

NOISE IMPACT ANALYSIS

Verizon Wireless
Site Name: "Downtown Julian"
2502 Washington Street
Julian, California 92036

Prepared For

Milestone Wireless
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Job #B01001N1

August 2, 2012

SDC DPLU RCVD 09-05-12

ZAP00-044W¹

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1.0 EXECUTIVE SUMMARY

The existing Verizon Wireless telecommunications facility, known as Downtown Julian, currently consists of an unmanned telecommunications equipment room located on the second story of an existing building. Verizon proposes to add a new emergency generator to the site, to be located outside of the existing lease area. The project site is located at 2502 Washington Street in the unincorporated community of Julian, County of San Diego, California.

The purpose of this report is to assess equipment noise impacts from the equipment on the existing and proposed Verizon facility, and to determine if additional mitigation is necessary and feasible to reduce project related property line noise impacts to less than significant. Noise limits specified within the County of San Diego Noise Ordinance must be met at neighboring property lines.

Based on the Verizon project information available, calculations show that as designed, the noise impacts from the unmanned operation of the Verizon facility will exceed County of San Diego property line noise limits at the north and east property lines and at the on-site hotel structure. Mitigation is required to bring these noise levels into compliance, and is detailed in Section 5.2.

2.0 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 the proposed mitigation will reduce the noise impacts to less than significant levels.

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.

Sound Pressure is the actual noise experienced by a human or registered by a sound level instrument. When Sound Pressure is used to describe a noise source, the distance from the noise source must be specified in order to provide complete information. Sound Power, on the other hand, is a specialized analytical method to provide information without the distance requirement, but it may be used to calculate the sound pressure at any desired distance.

2.1 Project Location

The subject property is located at 2502 Washington Street in the unincorporated community of Julian, County of San Diego, California. The Assessor's Parcel Number (APN) is 250-090-39. The owner of the property is Darrel Straube. There are existing residential buildings occupying the lot.

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.

2.2 Project Description

The proposed project includes the installation of a 30 kW Kohler emergency backup generator at the existing wireless facility. The generator is proposed to be located outside of the existing lease area, mounted on a concrete pad within an eight-foot high covered enclosure. The generator is not expected to be operational except in the event of a power failure, although it will typically run for 15 minutes, once a week; during mid-day on a weekday, for test and maintenance purposes.

For additional project details and equipment positioning, please refer to the site plans, dated August 1, 2012, provided in Appendix A.

2.3 Applicable Noise Standards

The noise regulations applicable to this project are contained within the County of San Diego Municipal Code, which specifies noise limits based on the zoning designation of the properties in question. The subject property is zoned RC (Residential Commercial). Neighboring properties are zoned RC/S80 (special purpose) to the north, RC/RMH7 (residential/mobile home) to the east, and RC to the south. No zoning information was found for the property to the west of the project site, which is currently vacant. It was assumed that noise levels at this property line would need to meet the same limits as residential properties to the north and east. Properties zoned S80 and RMH7 have noise limits of 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. RC zones have noise limits of 55 dBA between the hours of 7 a.m. and 10 p.m. and 50 dBA between the hours of 10 p.m. and 7 a.m. (applicable at the south property line and the on-site hotel building). The ordinance states that the noise limit on a boundary between two zones is the arithmetic mean of the respective limits for the two zones. For this reason, the noise limits at the north, east, and west property lines are 52.5 dBA during the daytime hours, and 47.5 dBA during the nighttime hours. Pertinent sections of the County of San Diego Noise Ordinance are provided as Appendix B.

3.0 ENVIRONMENTAL SETTING

3.1 Existing Noise Environment

The existing noise environment is fairly quiet. The existing Verizon equipment on site consists only of an indoor equipment shelter, located on the second story of an on-site building. As this equipment is located indoors and is not associated with any outdoor mechanical equipment, there is no significant noise from this equipment area. No other noise source was deemed significant.

3.1.1 Ambient Noise Monitoring

An on-site inspection was conducted at 10:20 a.m. on Friday, October 8, 2010. The weather conditions were as follows: winds at 3-7 mph, low humidity, and temperatures in the mid 50's. An ambient noise measurement was taken near the southeast corner of the subject property for a duration of ten minutes. The microphone position was approximately five feet above the existing grade. The measured noise level can be seen in Table 1. Noise sources in the area were low, and included birds, light aircraft noise, occasional traffic, and people talking.

Table 1. On-Site Noise Measurement Conditions and Results	
Date	Friday, October 8, 2010
Time	10:20 a.m. – 10:30 a.m.
Conditions	Clear skies, winds at 3-7 mph, temperature in the mid 50's with low humidity
Measured Noise Level	47.7 dBA L _{EQ}

3.2 Future Noise Environment

The future noise environment in the vicinity of the project site will be primarily a result of the same noise sources, as well as the noise generated by the proposed equipment at the Verizon facility.

Noise levels for the Kohler 30 kW generator with and without the manufacturer-provided sound and weather enclosure were provided by Brian Glenn of Bay City Electric Works, an installation vendor for Verizon Wireless. Broadband frequency noise levels were given for the measurements which were taken at 23 feet from the generator. For this reason, octave band noise levels were approximated using noise measurements made of a Kohler 40 kW generator for a previous Eilar Associates acoustical report. The resultant estimated noise spectrums are shown below in Table 2. More information is provided in Appendix C: Manufacturer Data Sheets, and Appendix D: Pertinent Sections of Previous Eilar Associates Acoustical Report.

Table 2. Estimated Sound Pressure Level of Kohler 30 kW Generator, at 23 Feet from Source									
Source	Octave Frequency (Hz)								Total (dBA)
	63	125	250	500	1K	2K	4K	8K	
Generator Without Sound Enclosure	78.3	78.3	79.4	72.3	76.3	73.5	66.5	62.3	80.0
Generator With Sound Enclosure	63.6	63.6	64.7	57.6	61.7	58.8	51.8	47.1	65.4

4.0 METHODOLOGY AND EQUIPMENT

4.1 Methodology

4.1.1 Cadna Noise Modeling Software

Modeling of the outdoor noise environment is accomplished using Cadna Version 3.7, 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 CAD model and uses the most up-to-date calculation standards to predict outdoor noise impacts.

4.1.2 Sound Insulation Prediction

Sound Transmission Class (STC) is a single number rating calculated in accordance with ASTM E413, using values of sound transmission loss. It provides an estimate of the sound performance of a partition, window, or door in sound insulation problems. Further information can be provided upon request.

Modeling of wall assemblies using building plan details is accomplished using INSUL Version 6.1, which is a model-based computer program, developed by Marshall Day Acoustics for predicting the sound insulation of walls, floors, ceilings and windows. It is acoustically based on theoretical models that require only minimal material information that can make reasonable estimates of the sound transmission loss (TL) and STC for use in sound insulation calculations. It models individual materials using the simple mass law and coincidence frequency approach and can model more complex assembly partitions as well. It has evolved over several versions into an easy to use tool and has refined the theoretical models by continued comparison with laboratory tests to provide acceptable accuracy for a wide range of constructions. INSUL model performance comparisons with laboratory test data show that the model generally predicts the performance of a given assembly within 3 STC points.

4.2 Measurement Equipment

Some or all of the following equipment was used at the site to measure existing ambient noise levels:

- Larson Davis Model 824, Type 1 Sound Level Meter, S/N 0343, with microphone & windscreen
- Larson Davis Model CA250, Type 1 Calibrator, S/N 2625
- Distance measurement wheel, digital camera

The sound level meter was field-calibrated immediately prior to the noise measurement and checked afterwards, to ensure accuracy. All sound level measurements conducted and presented in this report, in accordance with the regulations, were made with sound level meters that conform to the American National Standards Institute specifications for sound level meters (ANSI S1.4-1983, R2001). All instruments are maintained with National Bureau of Standards traceable calibration, per the manufacturers' standards.

5.0 IMPACTS AND MITIGATION

5.1 Unmitigated Impacts

Noise levels of the generator without the sound enclosure were calculated using Cadna, assuming the STC rating of the proposed enclosure walls to be approximately STC 38, based on an evaluation of provided shelter details (see Appendix E) using the methodology described in Section 4.1.2. For more information, please refer to Appendix F: Sound Insulation Prediction Results. Exterior wall elements such as the proposed metal door and acoustical louver were also taken into account. Transmission loss data for the proposed acoustical louver was provided by the manufacturer and is provided in Appendix C. For purposes of a worst-case analysis, the metal door was evaluated without acoustical door seals. Results of this analysis are shown in Table 4 below.

Unmitigated noise contours are also shown in Figure 5, and additional information can be found in Appendix G: Cadna Analysis Data and Results.

Table 4. Calculated Verizon Wireless Facility Noise Impact Levels Without Mitigation				
Receiver Number	Description	Approximate Distance (feet)	Noise Limit (dBA)	Unmitigated Noise Level (dBA)
R-1	North Property Line	47	47.5	58.2
R-2	South Property Line	270	50.0	39.2
R-3	East Property Line	15	47.5	65.3
R-4	West Property Line	325	47.5	40.2
R-5	On-Site Hotel Building	60	50.0	54.3

As shown above, noise levels at several locations will exceed the applicable noise limits set by the County of San Diego without mitigation.

5.2 Mitigated Noise Impacts

In order to bring noise levels into compliance with applicable County of San Diego noise limits, the following mitigation measures must be implemented into the project design:

1. The generator must be equipped with the manufacturer sound enclosure.
2. The metal door providing access to the proposed equipment shelter must 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. Pemko and Reese are manufacturers of such products, and product data sheets are provided in Appendix C.

Noise levels were calculated with the above mitigation measures in place, and results are shown below in Table 5. Figure 6 shows mitigated noise contours, and additional information is provided in Appendix E: Cadna Analysis Data and Results.

Table 5. Calculated Verizon Wireless Facility Noise Impact Levels With Mitigation				
Receiver Number	Description	Approximate Distance (feet)	Noise Limit (dBA)	Mitigated Noise Level (dBA)
R-1	North Property Line	47	47.5	40.7
R-2	South Property Line	270	50.0	24.4
R-3	East Property Line	15	47.5	45.0
R-4	West Property Line	325	47.5	23.1
R-5	On-Site Hotel Building	60	50.0	39.4

As shown above, with the two mitigation measures implemented into the design, proposed equipment noise levels are expected to be in compliance with County of San Diego noise limits at all surrounding property lines and on-site hotel buildings.

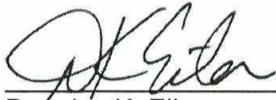
6.0 CONCLUSION

As designed, the proposed Verizon Wireless equipment will not meet the applicable noise limits defined by the County of San Diego. With the manufacturer sound enclosure installed on the generator and appropriate door seals on the exterior door of the equipment shelter, noise levels are expected to comply with County of San Diego noise limits at all surrounding property lines and the on-site hotel buildings.

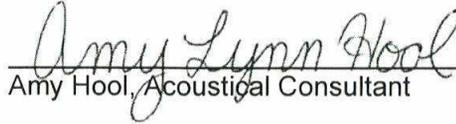
This analysis is based upon a current worst case scenario of anticipated, typical equipment for this type of wireless facility. Substitution of equipment with higher noise emission levels may invalidate the recommendations of this study. These conclusions and recommendations are based on the most up-to-date,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

7.0 CERTIFICATION

This report is based on the related project information received and measured noise levels, and represents a true and factual analysis of the acoustical impact issues associated with the proposed addition to the existing Verizon Wireless site known as "Downtown Julian," located at 2502 Washington Street in the unincorporated community of Julian, County of San Diego, California. This report was prepared by Amy Hool and Douglas Eilar.



