & ARCHITECTURAL SITE PLAN

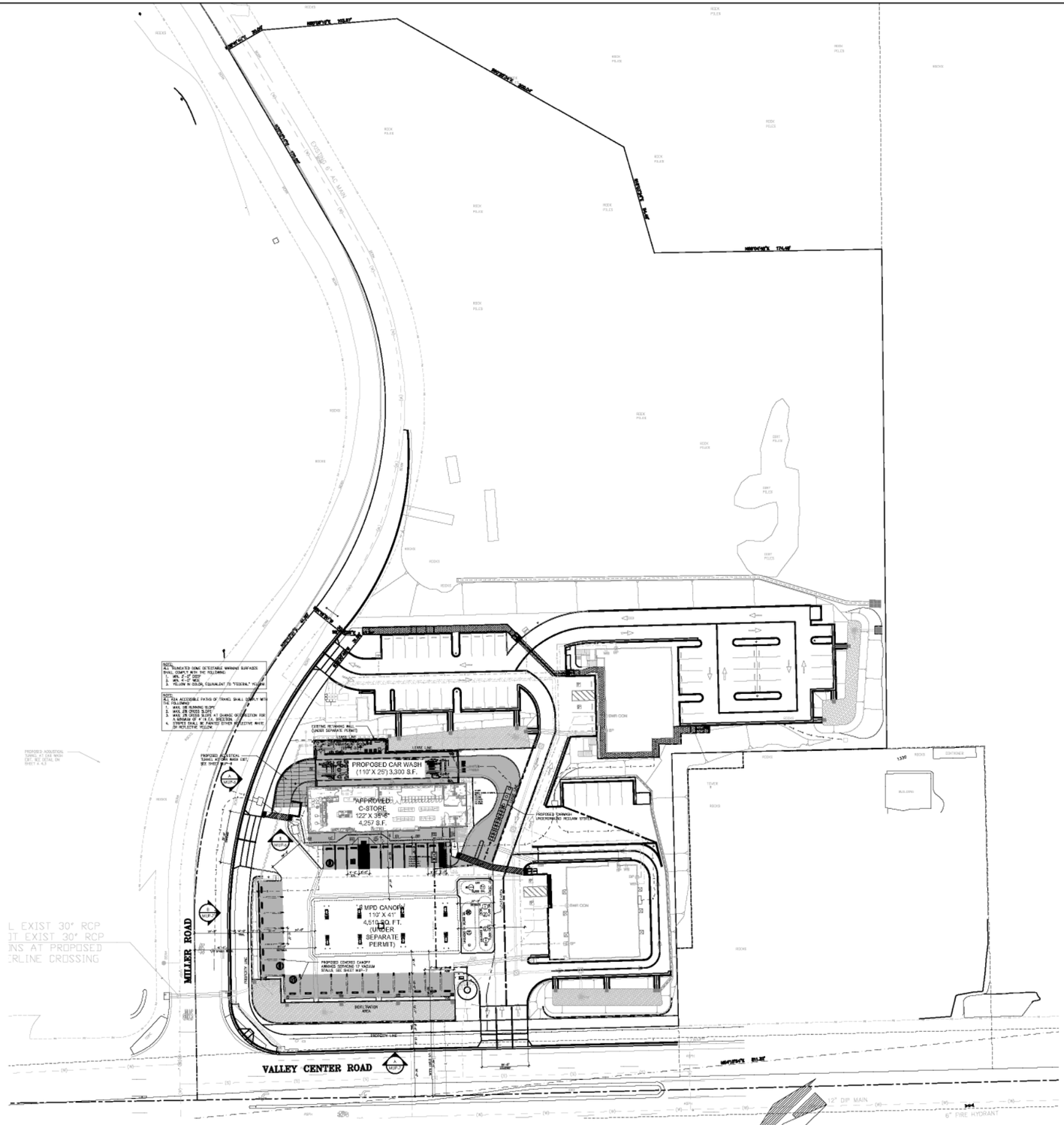
SHEET NO:

MUP-1

6/23/2022 6:03:37 PM

NOTES:

1. EXISTING APPROVED SITE PLAN PDS 3500-08-013 ALLOWS FOR OTHER USES SHOWN ON THIS PLOT PLAN.



ARCHITECTURAL OVERALL SITE PLAN

SCALE: 1" = 40'-0"

0 20 40 80

EMPIRE DESIGN GROUP Inc.

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CLIENT:

6 CARAT ENTERPRISE INC.

MUP FOR CAR WASH @
EXXONMOBIL & CIRCLE K
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SEAL:

STATE OF CALIFORNIA
GREGORY SCOTT HANN
C-26863
REN. 9/30/23
LICENSED ARCHITECT

Date:	FEBRUARY 8, 2022
Project Number:	EDG#04548

NO.	DATE	REVISION DESCRIPTION
1	6-20-22	1ST MUP REVISIONS

DESIGNED BY:	GH	
CHECKED BY:	GH	
DRAWN BY:	AH	

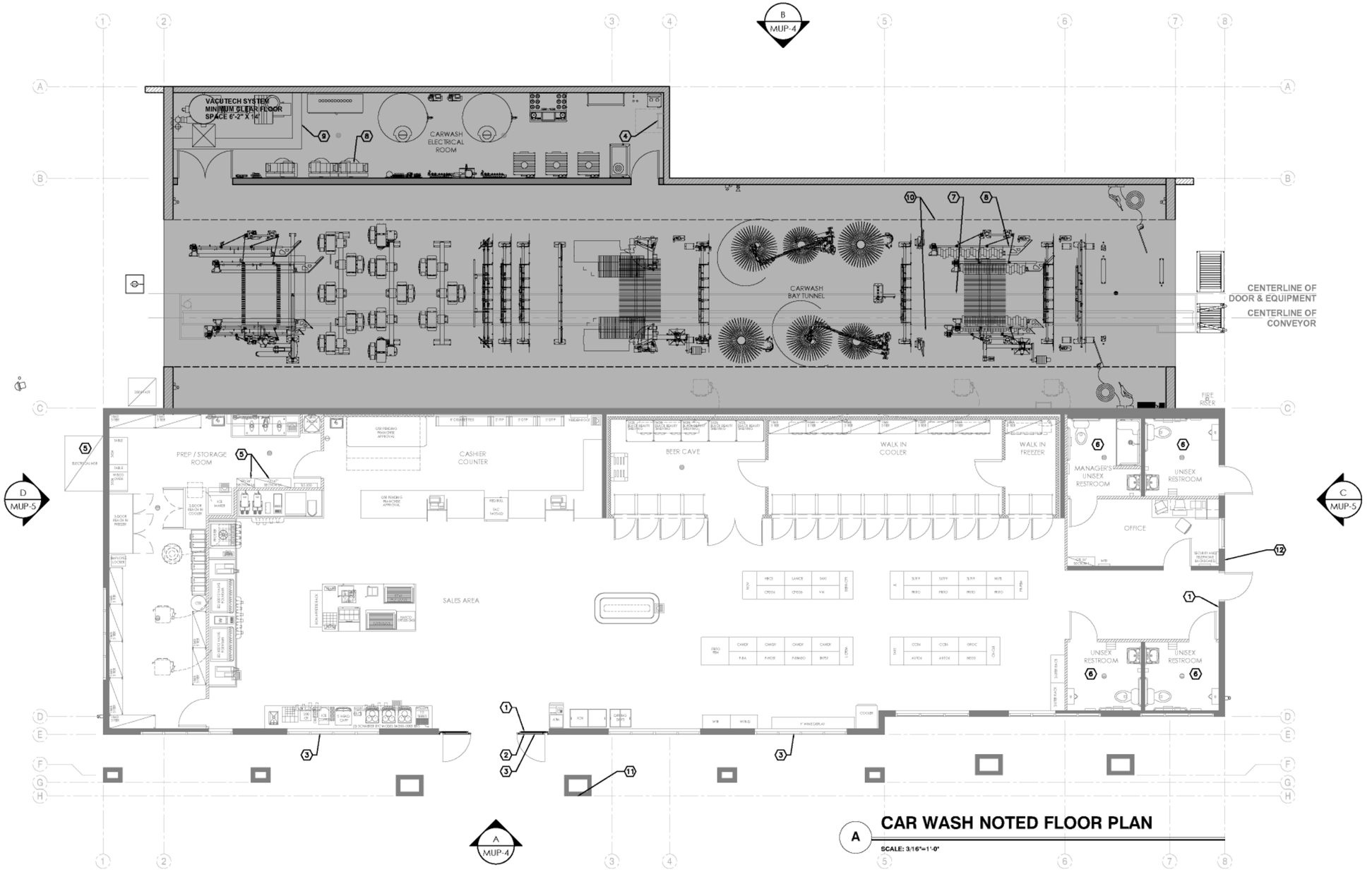
DRAWING TITLE:

ARCHITECTURAL
OVERALL SITE PLAN

SHEET NO:

MUP-2

6/23/2022 6:03:55 PM



A CAR WASH NOTED FLOOR PLAN

SCALE: 3/16"=1'-0"

CARWASH FINISHES:

CARWASH BAY

FLOORING
SMOOTH MACHINE TOWELED FINISH

WALLS
OCTAFORM QUICK LINER PVC WALL AND CEILING PANELS OR EQUAL OVER 6 MIL PLASTIC OVER 5/8" PLYWOOD

CEILING
OCTAFORM QUICK LINER PVC WALL AND CEILING PANELS OR EQUAL OVER 6 MIL PLASTIC OVER 5/8" PLYWOOD

CARWASH EQUIPMENT ROOM

FLOORING
SMOOTH MACHINE TOWELED FINISH

WALLS
FRP OVER 5/8" PLYWOOD

CEILING
MOISTURE RESISTANT GYP OVER 5/8" PLYWOOD

KEYED NOTES:

1. EXISTING TACTICAL EXIT SIGNAGE (TYP. AT ALL EXITS) SEE DETAIL 2 SHEET ADA1
2. EXISTING ADA INTERNATIONAL ACCESSIBLE SYMBOL @ ENTRANCE COMPLYING WITH CBC 1117B.5.8 AND MOUNTED PER CBC 1117B.5.7
3. EXISTING DOORS AND WINDOWS TO REMAIN
4. EXISTING ROOF ACCESS HATCH AND LADDER
5. EXISTING ELECTRICAL SWITCH GEAR AND ELECTRICAL PANELS AT THIS LOCATION SEE ELECTRICAL
6. EXISTING UNISEX RESTROOM
7. EXISTING TRENCH DRAIN IN CONCRETE, SEE MACNEIL PROPOSED AUTOMATED CAR WASH PACKAGE
8. PROPOSED CARWASH EQUIPMENT, SEE MACNEIL AUTOMATED CARWASH PACKAGE
9. PROPOSED VACUUM EQUIPMENT, SEE VACUTECH VACUUM PACKAGE
10. DASHED LINE OF EXISTING CARWASH BAY 6" CURB LINE BELOW
11. EXISTING RECESSED RAPID ENTRY KNOX BOX AND TAMPER SWITCH PER MANUF. SPECIFICATIONS, INSTALL AT 60" A.F.F., SEE EXTERIOR ELEVATIONS

EMPIRE DESIGN GROUP Inc.
24861 Washington Ave.
Murrieta, Calif. 92562
Tel 951-698-1490 Fax 951-698-1443

CLIENT:

6 CARAT ENTERPRISE INC.

PROPOSED CARWASH @ EXXONMOBIL & CIRCLE K
28874 VALLEY CENTER ROAD, BLDG. C
VALLEY CENTER, CA 92082

Architect of Record:
GREGORY S. HANN, AIA
24861 WASHINGTON AVE.
MURRIETA, CA 92562
TEL: 951-698-1490
CEL: 951-609-7801
FAX: 951-698-1443
E-MAIL: ghann@empiregr.biz

SEAL:

STATE OF CALIFORNIA
GREGORY SCOTT HANN
No. C-28953
REN. 9/30/21
LICENSED ARCHITECT

Date: JULY 1, 2019
Project Number: EDG#04548

NO.	DATE	REVISION DESCRIPTION

DESIGNED BY: GH
CHECKED BY: GH
DRAWN BY: AH

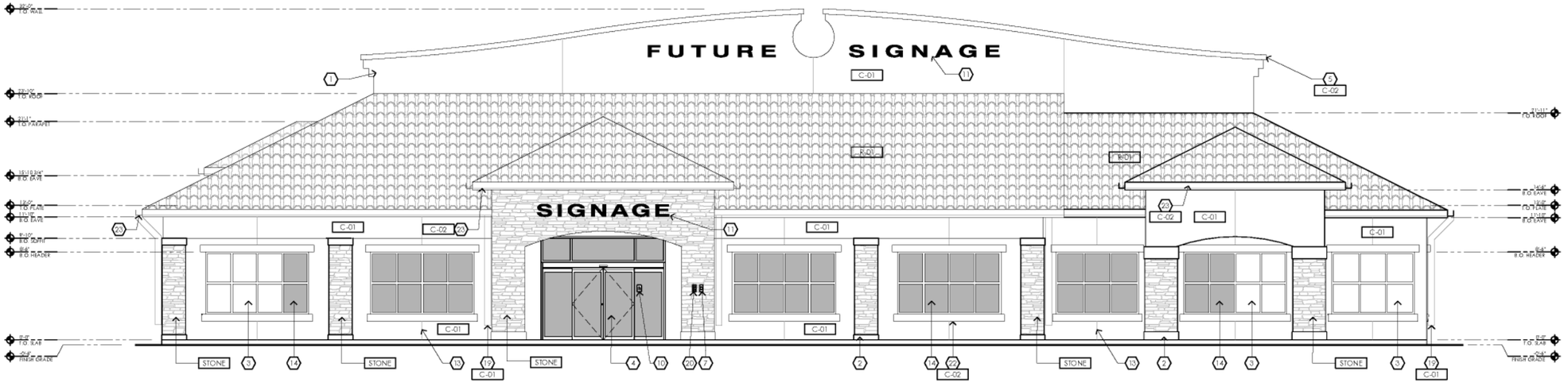
DRAWING TITLE:

PROPOSED FLOOR PLAN

SHEET NO:

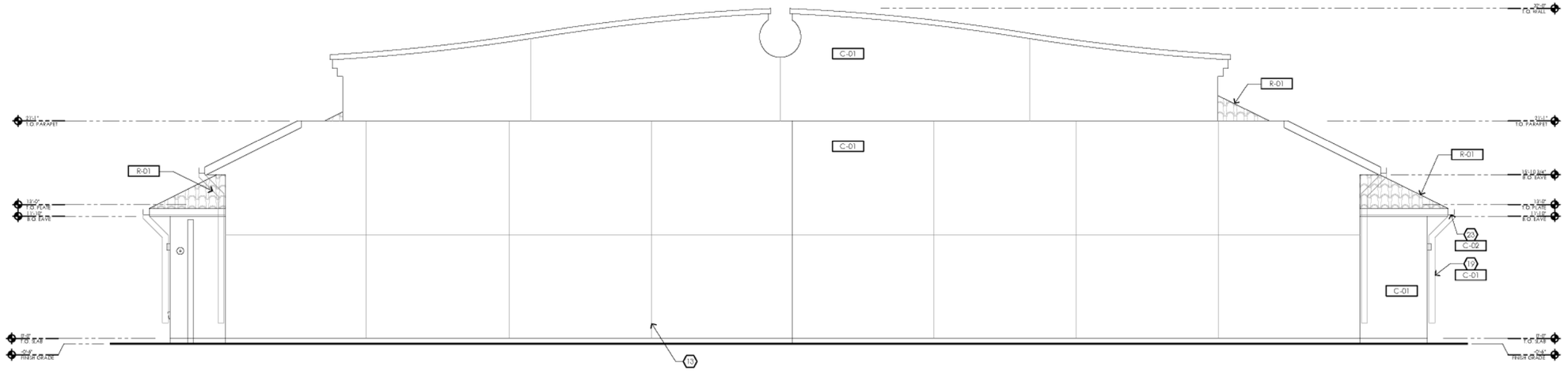
MUP-3

6/23/2022 6:04:11 PM



A SOUTH ELEVATION

SCALE: 3/16"=1'-0"



B NORTH ELEVATION

SCALE: 3/16"=1'-0"

KEYED NOTES:

1. APPROVED BUILDING ADDRESS EACH CHARACTER SHALL BE A MINIMUM 12" HIGH AND A MINIMUM OF .5" WIDE. THEY SHALL BE INSTALLED ON A CONTRASTING BACKGROUND AND TO BE PLAINLY VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY
2. SMOOTH BRUSHED CONCRETE BASE, TYP.
3. SPANDREL GLASS WINDOWS AT NON HATCHED LOCATIONS AS SHOWN
4. STANLEY DURA GLIDE 2000 AUTOMATIC SLIDE ENTRANCE DOOR
5. PARAPET WALL WITH 22 GAUGE FLASHING ABOVE, PAINT C-02 [TYP.]
6. OPEN BEYOND, CAR WASH TUNNEL
7. EMERGENCY SHUTOFF VALVES REFER TO MECHANICAL AND TANK DRAWINGS FOR DETAILS (TYP. OF 1 ON BUILDING)
8. NOT USED
9. NOT USED
10. ADA ACCESSIBILITY SIGN
11. FUTURE SIGNAGE LOCATION UNDER SEPERATE PERMIT
12. 5-1/2" Z199 POLISHED BRONZE DOWNSPOUT NOZZLE NO-BUB [TYP.] MANUFACTURE TO BE ZURN OR EQUAL
13. CONTROL JOINTS AS SHOWN
14. STOREFRONT 1 1/4" BLUE-GREEN GLAZING WITH ANODIZED ALUMINUM 2" HOLLOW METAL FRAMES, TYP.
15. SINGLE HUNG WINDOW AT THIS LOCATION [TYP. OF 1]
16. EXTERIOR FIRE RISER LOCATION, SEE CIVIL, FIRE BELL ABOVE
17. ELECTRICAL SWITCH GEAR LOCATION, PAINT C-01
18. LSI - XLCW WALL PACKS (TYP. OF 3) MOUNTED AT 10'-0" A.F.F. O.C.
19. GUTTER DOWNSPOUT LOCATIONS. (TYP.), PAINT C-01
20. RECESSED RAPID ENTRY KNOX BOX AND TAMPER SWITCH PER MANUF. SPECIFICATIONS. INSTALL AT 60" A.F.F.
21. HOLLOW METAL DOOR TYP. SEE DOOR SCHEDULE, PAINT C-01 [TYP.]
22. 8" WIDE, 2" DEEP FOAM ARCHITECTURAL ACCENT, PAINT C-02 [TYP.]
23. 6" STEEL GALVANIZED GUTTER SYSTEM SURROUNDING ROOF, BY SAN DIEGO RAIN GUTTERS OR EQUAL, PAINT C-02 [TYP.]