Douglas K. Eilar,
Principal/Senior Acoustical Consultant

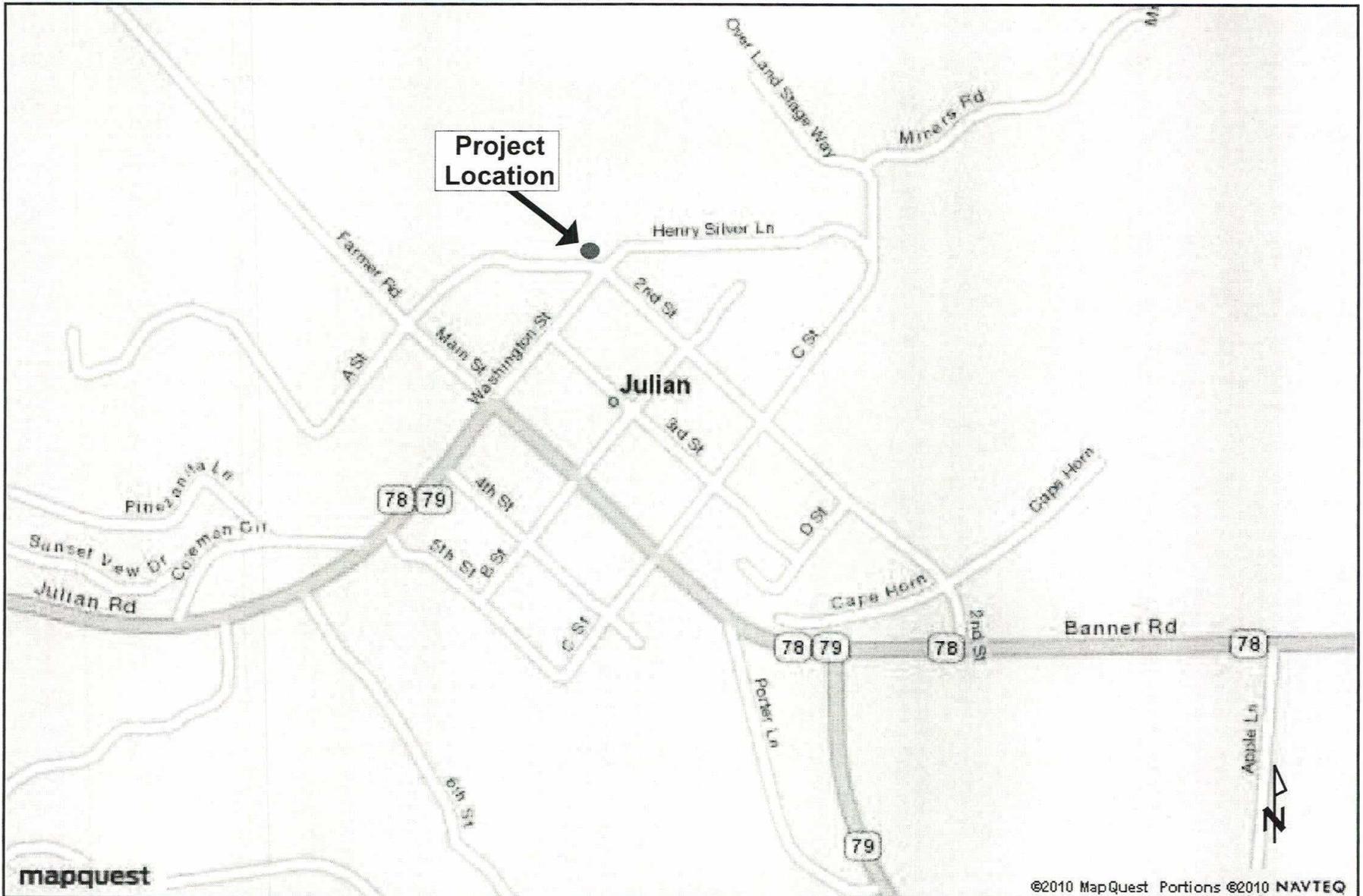


Amy Hool, Acoustical Consultant

8.0 REFERENCES

1. Beranek, Leo L., *Acoustical Measurements*, Published for the Acoustical Society of America by the American Institute of Physics, Revised Edition, 1988.
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. Harris, Cyril M., Ph.D., *Noise Control in Buildings*, Original Edition, 1994.
5. Hirschorn, Martin, *Noise Control Reference Handbook*, Revised Edition, 1989.
6. Irvine, Leland K. and Richards, Roy L., *Acoustics and Noise Control Handbook for Architects and Builders*, Original Edition, 1998.
7. Knudsen, Vern O. and Harris, Cyril M., *Acoustical Designing In Architecture*, American Institute of Physics for the Acoustical Society of America, 2nd Edition, 1978.
8. Raichel, Daniel R., *The Science and Applications of Acoustics*, American Institute of Physics Press for the Acoustical Society of America, 1st Edition, 2000.

FIGURES



mapquest

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 321 Willowspring Drive North
 Encinitas, California 92024
 760-738-5570

Vicinity Map
 Job #B01001N1

Figure 1



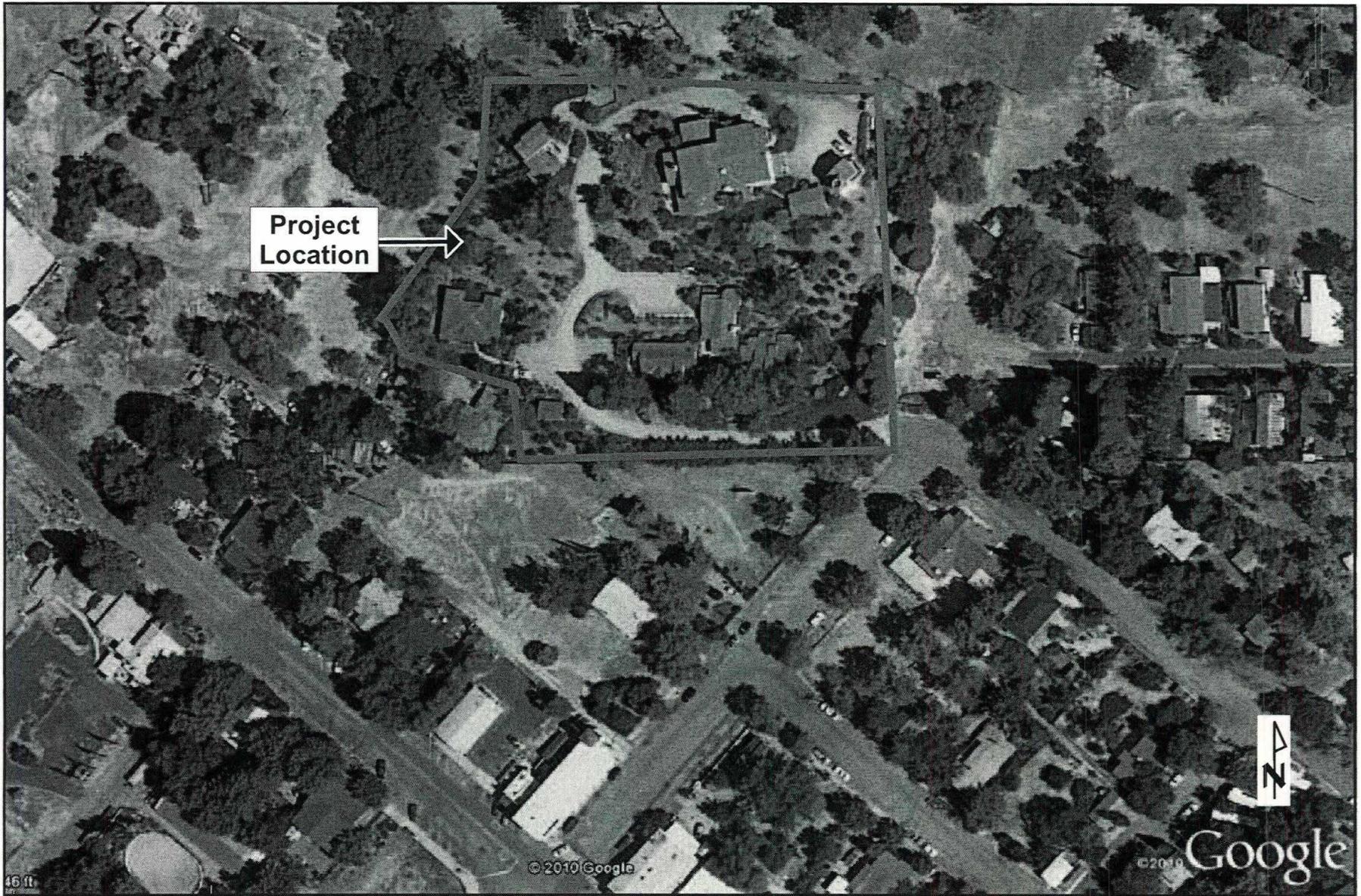
San Diego
County
Assessor's
Parcel Number:
250-090-39



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Assessor's Parcel Map
Job # B01001N1

Figure 2



Eilar Associates, Inc.
321 Willowspring Drive North
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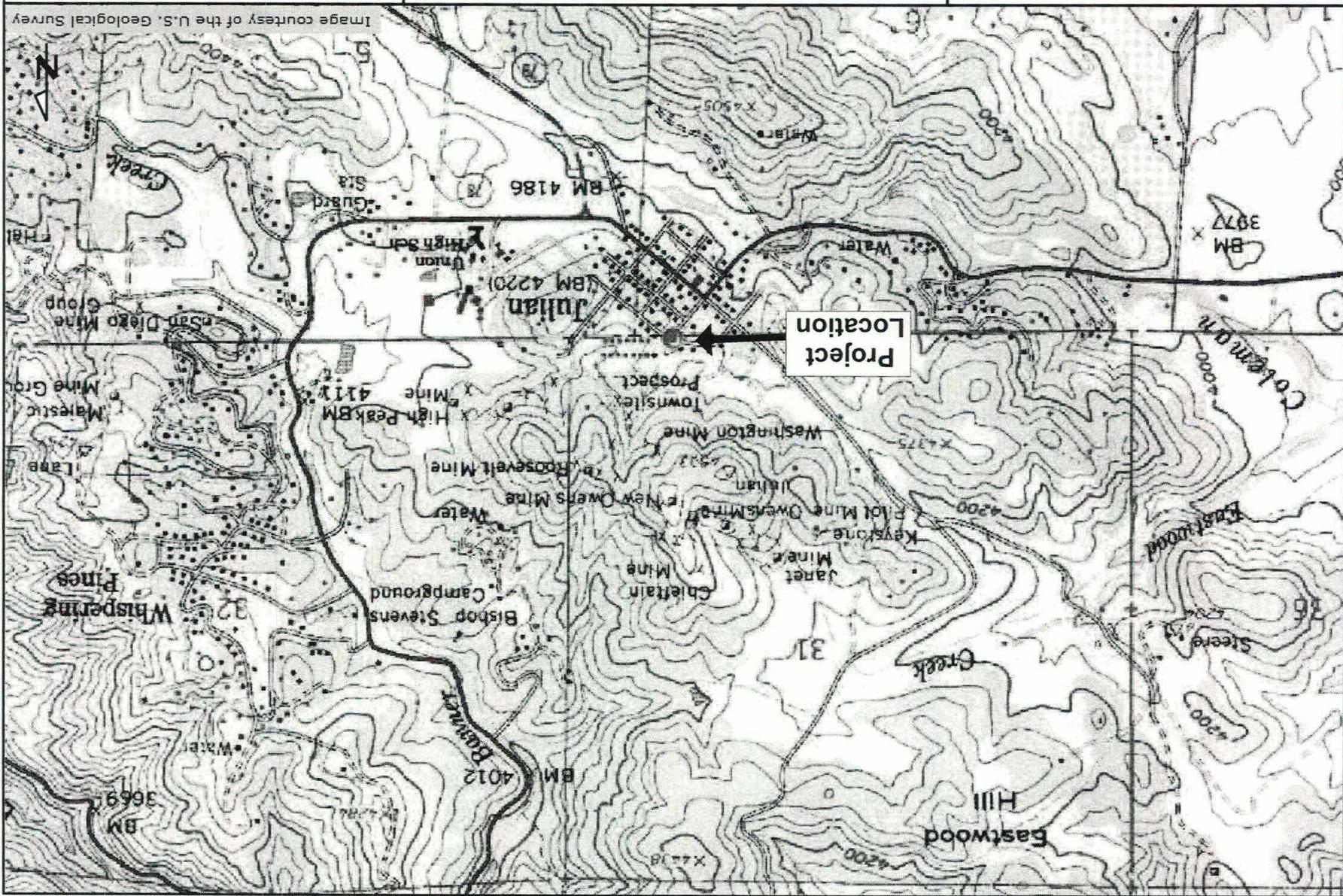
Satellite Aerial Photograph
Job # B01001N1

Figure 3

Eilar Associates, Inc.
321 Willowspring Drive North
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Topographic Map
Job # B01001N1

Figure 4

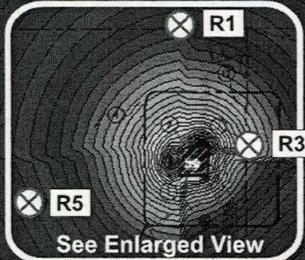
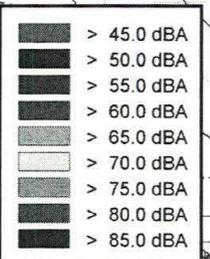
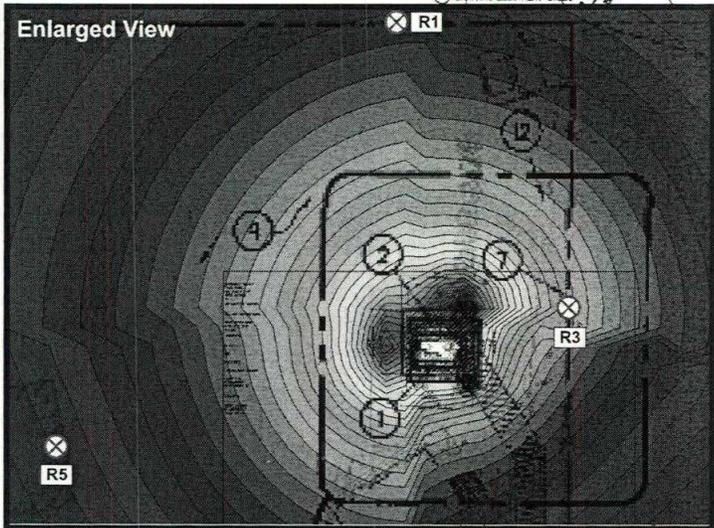


Calculated Noise Impact Levels Without Mitigation		
Receiver Number	Noise Limit (dBA)	Unmitigated Noise Level (dBA)
R-1	47.5	58.2
R-2	50.0	39.2
R-3	47.5	65.3
R-4	47.5	40.2
R-5	50.0	54.3

NOTES:

- ① NEW VERIZON WIRELESS 50 KW NOISE/EMERGENCY BACKUP GENERATOR WITH A 150 GALLON DIESEL FUEL TANK, MOUNTED INSIDE A NEW VERIZON WIRELESS 17'-4" X 11'-6" GENERATOR EQUIPMENT ENCLOSURE LOCATED OUTSIDE EXISTING VERIZON WIRELESS LEASE AREA.
- ② NEW VERIZON WIRELESS 17'-4" X 11'-6" SOUND ATTENUATED EQUIPMENT ENCLOSURE MOUNTED ON NEW 12"-12" X 12"-0" CONCRETE PAD WITH SPILL CONTAINMENT CURB.
- ③ NEW VERIZON WIRELESS 5'-0" WIDE NON-EXCLUSIVE UTILITY BASEMENT (SHOWN HATCHED).
- ④ EXISTING VERIZON WIRELESS EQUIPMENT ROOF LOCATED AT 2ND FLOOR OF EXISTING BUILDING AND LOCATION OF NEW VERIZON WIRELESS AUTOMATIC TRANSFER SWITCH.
- ⑤ EXISTING 3-STORY HOTEL.
- ⑥ EXISTING 1-STORY GARAGE BUILDING.
- ⑦ EXISTING BARBED-WIRE FENCE.
- ⑧ EXISTING PROPERTY LINE.
- ⑨ EXISTING GRAVEL AREA.
- ⑩ EXISTING BUILDING, TYPICAL.
- ⑪ EXISTING ACCESS ROAD.
- ⑫ EXISTING PROPANE TANK.
- ⑬ EXISTING EQUIPMENT SHED.

Enlarged View



NEW VERIZON WIRELESS GENERATOR AREA SEE DETAILED SITE PLAN ON SHEET 6-2

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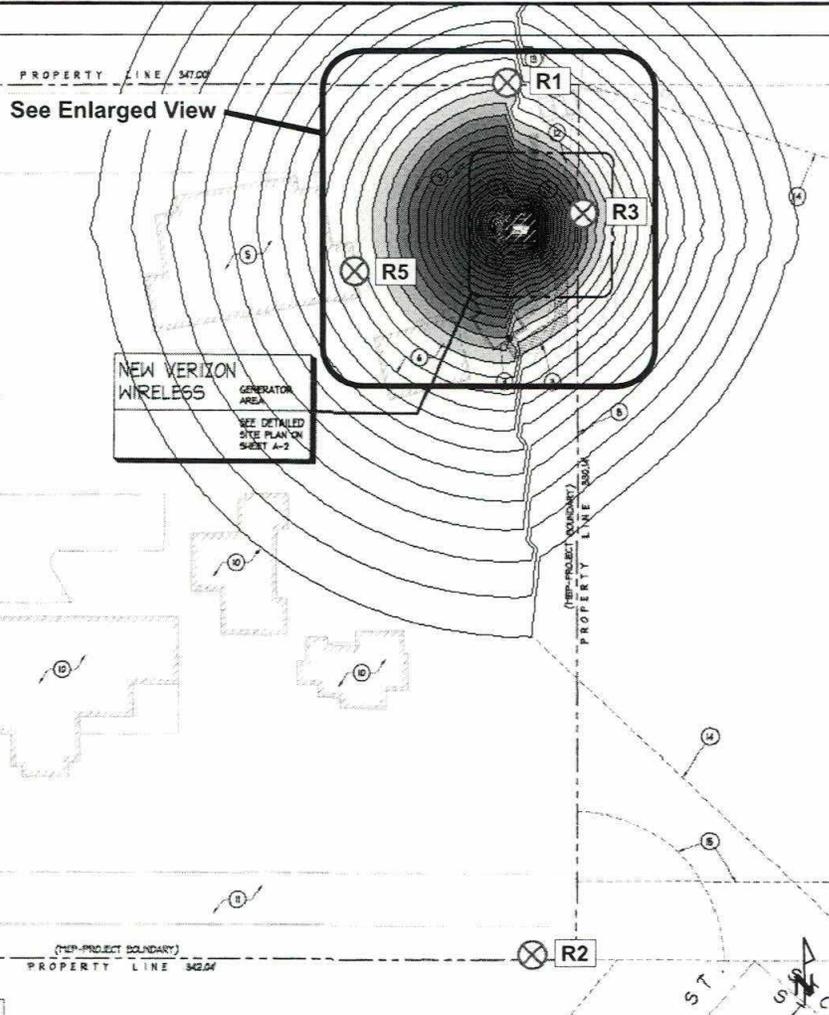
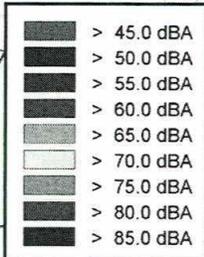
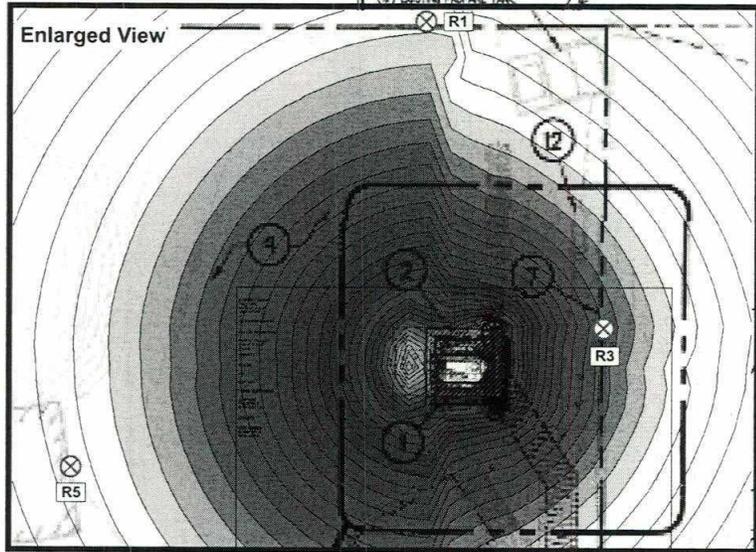
Site Plan Showing Unmitigated Noise Contours and Receiver Locations
Job # B01001N1

Figure 5

Calculated Noise Impact Levels With Mitigation		
Receiver Number	Noise Limit (dBA)	Mitigated Noise Level (dBA)
R-1	47.5	40.7
R-2	50.0	24.4
R-3	47.5	45.0
R-4	47.5	23.1
R-5	50.0	39.4

NOTES:

- ① NEW VERIZON WIRELESS BACKUP GENERATOR AT TANK, MOUNTED INSIDE X 12'-6" GENERATOR EQ. OUTSIDE EXISTING VERIZON WIRELESS EQUIPMENT ON NEW 12'-0" X 12'-6" SPILL CONTAINMENT CUR
- ② NEW VERIZON WIRELESS UTILITY EASEMENT (5'-6")
- ③ EXISTING VERIZON WIRELESS LOCATED AT 2ND FLOOR LOCATION OF NEW VERIZON TRANSFER SWITCH
- ④ EXISTING 3-STORY HOTEL
- ⑤ EXISTING 1-STORY BLDG.
- ⑥ EXISTING BARREL-WIRE FENCE
- ⑦ EXISTING PROPERTY LINE
- ⑧ EXISTING GRAVEL AREA
- ⑨ EXISTING BUILDING TYPICAL
- ⑩ EXISTING ACCESS ROAD
- ⑪ EXISTING PROPANE TANK



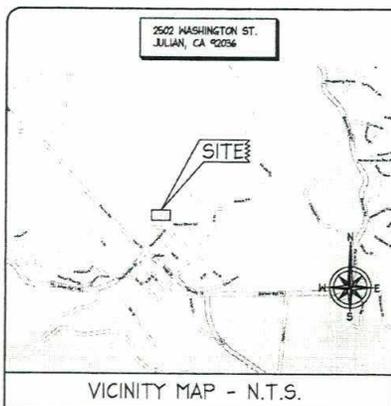
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Site Plan Showing Mitigated Noise Contours and Receiver Locations
Job # B01001N1

Figure 6

APPENDIX A

Site Plans, Dated August 1, 2012



VICINITY MAP - N.T.S.