EXTERIOR PAINTS:

C-01	OMEGA PRODUCTS - COLORTEX STUCCO #437, ROUGH KHAKI
C-02	OMEGA PRODUCTS - COLORTEX STUCCO #437, TOFFEE CRUNCH

EXTERIOR FINISHES:

STUCCO	LAHABRA ACRYLIC ELECTROMETRIC FINISH (20/30 SAND FLOAT) OVER THREE PART 7/8" PORTLAND CEMENT PLASTER OVER METAL LATH. PROVIDE CONTROL JOINTS AS SHOWN
STONE	KON STONE SERIES: CANYON STONE COLOR: MONTANA

ROOFING:

R-01	1-PIECE "S" TILE - FIRE FLASH US TILE BY BORAL SKU:USDU6074 ASTM C1167

GENERAL NOTES:

1. INSTALLATION OF ROOFING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

EMPIRE DESIGN GROUP Inc.
511 N Main St.
Lake Elsinore, CA 92530
951-696-1490
EmpireDesignGroup.biz

CLIENT:

6 CARAT ENTERPRISE INC.

MUP FOR CAR WASH @ EXXONMOBIL & CIRCLE K
28874 VALLEY CENTER ROAD, BLDG. C
VALLEY CENTER, CA 92082

ARCHITECT OF RECORD:
GREGORY S. HANN, AIA
511 N MAIN STREET
LAKE ELSINORE, CA 92530
TEL: 951-696-1490
CELL: 951-809-7601
E-MAIL: ghann@empiregr.biz

SEAL:

STATE OF CALIFORNIA
GREGORY SCOTT HANN
C-25663
REN. 9/30/23
LICENSED ARCHITECT

Date: FEBRUARY 8, 2022
Project Number: EDG#04548

NO.	DATE	REVISION DESCRIPTION
1	6-20-22	1ST MUP REVISIONS

DESIGNED BY: GH
CHECKED BY: GH
DRAWN BY: AH

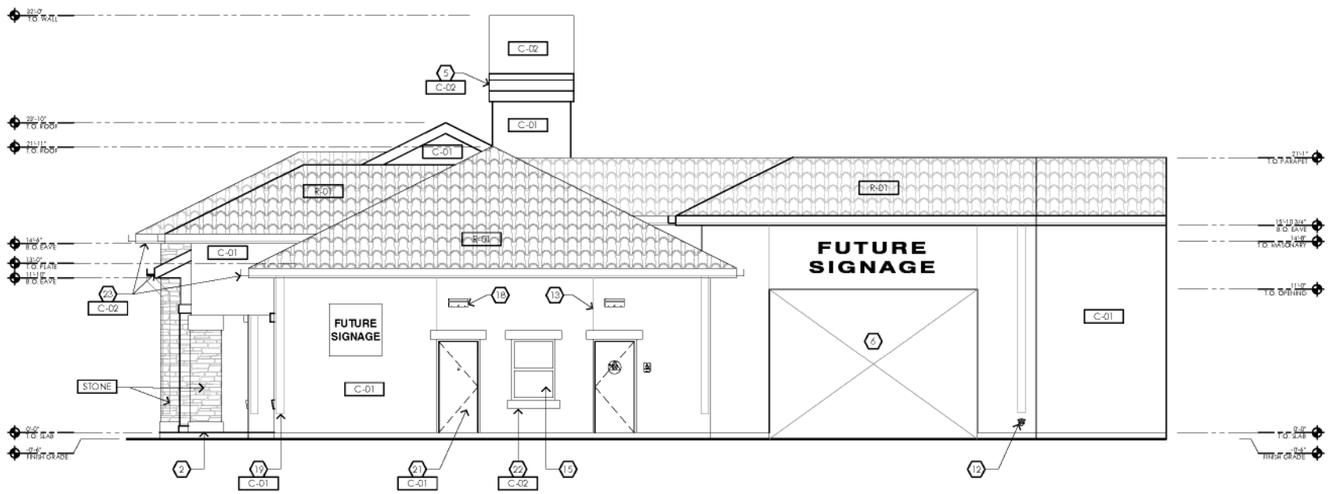
DRAWING TITLE:

PROPOSED BUILDING EXTERIOR ELEVATIONS

SHEET NO:

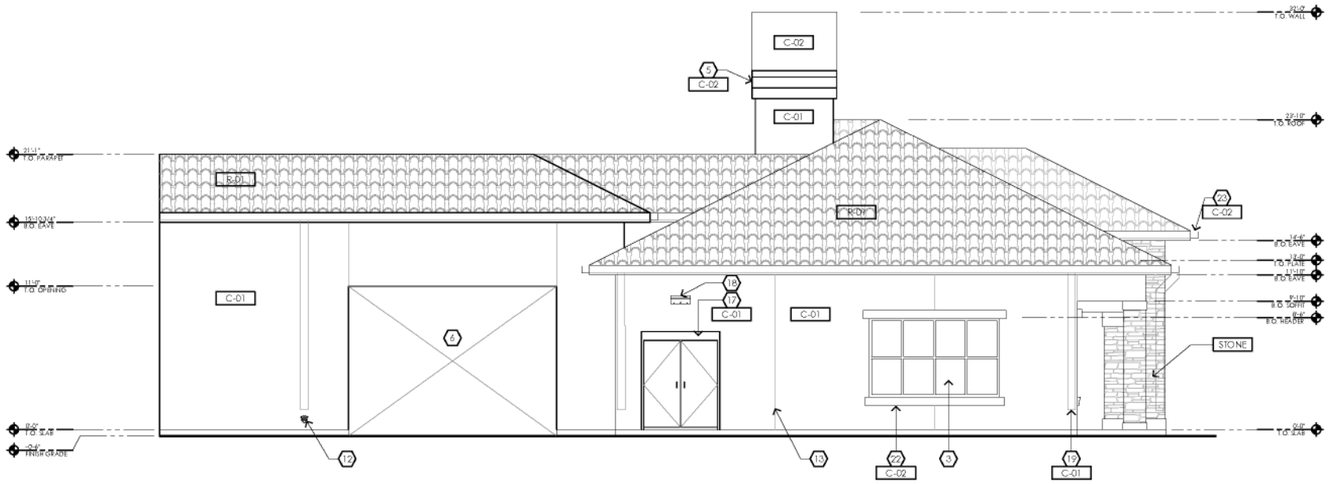
MUP-4

6/23/2022 6:04:25 PM



C **EAST ELEVATION**

SCALE: 3/16"=1'-0"



D **WEST ELEVATION**

SCALE: 3/16"=1'-0"

KEYED NOTES:

1. APPROVED BUILDING ADDRESS EACH CHARACTER SHALL BE A MINIMUM 12" HIGH AND A MINIMUM OF .5" WIDE. THEY SHALL BE INSTALLED ON A CONTRASTING BACKGROUND AND TO BE PLAINLY VISIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY
2. SMOOTH BRUSHED CONCRETE BASE, TYP.
3. SPANDREL GLASS WINDOWS AT THIS LOCATIONS SHOWN
4. STANLEY DURA GLIDE 2000 AUTOMATIC SLIDE ENTRANCE DOOR
5. PARAPET WALL WITH 22 GAUGE FLASHING ABOVE, PAINT C-02 (TYP.)
6. OPEN BEYOND, CAR WASH TUNNEL
7. EMERGENCY SHUTOFF VALVES REFER TO MECHANICAL AND TANK DRAWINGS FOR DETAILS
8. NOT USED
9. NOT USED
10. ADA ACCESSIBILITY SIGN
11. FUTURE SIGNAGE UNDER SEPERATE PERMIT
12. 5-1/2" Z199 POLISHED BRONZE DOWNSPOUT NOZZLE NO-BUB (TYP.) MANUFACTURE TO BE ZURN OR EQUAL
13. CONTROL JOINTS AS SHOWN
14. STOREFRONT 1/4" BLUE-GREEN GLAZING WITH ANODIZED ALUMINUM 2" HOLLOW METAL FRAMES, TYP.
15. SINGLE HUNG WINDOW AT THIS LOCATION (TYP. OF 1)
16. EXTERIOR FIRE RISER LOCATION, SEE CIVIL, FIRE BELL ABOVE
17. ELECTRICAL SWITCH GEAR LOCATION, PAINT C-01
18. LSI - XLCW WALL PACKS (TYP. OF 3) MOUNTED AT 10'-0" A.F.F. O.C.
19. GUTTER DOWNSPOUT LOCATIONS, (TYP.), PAINT C-01
20. RECESSED RAPID ENTRY KNOX BOX AND TAMPER SWITCH PER MANUF. SPECIFICATIONS, INSTALL AT 60" A.F.F.
21. HOLLOW METAL DOOR TYP. SEE DOOR SCHEDULE, PAINT C-01(TYP.)
22. 8" WIDE, 2" DEEP FOAM ARCHITECTURAL ACCENT, PAINT C-02 (TYP.)
23. 6" STEEL GALVANIZED GUTTER SYSTEM SURROUNDING ROOF, BY SAN DIEGO RAIN GUTTERS OR EQUAL, PAINT C-02 (TYP.)

EXTERIOR PAINTS:

C-01	OMEGA PRODUCTS - COLORTEK STUCCO #437, ROUGH KHAKI
C-02	OMEGA PRODUCTS - COLORTEK STUCCO #437, TOFFEE CRUNCH

EXTERIOR FINISHES:

STUCCO	LAHABRA ACRYLIC ELECTROMETRIC FINISH (20/30 SAND FLOAT) OVER THREE PART 7/8" PORTLAND CEMENT PLASTER OVER METAL LATH. PROVIDE CONTROL JOINTS AS SHOWN
STONE	KONI STONE SERIES: CANYON STONE COLOR: MONTANA

ROOFING:

R-01	1-PIECE 'S' TILE - FIRE FLASH US TILE BY BORAL SKU:1USDU6074 ASTM C1167

GENERAL NOTES:

1. INSTALLATION OF ROOFING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

EMPIRE DESIGN GROUP Inc.

511 N Main St.
Lake Elsinore, CA 92530
951-696-1490
EmpireDesignGroup.biz

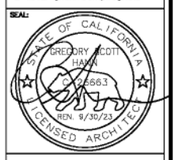
CLIENT:

6 CARAT ENTERPRISE INC.

MUP FOR CAR WASH @ EXXONMOBIL & CIRCLE K
28874 VALLEY CENTER ROAD, BLDG. C
VALLEY CENTER, CA 92082

ARCHITECT OF RECORD:
GREGORY S. HANN, AIA
511 N MAIN STREET
LAKE ELSINORE, CA 92530
TEL: 951-696-1490
CELL: 951-809-7601
E-MAIL: ghann@empiregr.biz

SEAL:



Date:	FEBRUARY 8, 2022
Project Number:	EDG#04548

NO.	DATE	REVISION DESCRIPTION
1	8-30-22	1ST MUP REVISIONS

DESIGNED BY:	GH
CHECKED BY:	GH
DRAWN BY:	AH

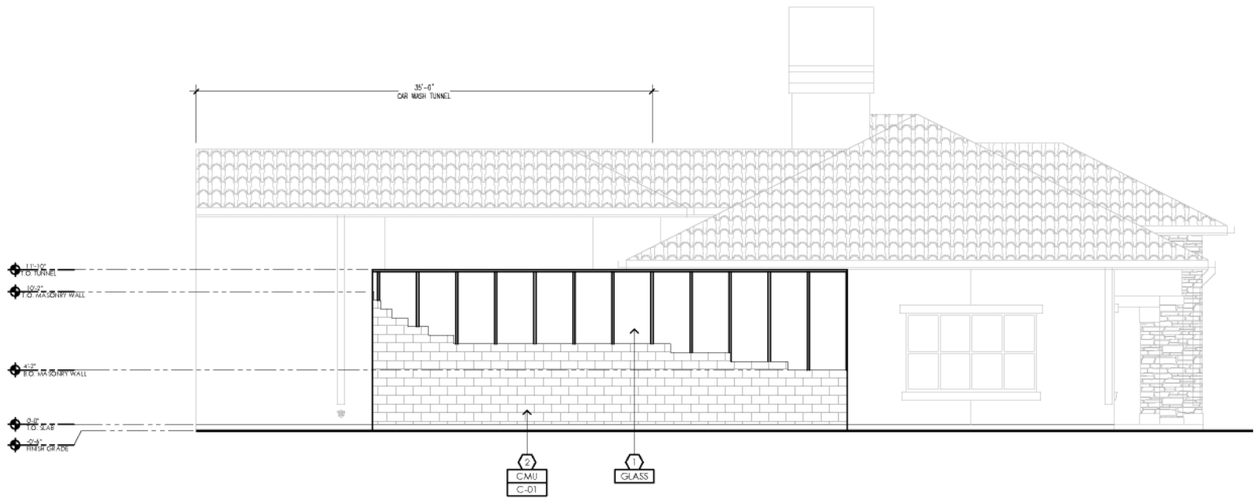
DRAWING TITLE:

PROPOSED BUILDING EXTERIOR ELEVATIONS

SHEET NO:

MUP-5

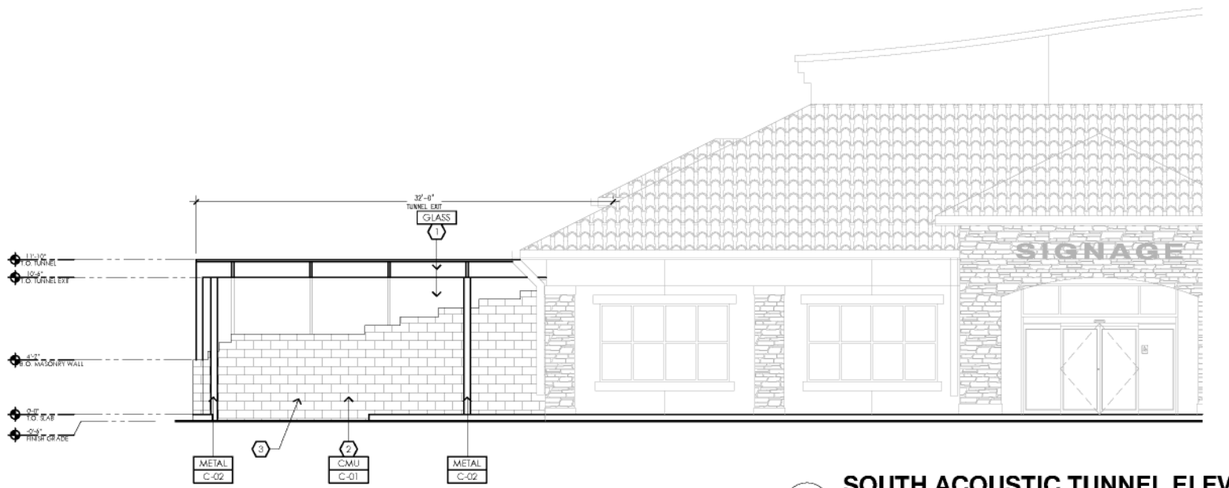
6/23/2022 6:04:44 PM



A **WEST ACOUSTIC TUNNEL ELEVATION**

SCALE: 3/16"=1'-0"

"AS VIEWED FROM MILLER RANCH ROAD"



B **SOUTH ACOUSTIC TUNNEL ELEVATION**

SCALE: 3/16"=1'-0"

"AS VIEWED FROM VALLEY CENTER ROAD"

KEYED NOTES:

1. SPANDREL GLASS WINDOWS AT LOCATIONS SHOWN BY CALCRAFT
2. CMU RETAINING WALL BY CIVIL ENGINEER
3. CAR WASH TUNNEL EXIT LOCATION

EXTERIOR PAINTS:

C-01	OMEGA PRODUCTS - COLORTEK STUCCO #437, ROUGH KHAKI
C-02	OMEGA PRODUCTS - COLORTEK STUCCO #427, TOFFEE CRUNCH

EXTERIOR FINISHES:

CMU	CONCRETE MASONRY UNIT
METAL	PREFABRICATED METAL SUPPORT POST
GLASS	SUNPAL POLYCARBONATE PANELS SUPPORT CLIPS PER MFG.

GENERAL NOTES:

1. INSTALLATION OF EXIT TUNNEL SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

EMPIRE DESIGN GROUP Inc.