DOWNTOWN JULIAN

DIRECTIONS TO SITE

TAKE RAMP ONTO I-5 S. GO 45.37 MI. TAKE EXIT 85/BEVERLYHILLS/VISTA HWY ONTO CA-78 E. GO 16.4 MI. TAKE THE SAN DIEGO EXIT ONTO I-15 S. GO 4.7 MI. TAKE THE VIA RANCHO PARKWAY EXIT. GO 0.3 MI. TURN RIGHT ON H VIA RANCHO PKY. GO 0.6 MI. CONTINUE ON BEAR VALLEY PKY S. GO 0.3 MI. TURN RIGHT ON SAN PASQUAL RD. GO 2.9 MI. TURN RIGHT ON OLD MILKY HWY. GO 1.8 MI. CONTINUE ON CA-78. GO 10.5 MI. TURN LEFT ON CA-78. GO 22.1 MI. CONTINUE ON WASHINGTON ST. GO 0.1 MI. ARRIVE AT 2502 WASHINGTON ST, JULIAN, ON THE LEFT.

DRIVING DIRECTIONS

□ NEW ANTENNA	○ LIGHT POLE	△ ELEVATION REF.	—E— ELECT. CONDUIT	▨ PLASTER (E) MASONRY
○ EXISTING ANTENNA	○ FOUNDATION	△ SECTION REF.	—A— COAXIAL CABLE	▩ CONCRETE
○ GROUND ROD	△ SPOT ELEV.	--- PROP. LEASE LINE	—T/E— OVERHEAD SERV. CONDUITS	▩ EARTH
—T— GROUND BUS BAR	△ SET POINT	--- MATCH LINE	—X— CHAIN LINK FENCE	▩ GRAVEL
• MECH. GRID. CONN.	△ REVISION	○ WORK POINT	▨ WOOD CONT.	▩ PLYWOOD
■ CADWELD	○ GRID REF.	—T— GRID. CONDUCTOR	▨ WOOD BLOCKING	▩ SAND
■ GROUND ACC. WELL	○ DETAIL REF.	—T— TELE. CONDUIT		▩ STEEL
□ ELECTRIC BOX				
□ TELEPHONE BOX				

SYMBOLS, LINETYPES AND HATCH PATTERNS

PLAN VERIFICATION
CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

GENERAL CONTRACTOR NOTES

THIS PROPOSED PROJECT CONSISTS OF THE INSTALLATION OF A 30 KW GENERAC EMERGENCY BACKUP GENERATOR OUTSIDE A VERIZON WIRELESS EXISTING UNMANNED TELECOMMUNICATIONS FACILITY. THIS GENERATOR WOULD RUN IN THE EVENT OF A MAJOR CATASTROPHE CAUSING COMMERCIAL POWER FAILURE.

PROJECT DESCRIPTION

- T-1 TITLE SHEET
- A-1 SITE PLAN
- A-2 DETAILED SITE PLAN
- A-3 ARCHITECTURAL ELEVATIONS
- A-4 GENERATOR SPECIFICATIONS

THE PERMIT APPLICANT ACKNOWLEDGES THAT THIS PROJECT PROPERTY IS ZONED RC AND SURROUNDING PROPERTIES ZONED RC AND WILL BE REQUIRED TO COMPLY WITH THE ONE-HOUR SOUND LEVEL LIMITS OF CHAPTER 4 (NOISE ABATEMENT AND CONTROL) IN TITLE 3, DIVISION 6 OF THE SAN DIEGO COUNTY CODE OF REGULATORY ORDINANCES. FOR THIS PROJECT PROPERTY, THE MOST STRINGENT DAILY HOURLY LIMIT AT ANY PROPERTY LINE IS 55 DECIBELS (DBA) AND FOR NIGHTTIME CONDITIONS THIS HOURLY LIMIT IS 50 DECIBELS (DBA). AS SUCH, IT IS SOLELY THE RESPONSIBILITY OF THE APPLICANT TO ENSURE COMPLIANCE WITH THESE STANDARDS. THE PROPERTY OWNER SHALL CORRECT ANY REPORTED NOISE VIOLATION OF THE APPLICABLE SOUND LEVEL LIMITS WITHIN 30 DAYS OF WRITTEN NOTIFICATION BY THE COUNTY.

SHEET INDEX

REV.	DATE/BY:	REVISION DESCRIPTION:
1	04-21-11 MY	CLIENT REVISION
2	05-02-11 MY	CLIENT REVISION
3	05-06-11 ES	CLIENT REVISION
4	08-22-11 MY	CLIENT REVISIONS
5	08-01-12 JT	CLIENT REVISIONS

CONSULTANT:



8941 ATLANTA AVENUE, #504
HUNTINGTON BEACH, CA 92646

SITE BUILDER:



15505 SAND CANYON AVE.
BUILDING 'D' 1st. FLOOR
IRVINE, CA 92618
PHONE (949) 266-7000

A/E DEVELOPMENT:



2610 ENTERPRISE WAY #600
LAKE FOREST, CA 92630
TEL: 949-716-9940
FAX: 949-297-4786

ENGINEER:

SITE INFO:

SITE NAME:
DOWNTOWN JULIAN
SITE ADDRESS:
2502 WASHINGTON ST.
JULIAN, CA 92036

SHEET TITLE:

TITLE SHEET

DRAWING INFO:

DWG. NAME:	DRAWN BY:	DATE:
T1	MY	11-12-09

SHEET NUMBER:

T-1

AC. ASPHALT CONCRETE	GVL. GRAVEL	H.C. HANDICAPPED
ANT. ANTENNA(S)	H.C. HORIZ.	HORIZ.
BEI. BELOW GRADE	HT. HEIGHT	HTG./VENT./A/C
B.G. BUILDING	HVAC. INCLUDE	LBS. POUNDS
B.M. BENCH MARK	INCL. MASONRY	LOM POINT
BRK. BRICK	INCL. MASONRY	MAX. MAXIMUM
CAB. CABINET	INCL. METAL	MIN. MINIMUM
C.B. CATCH BASIN	INCL. MFR. MANUFACTURER	MIN. MINIMUM
CEM. CEMENT	INCL. NEN NORTH	NOT IN CONTRACT
CFT. CUBIC FOOT	INCL. N.I.C. NOT TO SCALE	N.T.S. N.T.S.
C.I.P.C. CAST-IN-PLACE CONC.	INCL. P.P. POWER POLE	P.P. PROPERTY LINE
C.L.L. CONTRACT LIMIT LINE	INCL. P.O.C. POINT OF CONN.	P.O.C. POINT OF CONN.
C.L.S. CLOSURE	INCL. PROP. PROPERTY	PROP. PROPERTY
C.M.U. CONC. MASONRY UNIT	INCL. PT. POINT	P.V.M.T. PAVEMENT
CONC. CONCRETE	INCL. R.S.D. REQUIRED	R.S.D. REQUIRED
CONN. CONNECTION	INCL. R.H. ROOF HATCH	R.H. ROOF HATCH
CONSTR. CONSTRUCTION	INCL. R.F.G. ROOFING	R.F.G. ROOFING
CTR. CENTER	INCL. R.O.M. RIGHT-OF-WAY	R.O.M. RIGHT-OF-WAY
C.Y.D. CUBIC YARD	INCL. S. SOUTH	S. SOUTH
DBL. DOUBLE	INCL. T.B.L. TELEPHONE	T.B.L. TELEPHONE
DEMO. DEMOLITION	INCL. T.O.P. TOP OF PARAPET	T.O.P. TOP OF PARAPET
DIM. DIMENSION	INCL. T.O.S. TOP OF SLAB	T.O.S. TOP OF SLAB
DRNG. DRAWING	INCL. T.O.M. TOP OF MALL	T.O.M. TOP OF MALL
DTL. DETAIL	INCL. TYP. TYPICAL	TYP. TYPICAL
(E) EXISTING	INCL. UNF. UNFINISHED	UNF. UNFINISHED
E. EAST	INCL. U.N.O. UNLESS NOTED OTHERWISE	U.N.O. UNLESS NOTED OTHERWISE
E.L. ELEVATION	INCL. VERT. VERTICAL	VERT. VERTICAL
ELEC. ELECTRIC (AL)	INCL. W. WEST	W. WEST
ENCL. ENCLOSURE	INCL. M. MITH	M. MITH
E.P. ELECT. PANELBOARD	INCL. M.P. WATERPROOF	M.P. WATERPROOF
EQIP. EQUIPMENT	INCL. WT. WEIGHT	WT. WEIGHT
EX. EXISTING		
EXT. EXTERIOR		
FS. FINISH SURFACE		
FT. FOOT OR FEET		
FUT. FUTURE		
G.C. GENERAL CONTR.		
G.F. GROUND FACE		
GND. GROUND		
GR. GRADE OR GRADING		
GV. GAS VENT		

ABBREVIATIONS

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ACCEPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES:

- 200 CALIFORNIA BUILDING CODE
- 200 CALIFORNIA RESIDENTIAL CODE
- 200 CALIFORNIA PLUMBING CODE
- 200 CALIFORNIA MECHANICAL CODE
- 200 CALIFORNIA ELECTRICAL CODE
- 200 ENERGY CODE
- 200 GREEN BUILDING CODE
- 200 CALIFORNIA FIRE CODE
- 200 CALIFORNIA REFERENCE STANDARDS CODE

CODE COMPLIANCE

SITE PARCEL NO.:	250-090-29-00
JURISDICTION:	COUNTY OF SAN DIEGO
ZONE:	RC
OCCUPANCY:	UNMANNED TELECOMMUNICATIONS FACILITY
LATITUDE:	33° 4' 49.52"
LONGITUDE:	116° 36' 5.41"
ELEVATION:	4280'
LEGAL DESCRIPTION:	PARCEL 2, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, AS SHOWN AT PAGE 2701 OF THE PARCEL MAPS, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, JULY 30 1974.