511 N Main St.
Lake Elsinore, CA 92530
951-686-1490
EmpireDesignGroup.biz

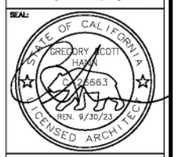
CLIENT:

6 CARAT ENTERPRISE INC.

MUP FOR CAR WASH @
EXXONMOBIL & CIRCLE K
28874 VALLEY CENTER ROAD, BLDG. C
VALLEY CENTER, CA 92082

ARCHITECT OF RECORD:
GREGORY S. HANN, AIA
511 N MAIN STREET
LAKE ELSINORE, CA 92530
TEL: 951-686-1490
CELL: 951-809-7601
E-MAIL: ghann@empiregr.biz

SEAL:



Date: FEBRUARY 8, 2022

Project Number: EDG#04548

NO.	DATE	REVISION DESCRIPTION
1	8-30-22	1ST MUP REVISIONS

DESIGNED BY: GH
CHECKED BY: GH
DRAWN BY: AH

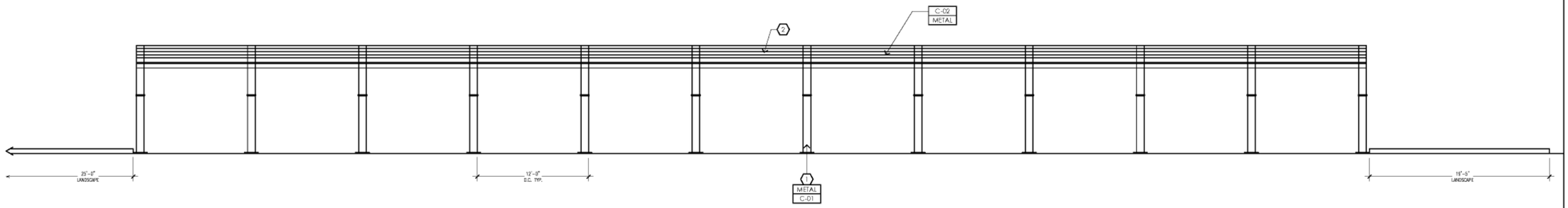
DRAWING TITLE:

PROPOSED EXIT TUNNEL EXTERIOR ELEVATIONS

SHEET NO:

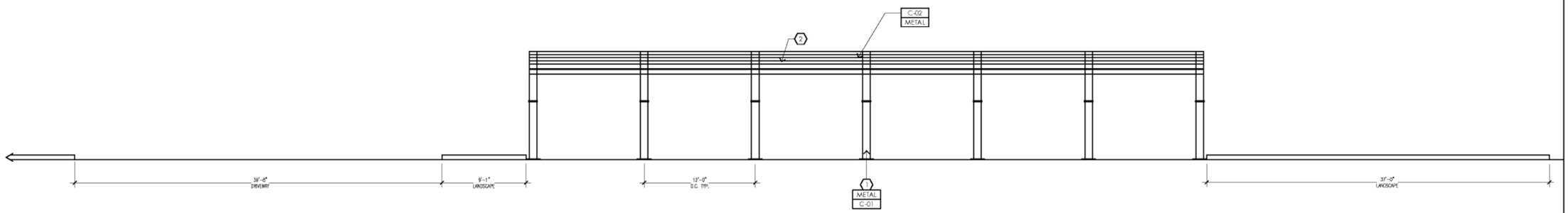
MUP-6

6/23/2022 6:04:56 PM



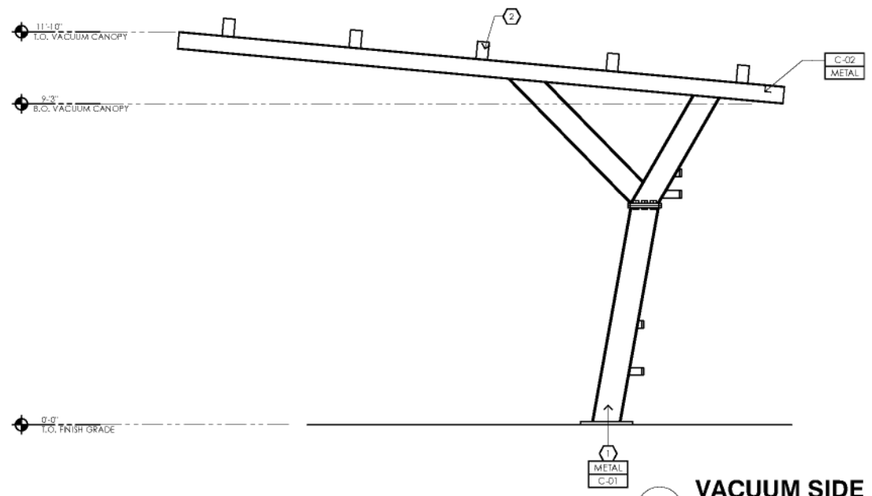
A VALLEY CENTER ROAD VACUUM ELEVATIONS

SCALE: 3/16"=1'-0"



B MILLER ROAD VACUUM ELEVATIONS

SCALE: 3/16"=1'-0"



1 VACUUM SIDE ELEVATION

SCALE: N/A

KEYED NOTES:

1. METAL VACUUMS AWNING BY VACUTECH
2. MOUNTS FOR SOLAR PANELS

EXTERIOR PAINTS:

- C-01 — OMEGA PRODUCTS - COLORTEK STUCCO #437, ROUGH KHAKI
- C-02 — OMEGA PRODUCTS - COLORTEK STUCCO #437, TOFFEE CRUNCH

EXTERIOR FINISHES:

- METAL — PREFABRICATED METAL VACUUM EQUIPMENT AND COVER

GENERAL NOTES:

1. INSTALLATION OF AWNING & VACUUMS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

EMPIRE DESIGN GROUP Inc.
511 N Main St.
Lake Elsinore, CA 92530
951-686-1490
EmpireDesignGroup.biz

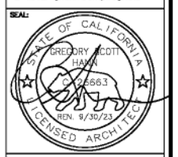
CLIENT:

6 CARAT ENTERPRISE INC.

MUP FOR CAR WASH @ EXXONMOBIL & CIRCLE K
28874 VALLEY CENTER ROAD, BLDG. C
VALLEY CENTER, CA 92082

ARCHITECT OF RECORD:
GREGORY S. HANN, AIA
511 N MAIN STREET
LAKE ELSINORE, CA 92530
TEL: 951-686-1490
CELL: 951-809-7601
E-MAIL: ghann@empiregr.biz

SEAL:



Date: FEBRUARY 8, 2022
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DESIGNED BY: GH
CHECKED BY: GH
DRAWN BY: AH

DRAWING TITLE:

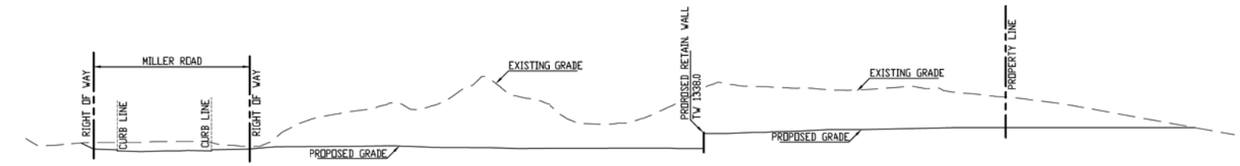
PROPOSED VACUUM AWNING EXTERIOR ELEVATIONS

SHEET NO:

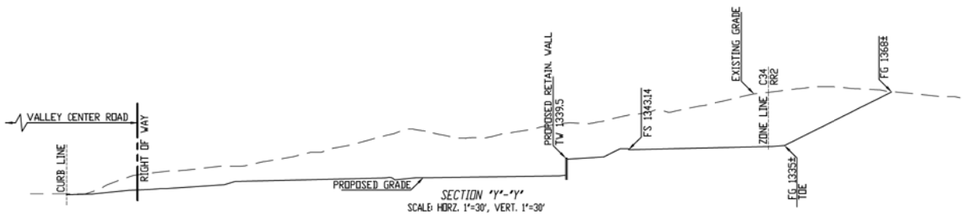
MUP-7

6/23/2022 6:05:01 PM

VALLEY CENTER VIEW PROPERTIES RETAIL
PRELIMINARY GRADING PLAN
SITE DEVELOPMENT PLAN REVIEW EXHIBIT
CASE NO.: S08-013



SECTION "X"-"X"
SCALE: HORZ. 1"=30', VERT. 1"=30'

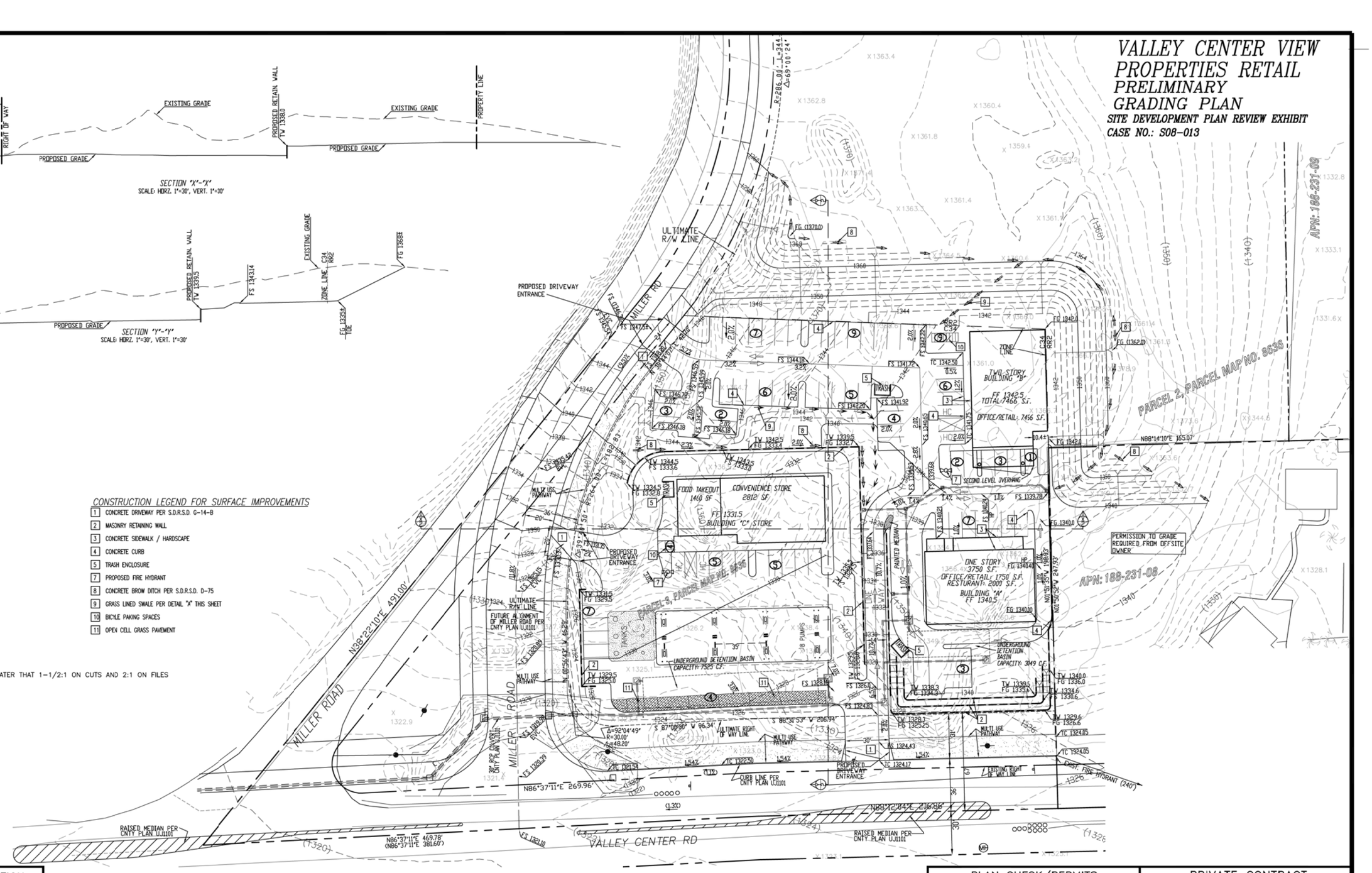


SECTION "Y"-"Y"
SCALE: HORZ. 1"=30', VERT. 1"=30'

CONSTRUCTION LEGEND FOR SURFACE IMPROVEMENTS

1. CONCRETE DRIVEWAY PER S.D.R.S.D. G-14-B
2. MASONRY RETAINING WALL
3. CONCRETE SIDEWALK / HARDSCAPE
4. CONCRETE CURB
5. TRASH ENCLOSURE
7. PROPOSED FIRE HYDRANT
8. CONCRETE BROW DITCH PER S.D.R.S.D. D-75
9. GRASS LINED SWALE PER DETAIL "A" THIS SHEET
10. BICYLE PAKING SPACES
11. OPEN CELL GRASS PAVEMENT

GRADING NOTE
PROPOSED SLOPE RATIOS; NOT GREATER THAT 1-1/2:1 ON CUTS AND 2:1 ON FILES



30 0 30 60
Scale: 1" = 30'

CIVIL ENGINEERING * LAND PLANNING
Aquaterra Engineering Inc.
1843 Campesino Place
Oceanside, CA 92054
Tele: (760) 439-2802
Fax: (760) 439-2866

SEE DRAINAGE FEATURES ON SHEET 3

SCALE: 1"= 30'

PRELIMINARY GRADING PLAN

PROPERTY OWNER INFORMATION

NAME: VALLEY CENTER VIEW PROPERTIES
ADDRESS: 3936 HORTENSIA STREET
SAN DIEGO, CA 92110
TELEPHONE NUMBER: 619-523-0133
(24 HOUR CONTACT NUMBER)
SITE A.P.N. NUMBER: 188-231-34
SITE ADDRESS: xxxxx VALLEY CENTER ROAD

BENCH MARK

DESCRIPTION: 2-1/2" BRASS CAP STAMPED "S.D. SURV. MON. 19 PT."
LOCATION: IN WELL MONUMENT AT POINT EGCS-3048
RECORD FROM: RECORD OF SURVEY MAP 14236
ELEVATION: 1336.773 DATUM: NGVD 29 MSL

PLAN CHECK/PERMITS

BUILDING PERMIT
PLAN CHECK NUMBER:
PARCEL MAP NUMBER:

ENGINEER OF WORK

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT AND THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT.

NAME: GARY LIPSKA DATE:
RCE NO: RCE 23080 EXPIRES: 12/31/09

PRIVATE CONTRACT

COUNTY OF SAN DIEGO
DEPARTMENT OF PLANNING AND LAND USE

PRELIMINARY GRADING PLAN FOR:
VALLEY CENTER VIEW PROPERTIES RETAIL

SHEET: 2 OF SHEETS: 3

APPROVED
DIRECTOR OF PLANNING AND LAND USE
BY: DATE:

GRADING PERMIT NUMBER:

plot date: 2-06-09

APPENDIX B

Cadna Analysis Data and Results

Noise Attenuation by Distance Calculation

Job: Automated Car Wash
Job #: S190512
Date: 7/29/2019
Source: Dryers (Quantity: 13)
Receiver: West (Across Miller Road)

Noise Source

Noise Level (dBA) 98 at 3.28 feet

Distances

Source Elevation 0 feet at 6 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 116 feet

Path Calculation

Source to Receiver Direct Path Distance: **116** feet

Sound Pressure Level **67.0** at 116 feet

Summation

Number of Sources: 3

Level during 8 hour day: **67.0**

Noise Attenuation by Distance Calculation

Job: Automated Car Wash
Job #: S190512
Date: 7/29/2019
Source: HVAC 1
Receiver: West (Across Miller Road)

Noise Source

Noise Level (dBA) 67 at 3.28 feet

Distances

Source Elevation 0 feet at 15 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 132 feet

Path Calculation

Source to Receiver Direct Path Distance: **132** feet

Sound Pressure Level **34.9** at 132 feet

Noise Attenuation by Distance Calculation

Job: Automated Car Wash
Job #: S190512
Date: 7/29/2019
Source: HVAC 2
Receiver: West (Across Miller Road)

Noise Source

Noise Level (dBA) 67 at 3.28 feet

Distances

Source Elevation 0 feet at 19 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 189 feet

Path Calculation

Source to Receiver Direct Path Distance: **190** feet

Sound Pressure Level **31.8** at 190 feet

Eilar Associates, Inc.
210 South Juniper Street, Suite 100
Escondido, California 92025-4230
Phone: (760) 738-5570

Date: 29 Jul 2019

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receivers

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(m)		(m)	(m)	(m)
Cal			67.0	67.0	60.0	55.0				1.52	r	120.45	140.09	1.52

Point Sources

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night						X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(m²)		(min)	(min)	(min)	(dB)	(Hz)		(m)		(m)	(m)	(m)
Dryer 42.1	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	159.12	138.82	1.83
Dryer 42.2	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	160.45	137.96	1.83
Dryer 42.3	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	159.15	137.05	1.83
Dryer 43.1	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	157.42	139.82	1.83
Dryer 43.2	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	157.44	138.78	1.83
Dryer 43.3	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	158.73	137.95	1.83
Dryer 43.4	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	157.51	137.07	1.83
Dryer 43.5	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	157.52	136.00	1.83
Dryer 44.1	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	155.75	139.50	1.83
Dryer 44.2	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	157.02	138.86	1.83
Dryer 44.3	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	155.79	137.85	1.83
Dryer 44.4	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	157.11	136.91	1.83
Dryer 44.5	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	1.83	r	155.86	136.17	1.83
AC1	+		77.6	77.6	77.6	Lw	S4		0.0	0.0	0.0							0.0		(none)	4.66	r	160.01	132.17	4.66
AC2	+		77.6	77.6	77.6	Lw	S4		0.0	0.0	0.0							0.0		(none)	5.88	r	177.94	135.35	5.88

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)												Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	
15HP Tech 21 - No PowerLock	S1	Lw (c)			99.1	103.1	100.0	100.5	101.6	99.7	97.2	94.0	106.3	109.1	Manufacturer
15HP Tech 21 - PowerLock Open	S2	Lw (c)			95.1	99.1	96.0	96.5	97.6	95.7	93.2	90.0	102.3	105.1	Manufacturer
15HP Tech 21 - PowerLock Closed	S3	Lw (c)			90.5	94.5	91.4	91.9	93.0	91.1	88.6	85.4	97.7	100.5	Manufacturer
Carrier 48HC05	S4	Lw			84.7	83.6	77.1	74.6	72.3	68.3	64.7	60.9	77.6	88.0	Manufacturer

Eilar Associates, Inc.
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Phone: (760) 738-5570

Date: 03 Aug 2022

Calculation Configuration

Configuration	
Parameter	Value
General	
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receivers