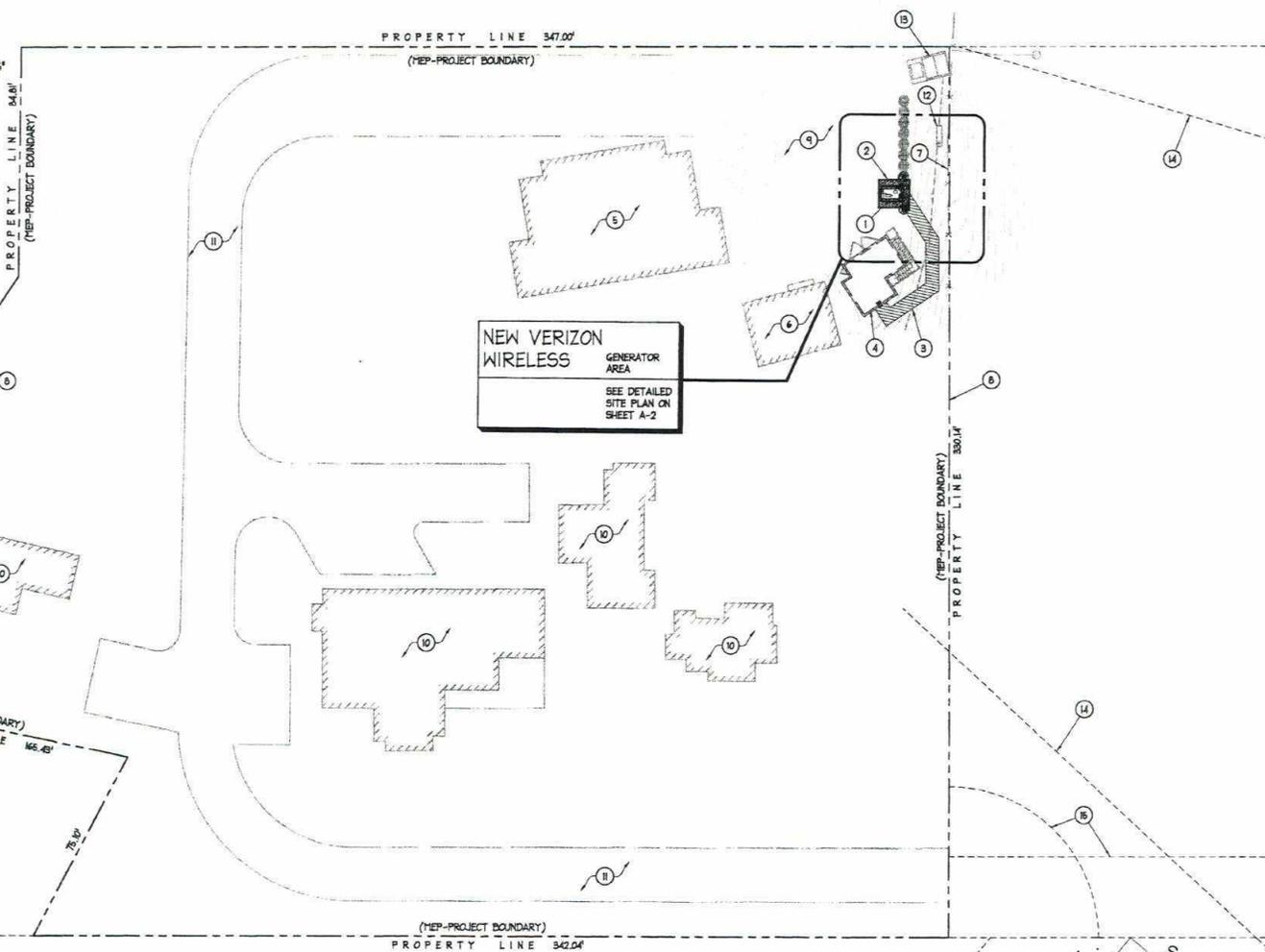
PROJECT DATA

SITE ADDRESS:	2502 WASHINGTON ST. JULIAN, CA 92036
OWNER:	DARREL STRAUBE 2502 WASHINGTON ST. JULIAN, CA 92036
CONTACT:	XXX (000) XXX-XXXX
APPLICANT:	VERIZON WIRELESS PROJECT MANAGER: EMANUEL HIGGINS 15028 PAYTON IRVINE, CA 92620 PHONE: (949) 266-7000
CONTACTS:	MILESTONE WIRELESS PROJECT MANAGER: EMANUEL HIGGINS 15028 PAYTON IRVINE, CA 92620 PHONE: (325) 241-6519
ARCHITECT:	ACO ARCHITECTS, INC. 2610 ENTERPRISE WAY #600 LAKE FOREST, CA 92630 PHONE: (949) 716-9940 FAX: (949) 297-4786
CONTACT:	ANTHONY ORTALA (949) 716-9940

PROJECT DIRECTORY

NOTES:

- 1 NEW VERIZON WIRELESS 30 KW KOHLER EMERGENCY BACKUP GENERATOR WITH A 150 GALLON DIESEL FUEL TANK, MOUNTED INSIDE A NEW VERIZON WIRELESS 10'-6" X 11'-8" GENERATOR EQUIPMENT ENCLOSURE LOCATED OUTSIDE EXISTING VERIZON WIRELESS LEASE AREA.
- 2 NEW VERIZON WIRELESS 10'-6" X 11'-8" SOUND ATTENUATED EQUIPMENT ENCLOSURE MOUNTED ON NEW 10'-10" X 12'-0" CONCRETE PAD WITH SPILL CONTAINMENT CURB.
- 3 NEW VERIZON WIRELESS 6'-0" WIDE NON-EXCLUSIVE UTILITY EASEMENT (SHOWN HATCHED).
- 4 EXISTING VERIZON WIRELESS EQUIPMENT ROOM LOCATED AT 2ND FLOOR OF EXISTING BUILDING AND LOCATION OF NEW VERIZON WIRELESS AUTOMATIC TRANSFER SWITCH.
- 5 EXISTING 3-STORY HOTEL.
- 6 EXISTING 1-STORY GARAGE BUILDING.
- 7 EXISTING BARBED-WIRE FENCE.
- 8 EXISTING PROPERTY LINE.
- 9 EXISTING GRAVEL AREA.
- 10 EXISTING BUILDING, TYPICAL.
- 11 EXISTING ACCESS ROAD.
- 12 EXISTING PROPANE TANK.
- 13 EXISTING EQUIPMENT SHED.
- 14 EXISTING PUBLIC UTILITIES EASEMENT.
- 15 EXISTING ROAD AND PUBLIC UTILITIES EASEMENT.



CUMULATIVE CHANGE TABLE

APPROVED SQUARE FOOTAGE	DESCRIPTION	PERCENTAGE CHANGE
± 1166.8 SQ. FT.	(6) (E) BUILDINGS	BASELINE
± 505.1 SQ. FT.	(E) VMZ EQUIPMENT SHELTER	PLUS 4.5 %
± 130 SQ. FT.	NEW GENERATOR WITH ENCLOSURE	PLUS 1.2 %
NET CHANGE		TOTAL 5.7%

REV.	DATE/BY:	REVISION DESCRIPTION:
1	04-21-11 MT	CLIENT REVISION
2	05-02-11 MT	CLIENT REVISION
3	05-06-11 ES	CLIENT REVISION
4	05-22-11 MT	CLIENT REVISIONS
5	06-07-12 JT	CLIENT REVISIONS

CONSULTANT:

844 ATLANTA AVENUE, #504
HUNTINGTON BEACH, CA 92646
SITE BUILDER:

15505 SAND CANYON AVE.
BUILDING 1D 1st. FLOOR
IRVINE, CA 92618
PHONE (949) 266-7000

ARCHITECTS - INC.

26170 ENTERPRISE WAY #600
LAKE FOREST, CA 92630
TEL: 949-716-9940
FAX: 949-297-4788

ENGINEER:

SITE INFO:

SITE NAME:
DOWNTOWN JULIAN

SITE ADDRESS:
2502 WASHINGTON ST.
JULIAN, CA 92036

SHEET TITLE:
SITE PLAN

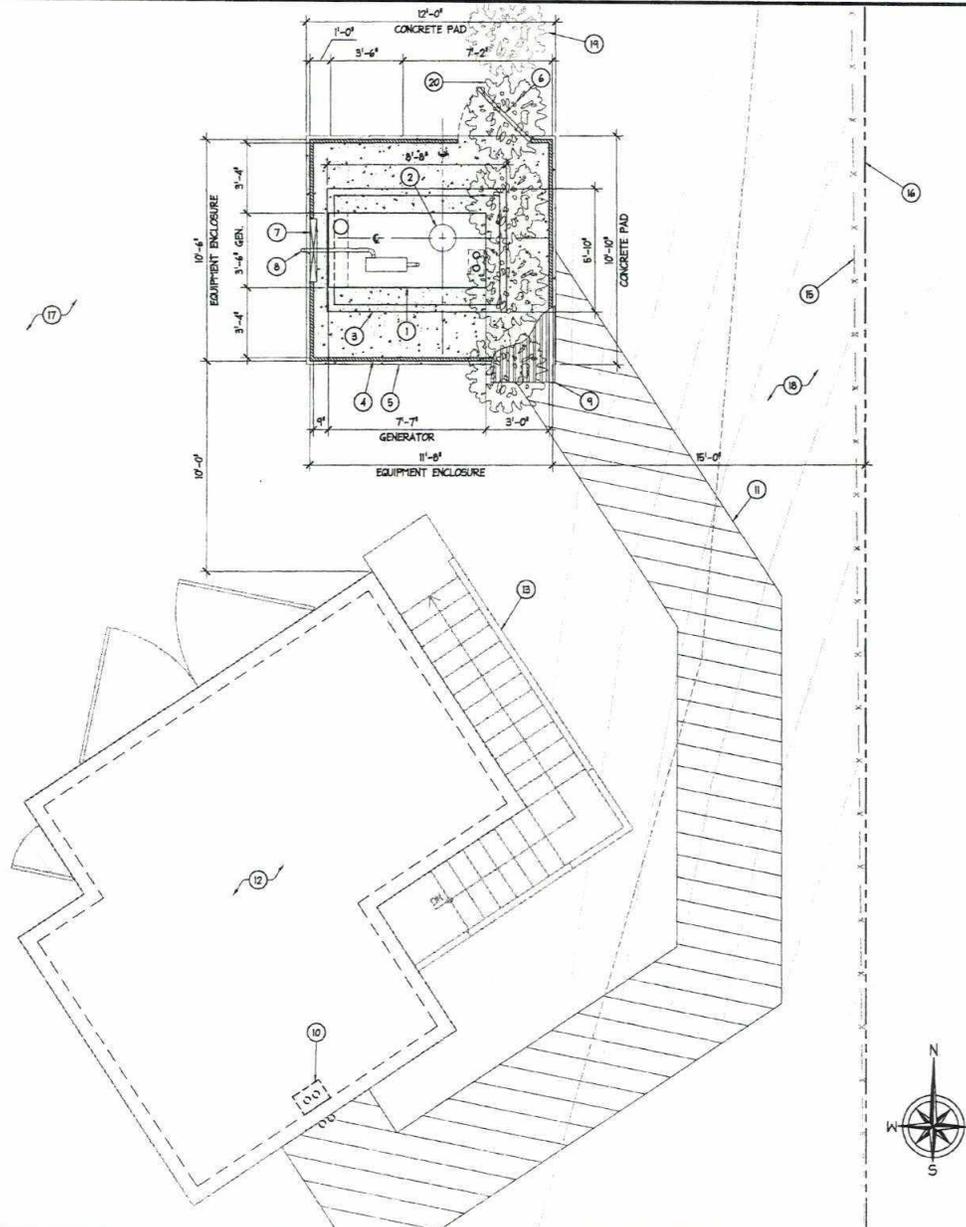
DRAWING INFO:

DWG. NAME: AI	DRAWN BY: MT	DATE: 11-12-09
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SHEET NUMBER:
A-1

NOTES:

- ① NEW VERIZON WIRELESS 30 KW KOHLER EMERGENCY BACKUP GENERATOR WITH A 150 GALLON DIESEL FUEL TANK, MOUNTED INSIDE A NEW VERIZON WIRELESS 10'-6" X 11'-8" GENERATOR EQUIPMENT ENCLOSURE LOCATED OUTSIDE EXISTING VERIZON WIRELESS LEASE AREA.
- ② NEW VERIZON WIRELESS FIRE SUPPRESSION CANISTER MOUNTED ON NEW PURLIN (SHOWN DASHED).
- ③ NEW VERIZON WIRELESS 5'-10" X 8'-8" SPILL CONTAINMENT CURB.
- ④ NEW VERIZON WIRELESS 10'-6" X 11'-8" SOUND ATTENUATED EQUIPMENT ENCLOSURE MOUNTED ON NEW 10'-10" X 12'-0" CONCRETE PAD WITH SPILL CONTAINMENT CURB.
- ⑤ NEW VERIZON WIRELESS 10'-10" X 12'-0" CONCRETE PAD WITH SPILL CONTAINMENT CURB.
- ⑥ NEW VERIZON WIRELESS 3'-4" WIDE METAL DOOR.
- ⑦ NEW VERIZON WIRELESS DISCHARGE LOUVER.
- ⑧ NEW VERIZON WIRELESS GENERATOR EXHAUST PIPE.
- ⑨ NEW VERIZON WIRELESS 2:12 PITCH GALV. STEEL ROOF DECKING.
- ⑩ NEW VERIZON WIRELESS WALL MOUNTED AUTOMATIC TRANSFER SWITCH LOCATED INSIDE EXISTING VERIZON WIRELESS EQUIPMENT ROOM. CONTRACTOR TO VERIFY IN FIELD EXACT MOUNTING LOCATION.
- ⑪ NEW VERIZON WIRELESS 5'-0" WIDE NON-EXCLUSIVE UTILITY EASEMENT (SHOWN HATCHED).
- ⑫ EXISTING VERIZON WIRELESS EQUIPMENT ROOM LOCATED AT 2ND FLOOR OF EXISTING BUILDING AND LOCATION OF NEW VERIZON WIRELESS AUTOMATIC TRANSFER SWITCH.
- ⑬ EXISTING STAIRS WITH HANDRAIL.
- ⑭ EXISTING 1-STORY GARAGE BUILDING.
- ⑮ EXISTING BARBED-WIRE FENCE.
- ⑯ EXISTING PROPERTY LINE.
- ⑰ EXISTING GRAVEL AREA.
- ⑱ EXISTING DIRT AREA.
- ⑲ EXISTING SHRUBS TO REMAIN.
- ⑳ EXISTING SHRUBS TO BE REMOVED.



DETAILED SITE PLAN

SCALE: 3/8" = 1'-0"

REV.	DATE/BY:	REVISION DESCRIPTION:
1	04-21-11 MY	CLIENT REVISION
2	05-02-11 MY	CLIENT REVISION
3	05-06-11 RS	CLIENT REVISION
4	08-22-11 MY	CLIENT REVISIONS
5	08-01-12 JT	CLIENT REVISIONS

CONSULTANT:

1505 ATLANTA AVENUE, #504
HUNTINGTON BEACH, CA 92646
SITE BUILDER:

15505 SAND CANYON AVE.
BUILDING 'D' 1st. FLOOR
IRVINE, CA 92618
PHONE (949) 266-7000

A/E DEVELOPMENT:

26170 ENTERPRISE WAY #600
LAKE FOREST, CA 92630
TEL: 949-716-9940
FAX: 949-297-4786

ENGINEER:

SITE INFO:

SITE NAME:
DOWNTOWN JULIAN

SITE ADDRESS:
2502 WASHINGTON ST.
JULIAN, CA 92036

SHEET TITLE:
DETAILED SITE PLAN

DRAWING INFO:

DWG. NAME: A2	DRAWN BY: MY	DATE: 11-12-09
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SHEET NUMBER:
A-2

REV.	DATE/BY:	REVISION DESCRIPTION:
1	04-21-11 MY	CLIENT REVISION
2	05-02-11 MY	CLIENT REVISION
3	05-04-11 RS	CLIENT REVISION
4	06-22-11 MY	CLIENT REVISIONS
5	08-01-12 JT	CLIENT REVISIONS

CONSULTANT:



8941 ATLANTA AVENUE, #504
HUNTINGTON BEACH, CA 92646
SITE BUILDER:



15505 SAND CANYON AVE.
BUILDING 'D' 1st. FLOOR
IRVINE, CA 92618
PHONE (949) 266-7000

A/E DEVELOPMENT:



26170 ENTERPRISE WAY #600
LAKE FOREST, CA 92630
TEL: 949-716-9940
FAX: 949-297-4788

ENGINEER:

SITE INFO:

SITE NAME:
DOWNTOWN JULIAN

SITE ADDRESS:
2502 WASHINGTON ST.
JULIAN, CA 92036

SHEET TITLE:

ARCHITECTURAL
ELEVATIONS

DRAWING INFO:

DWG. NAME: AB	DRAWN BY: MY	DATE: 11-12-09
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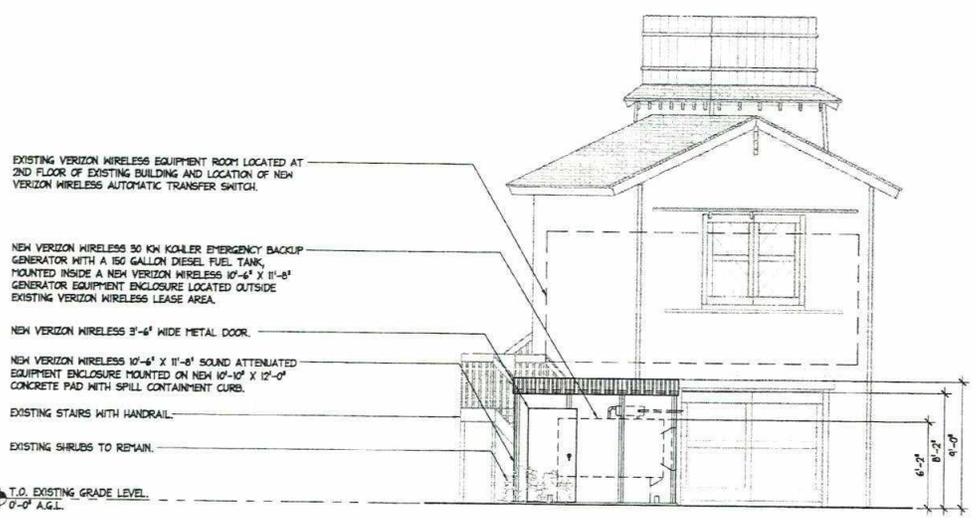
SHEET NUMBER:

A-3



WEST ELEVATION

SCALE: 1/4" = 1'-0" 1



NORTH ELEVATION

SCALE: 1/4" = 1'-0" 2

APPENDIX B

Pertinent Sections of the County of San Diego Noise Ordinance

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, S87, S90, S92, RV, and RU with a density of less than 11 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 density of 11 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
(6) S82, M56, and M58.	Anytime	75
(7) S88 (see subsection (c) below)		

(b) Where a noise study has been conducted and the noise mitigation measures recommended by that study have been made conditions of approval of a Major Use Permit, which authorizes the noise-generating use or activity and the decision making body approving the Major Use Permit determined that those mitigation measures reduce potential noise impacts to a level below significance, implementation and compliance with those noise mitigation measures shall constitute compliance with subsection (a) above.

(c) S88 zones are Specific Planning Areas which allow different uses. The sound level limits in Table 36.404 above that apply in an S88 zone depend on the use being made of the property. The limits in Table 36.404, subsection (1) apply to property with a residential, agricultural or civic use. The limits in subsection (3) apply to property with a commercial use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M50, M52 or M54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M56 or M58 zone.

(d) If the measured ambient noise level exceeds the applicable limit in Table 36.404, the allowable one-hour average sound level shall be the one-hour average ambient noise level, plus three decibels. The ambient noise level shall be measured when the alleged noise violation source is not operating.

(e) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones. The one-hour average sound level limit applicable to extractive industries, however, including but not limited to borrow pits and mines, shall be 75 decibels at the property line regardless of the zone in which the extractive industry is located.

(f) A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section measured at or beyond six feet from the boundary of the easement upon which the facility is located.

(Amended by Ord. No. 7094 (N.S.), effective 3-25-86; amended by Ord. No. 9478 (N.S.), effective 7-19-02; amended by Ord. No. 9621 (N.S.), effective 1-9-04; amended by Ord. No. 9962 (N.S.), effective 1-9-09)

SEC. 36.405. REPAIRING, REBUILDING OR TESTING MOTOR VEHICLES.

It shall be unlawful for any person to repair, rebuild or test any motor vehicle in such a manner as to cause a disturbing, excessive or offensive noise as defined in section 36.402 of this chapter.

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

SEC. 36.406. POWERED MODEL VEHICLES.

It shall be unlawful for any person to operate a powered model vehicle between 9 p.m. and 7 a.m. A powered model vehicle operated in a County park shall meet the daytime sound level standards for an RS zone measured at a point 100 feet from the park property line or 100 feet from where the model vehicle is being operated, whichever is less.

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

SEC. 36.407. REFUSE VEHICLES & PARKING LOT SWEEPERS.

No person shall operate or allow to be operated, a refuse compacting, processing, or collection vehicle or a parking lot sweeper between the hours of 10 p.m. to 6 a.m., in or within 100 feet of a residential zone.