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height		Coordinates		
			Day	Night	Day	Night	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1			46.2	46.2	50.0	45.0				5.00	r	429.25	538.83	1351.18
R2			42.2	42.2	50.0	55.0				4.99	r	247.44	528.58	1361.06
C3			44.3	44.3	60.0	55.0				5.00	r	395.17	459.60	1343.82
C4			46.8	46.8	60.0	55.0				5.00	r	383.10	373.29	1331.69
C5			43.3	43.3	60.0	55.0				5.00	r	383.52	277.02	1327.55
C6			40.2	40.2	60.0	55.0				5.00	r	522.86	151.14	1326.59
C7			41.6	41.6	60.0	55.0				5.00	r	780.76	276.74	1334.87
C8			46.1	46.1	60.0	55.0				5.00	r	777.28	373.98	1345.96
C9			50.9	50.9	60.0	55.0				5.00	r	776.01	439.82	1348.61

Point Sources

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night						X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	dB(A)	dB(A)	dB(A)		(ft²)		(min)	(min)	(min)	(dB)	(Hz)		(ft)		(ft)	(ft)	(ft)
Dryer 42.1	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	522.05	455.45	1335.01
Dryer 42.2	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	526.41	452.64	1335.01
Dryer 42.3	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	522.14	449.62	1335.01
Dryer 43.1	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	516.46	458.71	1335.01
Dryer 43.2	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	516.54	455.31	1335.01
Dryer 43.3	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	520.76	452.60	1335.01
Dryer 43.4	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	516.76	449.71	1335.01
Dryer 43.5	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	516.80	446.18	1335.01
Dryer 44.1	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	510.99	457.68	1335.01
Dryer 44.2	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	515.17	455.57	1335.01
Dryer 44.3	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	511.12	452.25	1335.01
Dryer 44.4	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	515.47	449.19	1335.01
Dryer 44.5	+		97.7	97.7	97.7	Lw	S3		0.0	0.0	0.0							0.0		(none)	6.00	r	511.34	446.76	1335.01
AC1	+		77.6	77.6	77.6	Lw	S4		0.0	0.0	0.0							0.0		(none)	15.29	r	524.97	433.63	1344.29
AC2	+		77.6	77.6	77.6	Lw	S4		0.0	0.0	0.0							0.0		(none)	19.29	r	583.79	444.06	1348.29

Barriers

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height			
			left	right		horz.	vert.	Begin		End	
					(ft)	(ft)	(ft)	(ft)		(ft)	
CW1								16.01	r		
CW2								16.01	r		
CW3						25.10	0.00	16.01	r		
CW4					8.01			16.01	r		
CW5					6.00			16.01	r		
Miti Barrier West	+							11.83	r		
Miti Canopy West	+					21.65	0.00	11.83	r		

Geometry - Barriers

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
			left	right		horz.	vert.	Begin		End		x	y	z	Ground
					(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
CW1								16.01	r			493.62	459.78	1345.01	1329.00
												493.43	464.34	1345.01	1329.00
												548.59	465.83	1345.01	1329.00
												603.63	467.25	1345.01	1329.00
												603.74	462.74	1345.01	1329.00
CW2								16.01	r			494.10	443.80	1345.01	1329.00
												494.26	439.25	1345.01	1329.00
												604.40	442.22	1345.01	1329.00
												604.21	446.71	1345.01	1329.00
CW3						25.10	0.00	16.01	r			493.43	464.34	1345.01	1329.00
												603.63	467.25	1345.01	1329.00
CW4					8.01			16.01	r			493.43	464.34	1345.01	1329.00
												494.26	439.25	1345.01	1329.00
CW5					6.00			16.01	r			603.63	467.25	1345.01	1329.00
												604.40	442.22	1345.01	1329.00
Miti Barrier West	+							11.83	r			493.54	460.77	1340.83	1329.00
												477.97	460.28	1341.93	1330.10
												469.77	453.79	1343.05	1331.22
												464.37	446.61	1343.17	1331.34
												461.02	439.30	1342.66	1330.83
												458.28	429.32	1342.77	1330.94
												455.75	420.16	1343.11	1331.28
Miti Canopy West	+					21.65	0.00	11.83	r			493.54	460.77	1340.83	1329.00
												477.97	460.28	1341.93	1330.10
												469.77	453.79	1343.05	1331.22
												464.37	446.61	1343.17	1331.34
												461.02	439.30	1342.66	1330.83
												458.28	429.32	1342.77	1330.94
												455.75	420.16	1343.11	1331.28

Buildings

Name	M.	ID	RB	Residents	Absorption	Height	
						Begin	
						(ft)	
Carwash Mechanical Room			x	0		16.01	r
C-Store Building			x	0		12.01	r

Geometry - Buildings

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
Carwash Mechanical Room			x	0		16.01	r	493.43	464.34	1345.01	1329.00
								493.17	474.46	1345.01	1329.00
								548.29	475.91	1345.01	1329.00
								548.59	465.83	1345.01	1329.00
								493.43	464.34	1345.01	1329.00
C-Store Building			x	0		12.01	r	489.29	403.46	1341.01	1329.00
								488.21	439.08	1341.01	1329.00
								494.26	439.25	1341.01	1329.00
								604.40	442.22	1341.01	1329.00
								610.37	442.38	1341.01	1329.00
								611.43	408.67	1341.01	1329.00
								574.41	407.68	1341.01	1329.00
								574.43	405.76	1341.01	1329.00
								489.29	403.46	1341.01	1329.00

Terrain Contours

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(ft)	(ft)	(ft)	(ft)	(ft)
1320				1320.01		212.60	237.89	1320.01
						221.90	209.47	1320.01
						230.00	206.54	1320.01
						247.74	188.63	1320.01
						258.77	189.14	1320.01
						302.00	173.47	1320.01
						348.17	170.54	1320.01
						394.34	172.61	1320.01
						411.39	161.93	1320.01
1322				1322.01		550.07	167.96	1322.01
						528.74	175.62	1322.01
						518.35	169.60	1322.01
						437.68	199.14	1322.01
						514.52	235.78	1322.01
						388.42	248.97	1322.01
						338.50	228.35	1322.01
						324.82	256.13	1322.01
						295.05	259.21	1322.01
						258.53	249.22	1322.01
						257.84	283.67	1322.01
						232.00	274.37	1322.01
						226.15	289.53	1322.01
1324				1324.02		714.82	168.85	1324.02
						589.85	206.04	1324.02
						649.45	228.26	1324.02
						653.33	234.72	1324.02
						593.17	270.00	1324.02
						470.10	268.48	1324.02
						460.12	277.16	1324.02
						456.71	285.16	1324.02
						455.19	294.93	1324.02
						449.12	343.87	1324.02
						431.53	349.08	1324.02
						431.43	352.34	1324.02
						407.42	347.11	1324.02
						366.83	354.27	1324.02
1328				1328.02		652.44	321.29	1328.02
						567.14	277.89	1328.02
						473.60	276.37	1328.02
						465.78	281.79	1328.02
						461.60	291.67	1328.02
						457.58	292.11	1328.02
						457.28	305.49	1328.02
1330				1330.02		386.42	399.93	1330.02
						397.27	402.32	1330.02

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(ft)	(ft)	(ft)	(ft)	(ft)
						397.71	406.66	1330.02
						415.72	397.55	1330.02
						436.56	401.24	1330.02
						436.13	394.51	1330.02
						454.14	376.28	1330.02
						456.53	358.26	1330.02
						457.71	311.59	1330.02
						482.46	310.72	1330.02
						624.65	381.55	1330.02
1330				1330.02		784.43	277.52	1330.02
						815.61	286.54	1330.02
						869.48	317.99	1330.02
						883.98	343.42	1330.02
						908.59	364.75	1330.02
						926.36	374.87	1330.02
						941.12	455.18	1330.02
						955.88	456.92	1330.02
						1006.67	527.24	1330.02
1332				1332.02		507.93	398.05	1332.02
						471.97	400.51	1332.02
						439.56	410.63	1332.02
						440.93	416.10	1332.02
						419.46	415.82	1332.02
						401.96	425.26	1332.02
1340				1340.03		918.65	694.00	1340.03
						907.37	477.38	1340.03
						883.06	406.19	1340.03
						863.52	376.24	1340.03
						797.97	332.83	1340.03
						769.37	338.68	1340.03
						749.96	378.06	1340.03
						730.54	402.68	1340.03
						669.28	459.83	1340.03
						660.33	460.52	1340.03
						659.98	471.72	1340.03
1344				1344.03		889.83	697.32	1344.03
						893.62	522.29	1344.03
						891.89	481.29	1344.03
						874.32	426.50	1344.03
						800.59	423.40	1344.03
						788.53	432.02	1344.03
						786.46	547.79	1344.03
						781.64	552.95	1344.03
						654.84	549.51	1344.03
						654.84	542.27	1344.03
						637.27	542.27	1344.03
						607.24	493.87	1344.03