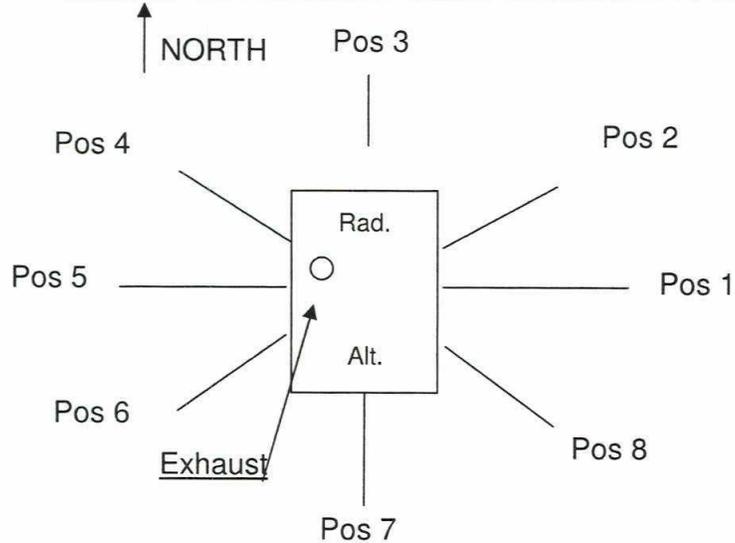
(Amended by Ord. No. 7428 (N.S.), effective 2-4-88; amended by Ord. No. 9962 (N.S.), effective 1-9-09)

APPENDIX C

Manufacturer Data Sheets

GENERATOR TEST RECORD

Type Of Test:	Sound test	"	Test No.	30REOZJC-14	Sheet Number	4 of 4
		"	Work Reqst. No.	6300	Observer	LVG
		"	Model	30REOZJC	Date	7/28/2008
		"	Generator Type	4P5	Serial No.	2183470
		"	Controller No.	DEC 3+	Spec No.	GM57153-ENG9
				16 Lite	Ambient	

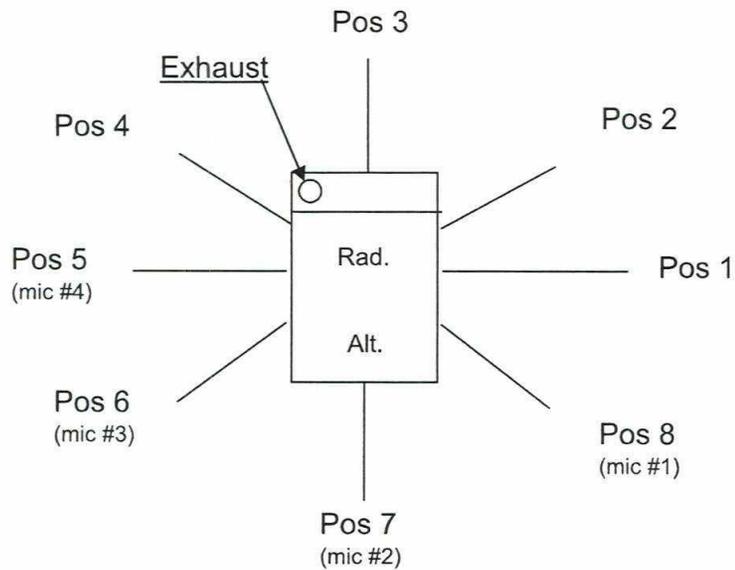


Loads are in kW

Position	Load Amb	Load NL	Load 30
1	49.2	79.5	78.9
2	49.6	80.4	80.3
3	51.5	81.2	80.4
4	51.6	81.4	81.1
5	49.1	78.6	78.7
6	49.2	76.2	77.1
7	49.4	80.2	81.3
8	48.8	79.6	80.5
Average	49.8	79.6	79.8
Log Addition	59.0	88.9	89.0
Log Average	49.9	79.9	80.0

GENERATOR TEST RECORD

Type Of Test:	Sound test	"	Test No.		Sheet Number	11 OF 12
	GM59120 sound housing	"	Work Reqst. No.	6301	Observer	RJD/LVG
	8 points, 7 meters from PROFILE.	"	Model	30REOZJC	Date	2/1/2008
		"	Generator Type		Serial No.	2177815
		"	Controller No.		Spec No.	GM67153-ENG1
		"				



Loads are in kW

Position	Load	Load
	NL	30 kW
1	62.1	64.3
2	61.2	65.9
3	61.6	65.7
4	62.0	67.0
5	61.7	65.0
6	61.9	63.5
7	60.6	65.3
8	61.5	65.7
Average	61.6	65.3
Log Addition	70.6	74.4
Log Average	61.6	65.4



"The ART of Noise Control"

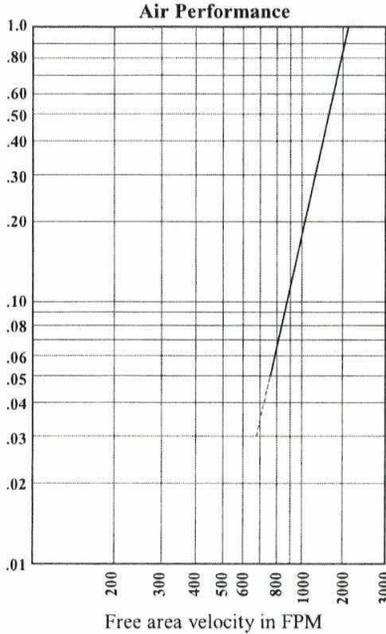
For your local ArtUSA Representative

Call: 1-888-454-6973

Internet: www.artusaindustries.us

IES-MFLA-6-36 Fabricated Acoustical Louver

6" Deep Plain Blade
Regular or Low Pressure



Regular Pressure

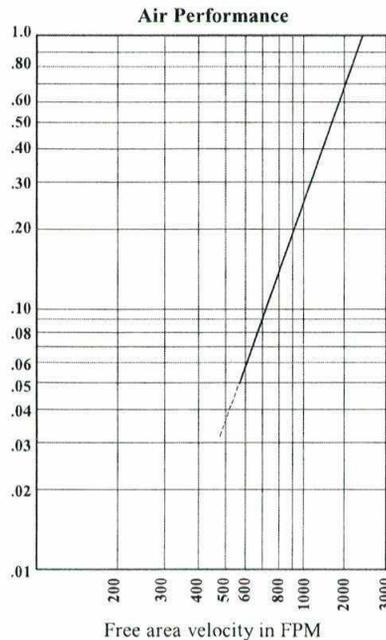
Acoustical

Octave Band/Frequency.Hz	1/63	2/125	3/250	4/500	5/1k	6/2k	7/4k	8/8k
Transmission Loss. db	6	9	10	11	15	19	17	16
Noise Reduction.db	12	13	16	18	21	25	26	24

Free Area Chart - Sq. Ft.

Height	96	90	84	78	72	66	60	54	48	42	36	30	24	18	12
1.92	3.05	4.17	5.30	6.42	7.55	8.67	9.80	10.92	12.05	13.17					
1.78	2.81	3.85	4.89	5.93	6.97	8.10	9.05	10.09	11.13	12.17					
1.60	2.54	3.48	4.41	5.35	6.29	7.23	8.16	9.10	10.04	10.98					
1.49	2.37	3.24	4.12	4.99	5.87	6.74	7.62	8.49	9.37	10.24					
1.39	2.20	3.01	3.83	4.64	5.45	6.26	7.08	7.89	8.70	9.51					
1.28	2.03	2.76	3.53	4.28	5.03	5.78	6.53	7.28	8.03	8.78					
1.13	1.80	2.46	3.13	3.79	4.45	5.12	5.78	6.45	7.11	7.78					
.96	1.52	2.09	2.65	3.21	3.77	4.34	4.90	5.46	6.02	6.59					
.85	1.35	1.85	2.35	2.85	3.35	3.85	4.35	4.85	5.35	5.85					
.75	1.18	1.62	2.06	2.50	2.93	3.37	3.81	4.25	4.68	5.12					
.64	1.02	1.39	1.77	2.14	2.52	2.89	3.27	3.64	4.02	4.39					
.49	.78	1.07	1.36	1.65	1.94	2.23	2.52	2.81	3.10	3.38					
.32	.51	.70	.88	1.07	1.26	1.45	1.63	1.82	2.01	2.20					
.21	.34	.46	.59	.71	.84	.96	1.09	1.21	1.34	1.46					
.12	.18	.24	.30	.36	.42	.48	.54	.60	.66	.72					

Width



Low Pressure

Acoustical

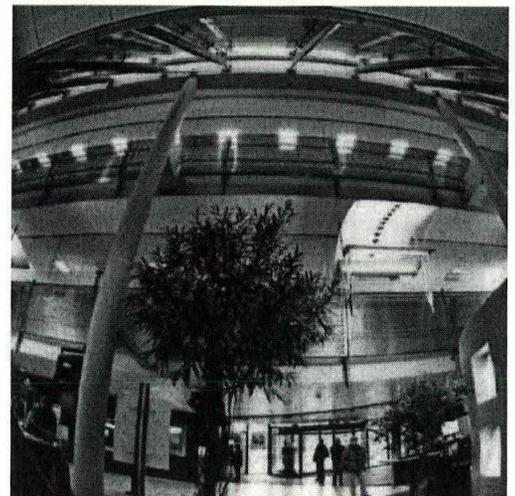
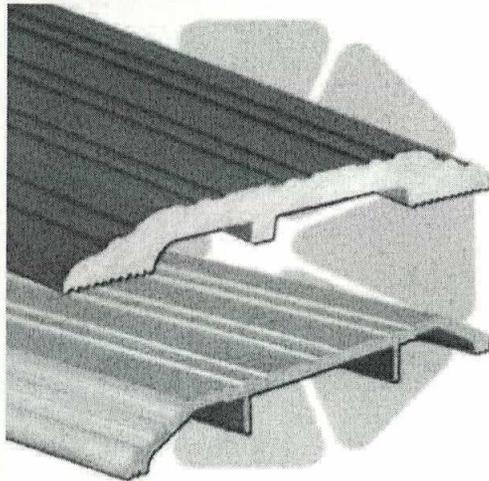
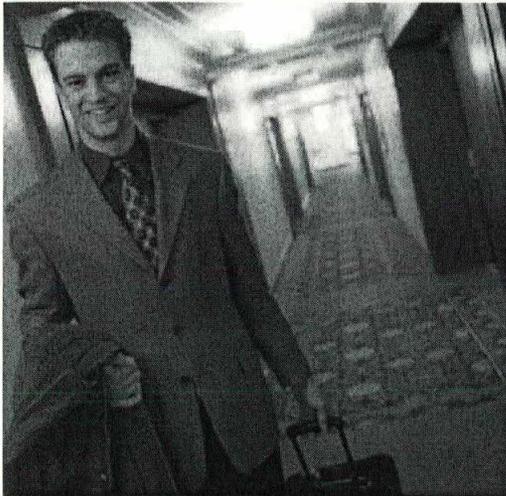
Octave Band/Frequency.Hz	1/63	2/125	3/250	4/500	5/1k	6/2k	7/4k	8/8k
Transmission Loss. db	2	7	8	10	13	15	13	12
Noise Reduction.db	9	12	15	16	18	20	19	18

Free Area Chart - Sq. Ft.