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(ft)	(ft)	(ft)	(ft)	(ft)
						502.77	490.32	1344.03
						468.86	513.02	1344.03
						437.63	531.88	1344.03
1350				1350.03		841.30	713.17	1350.03
						854.39	642.88	1350.03
						863.35	541.58	1350.03
						872.31	509.54	1350.03
						867.48	467.50	1350.03
						849.22	437.53	1350.03
						805.12	434.77	1350.03
						800.98	440.28	1350.03
						796.51	553.30	1350.03
						793.40	558.12	1350.03
						783.93	564.50	1350.03
						549.56	558.48	1350.03
						536.44	548.63	1350.03
						525.77	560.39	1350.03
						529.87	565.59	1350.03
						500.34	567.78	1350.03
						493.77	591.02	1350.03
						441.54	597.86	1350.03
1360				1350.16		764.41	719.72	1350.16
						783.70	677.34	1350.16
						760.96	670.45	1350.16
						734.08	685.26	1350.16
						724.44	678.72	1350.16
						750.28	610.15	1350.16
						781.98	639.78	1350.16
						811.61	608.08	1350.16
						825.05	567.77	1350.16
						829.87	490.93	1350.16
						818.85	467.16	1350.16
						817.47	554.67	1350.16
						811.95	569.15	1350.16
						799.55	578.45	1350.16
						782.32	585.34	1350.16
						592.82	579.83	1350.16
						582.15	583.38	1350.16
						576.95	593.77	1350.16
						585.16	645.74	1350.16
						571.76	658.32	1350.16
						573.67	665.43	1350.16
						548.51	670.35	1350.16
						524.20	711.15	1350.16
1329 pad				1329.00		492.07	475.40	1329.00
						493.10	439.97	1329.00
						487.51	439.86	1329.00

Name	M.	ID	OnlyPts	Height		Coordinates		
				Begin	End	x	y	z
				(ft)	(ft)	(ft)	(ft)	(ft)
						488.47	402.74	1329.00
						612.85	405.67	1329.00
						611.38	443.14	1329.00
						605.09	443.05	1329.00
						604.49	468.55	1329.00
						549.54	467.00	1329.00
						549.28	477.25	1329.00
						492.07	475.40	1329.00
415				1361.55		345.68	548.40	1361.55
						133.46	588.33	1361.55
						49.23	688.42	1361.55
corners						1128.92	718.50	1335.30
						1128.92	19.49	1325.46
						10.94	16.21	1315.62
						13.13	708.66	1361.55

Height Points

Name	M.	ID	Coordinates		
			X	Y	Z
			(ft)	(ft)	(ft)
406			71.19	393.60	1332.02
401			42.55	48.88	1315.62
404			1100.92	48.88	1325.46
407			1107.87	675.75	1335.30
405			1107.87	371.03	1328.74

Sound Level Spectra

Name	ID	Type	1/3 Oktave Spectrum (dB)																			
			Weight.	25	31.5	40	50	63	80	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000
15HP Tech 21 - No PowerLock	S1	Lw (c)						99.1			103.1			100.0			100.5			101.6			99.7
15HP Tech 21 - PowerLock Open	S2	Lw (c)						95.1			99.1			96.0			96.5			97.6			95.7
15HP Tech 21 - PowerLock Closed	S3	Lw (c)						90.5			94.5			91.4			91.9			93.0			91.1
Carrier 48HC05	S4	Lw						84.7			83.6			77.1			74.6			72.3			68.3

APPENDIX C

Pertinent Sections of the County of San Diego Noise Ordinance

Cross reference(s)--Definitions, § 12.101 et seq.

SEC. 36.403. SOUND LEVEL MEASUREMENT.

(a) A sound level measurement made pursuant to this chapter shall be measured with a sound level meter using A-weighting and a "slow" response time, as these terms are used in ANSI S1.1-1994 or its latest revision.

(b) Each measurement shall be conducted at the boundary line of the property on which the noise source is located or any place on the affected property, but no closer than five feet from the noise source.

(c) The sound level meter shall be calibrated and adjusted by means of an acoustical calibrator of the coupler-type to assure meter accuracy within the tolerances in the ANSI specifications for sound level meters, ANSI S1.4-1983 or its latest revision. The sound level meter shall be used as provided in the manufacturer's instructions.

(Amended by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 36.404. GENERAL SOUND LEVEL LIMITS.

(a) Except as provided in section 36.409 of this chapter, it shall be unlawful for any person to cause or allow the creation of any noise, which exceeds the one-hour average sound level limits in Table 36.404, when the one-hour average sound level is measured at the property line of the property on which the noise is produced or at any location on a property that is receiving the noise.

TABLE 36.404
SOUND LEVEL LIMITS IN DECIBELS (dBA)

ZONE	TIME	ONE-HOUR AVERAGE SOUND LEVEL LIMITS (dBA)
(1) RS, RD, RR, RMH, A70, A72, S80, S81, S90, S92, RV, and RU with a General Plan Land Use Designation density of less than 10.9 dwelling units per acre.	7 a.m. to 10 p.m.	50
	10 p.m. to 7 a.m.	45
(2) RRO, RC, RM, S86, V5, RV and RU with a General Plan Land Use Designation density of 10.9 or more dwelling units per acre.	7 a.m. to 10 p.m.	55
	10 p.m. to 7 a.m.	50
(3) S94, V4, and all commercial zones.	7 a.m. to 10 p.m.	60
	10 p.m. to 7 a.m.	55
(4) V1, V2	7 a.m. to 7 p.m.	60
V1, V2	7 p.m. to 10 p.m.	55
V1	10 p.m. to 7 a.m.	55
V2	10 p.m. to 7 a.m.	50
V3	7 a.m. to 10 p.m.	70
	10 p.m. to 7 a.m.	65
(5) M50, M52, and M54	Anytime	70

APPENDIX D

Manufacturer Data Sheets

OCT / 07

POWERLOCK SOUND PRESSURE LEVELS
Individual Fan Study

10HP Tech 21 Dryer

10HP at 1 meter **without** PowerLock	=	92DB
10HP at 1 meter with PowerLock **open**	=	88DB
10HP at 1 meter with PowerLock **closed**	=	85DB

15HP Tech 21 Dryer

15HP at 1 meter **without** PowerLock	=	96DB
15HP at 1 meter with PowerLock **open**	=	92DB
15HP at 1 meter with PowerLock **closed**	=	87DB

On average, a site will appreciate a 30-50% sound reduction, depending on its dryer package, valve cycling, and wash area.

Bob MacNeil
R&D

48HC
High Efficiency
Gas Heat/Electric Cooling
Packaged Rooftop with EnergyX® System
3 to 12.5 Nominal Tons

Carrier
turn to the experts

Product Data

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the environmentally sound refrigerant

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Certified System
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Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program For verification of certification for individual products, go to www.ahridirectory.org.

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ASHRAE 90.1 COMPLIANT

Table 7 – SOUND PERFORMANCE TABLE

UNIT	COOLING STAGES	OUTDOOR SOUND (dB) AT 60								
		A–WEIGHTED	63	125	250	500	1000	2000	4000	8000
A04	1	76	78.2	78.0	74.2	73.3	70.6	66.0	62.4	56.9
A05	1	78	84.7	83.6	77.1	74.6	72.3	68.3	64.7	60.9
A06	1	77	87.5	82.5	76.1	73.6	71.3	67.1	64.1	60.0
A07	1	82	90.1	82.6	81.0	79.4	77.0	73.0	70.4	66.7
D08	2	82	90.6	84.3	80.2	79.3	77.1	72.2	67.4	63.7
D09	2	82	88.6	85.0	81.6	79.5	77.4	74.1	71.0	66.3
D12	2	87	85.9	87.9	85.6	84.4	82.8	78.5	74.9	72.5
D14	2	83	89.3	86.0	82.9	80.7	78.5	73.6	69.6	64.5

LEGEND
dB – Decibel
NOTES:

1. Outdoor sound data is measure in accordance with AHRI.
2. Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environmental factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.
3. A–weighted sound ratings filter out very high and very low frequencies, to better approximate the response of “average” human ear. A–weighted measurements for Carrier units are taken in accordance with AHRI.

Table 8 – MINIMUM - MAXIMUM AIRFLOW RATINGS - NATURAL GAS & PROPANE

UNIT	HEAT LEVEL	COOLING		HEATING	
		MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
48HC**04	LOW	900	1500	990	2190
	MED			1000	1550
	HIGH			–	–
48HC**05	LOW	1200	2000	990	2190
	MED			1330	2460
	HIGH			1390	2220
48HC**06	LOW	1500	2500	990	2730
	MED			1330	2880
	HIGH			1390	2780
48HC**07	LOW	1800	3000	990	3640
	MED			1330	4750
	HIGH			1390	3750
48HC**08	LOW	2250 (1508)	3750	1900	4750
	MED			2100	3900
	HIGH			2270	3780
48HC**09	LOW	2550 (1625)	4250	1900	4750
	MED			2100	4560
	HIGH			2270	4250
48HC**12	LOW	3000 (2171)	5000	2100	5470
	MED			2620	5670
	HIGH			2650	5290
48HC**14	LOW	3750 (2754)	6250	1880	7500
	MED			2450	6750
	HIGH			3000	7200

( ) With Staged Air Volume (SAV) 2–speed indoor fan motor system only. Values are minimum for VFD controller at 40Hz.