Height	96	90	84	78	72	66	60	54	48	42	36	30	24	18	12
2.44	3.86	5.29	6.71	8.14	9.56	10.99	12.42	13.84	15.27	16.69					
2.27	3.60	4.93	6.27	7.60	8.93	10.26	11.59	12.92	14.25	15.58					
2.11	3.35	4.58	5.82	7.05	8.29	9.53	10.76	12.00	13.23	14.47					
1.95	3.09	4.23	5.37	6.51	7.65	8.79	9.93	11.07	12.21	13.35					
1.79	2.83	3.88	4.92	5.97	7.01	8.06	9.11	10.15	11.20	12.24					
1.62	2.57	3.52	4.48	5.43	6.38	7.33	8.28	9.23	10.18	11.13					
1.46	2.32	3.17	4.03	4.88	5.74	6.59	7.45	8.31	9.16	10.02					
1.30	2.06	2.82	3.58	4.34	5.10	5.86	6.62	7.38	8.14	8.90					
1.14	1.80	2.47	3.13	3.80	4.46	5.13	5.79	6.46	7.12	7.79					
.97	1.54	2.11	2.69	3.26	3.83	4.40	4.97	5.54	6.11	6.68					
.81	1.29	1.76	2.24	2.71	3.19	3.66	4.14	4.61	5.09	5.56					
.65	1.03	1.41	1.79	2.17	2.55	2.93	3.31	3.69	4.07	4.45					
.49	.77	1.06	1.34	1.63	1.91	2.20	2.48	2.77	3.05	3.34					
.32	.51	.70	.90	1.09	1.28	1.47	1.66	1.85	2.04	2.23					
.12	.18	.24	.30	.36	.42	.48	.54	.60	.66	.72					

Width

THRESHOLDS AND GASKETING

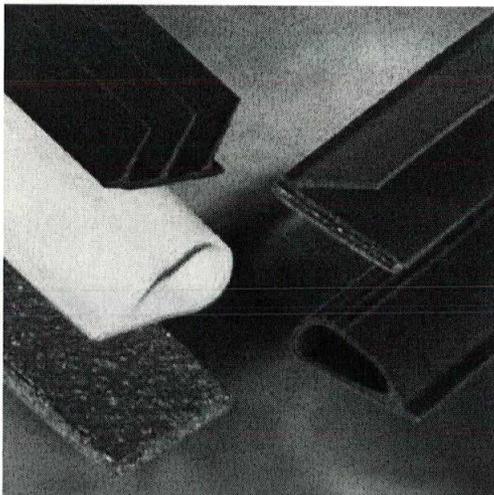


VENTURA, CA (USA)
P.O. Box 3780
Ventura, CA 93006
PH: 800.283.9988
FAX: 800.283.4050

MEMPHIS, TN (USA)
P.O. Box 18966
Memphis, TN 38181
PH: 800.824.3018
FAX: 800.243.3656

VANCOUVER, BC (CANADA)
103-2480 Mt. Lehman Rd.
Abbotsford, BC V2T 6W3 Canada
PH: 877.535.7888
FAX: 877.535.7444

TORONTO, ON (CANADA)
160 Four Valley Rd.
Concord, ON L4K 4T9 Canada
PH: 866.243.9816
FAX: 866.243.9817

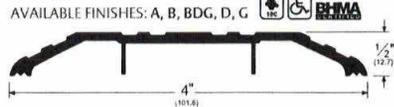


ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience.

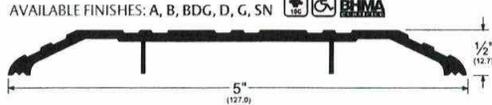
COMMERCIAL THRESHOLDS

Saddle Thresholds

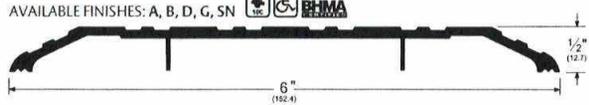
170_



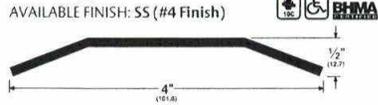
171_



172_



175SS_



270_



271_



272_



Heavy Duty Thresholds

1715_



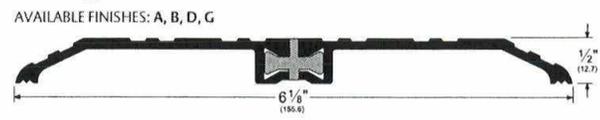
Modular Heavy Duty Thresholds

1716_

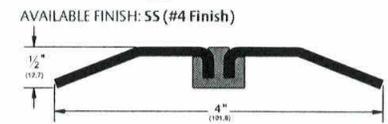


Thermal Barrier Thresholds

253X3_FG



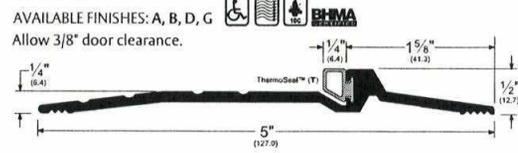
252SSx2FG_



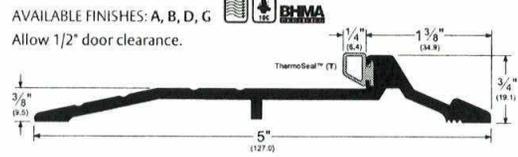
Also Available (Not Shown)
253SSx3FG_
252SSx3FG_

Latching Panic Exit Saddle Thresholds

2005_T



179_T



ALTERNATE INSERTS

2005_P		2005_V	
179_P	pile (P)	179_V	vinyl (V)

HOSPITALITY PRODUCTS

Vinyl Thresholds

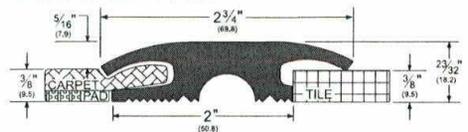
V232_

AVAILABLE COLORS: BL
AVAILABLE LENGTHS: 36", 48", 73"



V2325_

AVAILABLE COLORS: BL
AVAILABLE LENGTHS: 36", 48", 73"



V2320_

AVAILABLE COLORS: BL
AVAILABLE LENGTHS: 36", 48", 73"

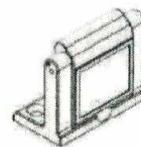
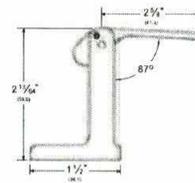


V2322_

AVAILABLE COLORS: BL
AVAILABLE LENGTHS: 36", 48", 73"



Privacy Door Latch



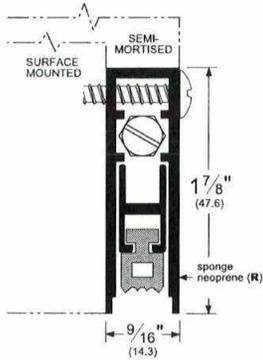
PDL
AVAILABLE FINISHES:
US3, 4, 26, 26D/15

DOOR BOTTOMS

Automatic Door Bottoms

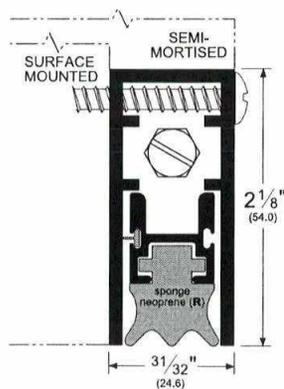
4131_RL

AVAILABLE FINISHES: BDG, C, D, SN



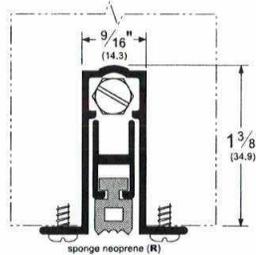
4301_RL

AVAILABLE FINISHES: C, D



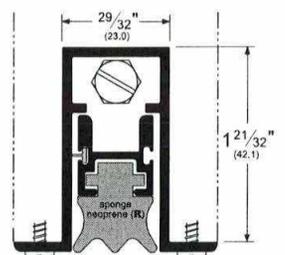
411_RL

AVAILABLE FINISHES: A

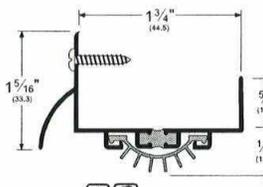


434_RL

AVAILABLE FINISHES: A

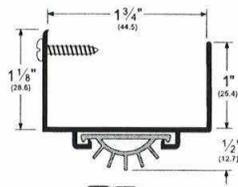


Door Shoes



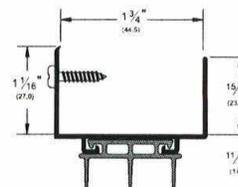
216_V 216_PK

AVAILABLE FINISHES:
A, B, BDG, D, G, PW, SN



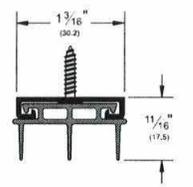
217_V 217_PK

AVAILABLE FINISHES:
A, BDG, D, G, PW, SN



2173_V

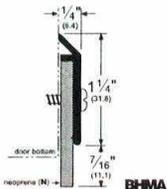
AVAILABLE FINISHES:
A, BDG, D, PW
Also available unnotched:
2173_V36UN
2173_V48UN



2343_V

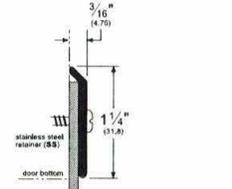
AVAILABLE FINISHES:
A, D
Also available unnotched:
2343_V36UN
2343_V48UN

Door Bottom Sweeps



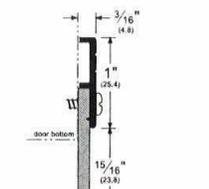
315_N

AVAILABLE FINISHES:
B, C, D, G, SN



315SSN

AVAILABLE FINISH:
SS (#4 Finish)



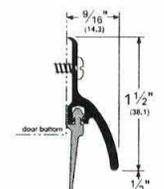
321_N

AVAILABLE FINISHES:
C, D, G



345_NB

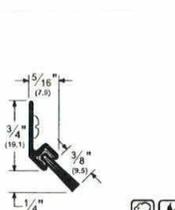
AVAILABLE FINISHES:
A, BDG, D, G, PW



345_V

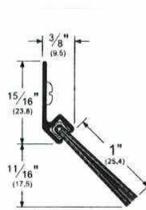
AVAILABLE FINISHES:
A, BDG, D, G, PW

BRUSH GASKETING



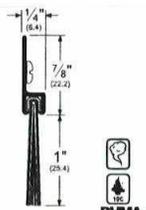
45041_NB

AVAILABLE FINISHES:
C, D, G, SN



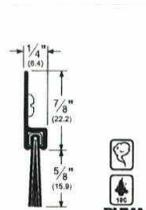
45100_NB

AVAILABLE FINISHES:
C, D, G, SN



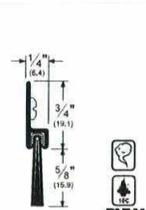
18100_NB

AVAILABLE FINISHES:
C, D, G, PW



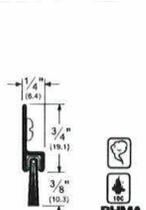
18062_NB

AVAILABLE FINISHES:
C, D, G, PW



18061_NB

AVAILABLE FINISHES:
C, D, G, SN

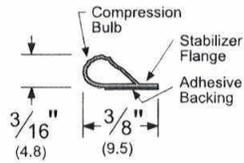


18041_NB

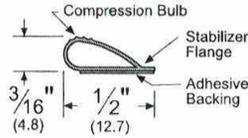
AVAILABLE FINISHES:
C, D, G, SN

NOTE: ALTERNATE INSERTS MAY CARRY DIFFERENT RATINGS. SEE FULL LINE CATALOG OR WEBSITE FOR MORE INFORMATION.

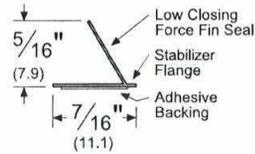
ADHESIVE GASKETING



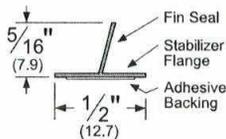
PK33 **BHMA**
 AVAILABLE FINISHES:
 BL, D, W
 AVAILABLE LENGTHS:
 17', 18', 20', 21', 25', 510'



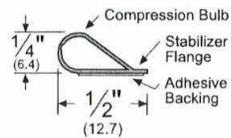
PK55 **BHMA**
 AVAILABLE FINISHES:
 BL, D, W
 AVAILABLE LENGTHS:
 17', 18', 20', 21', 25', 510'



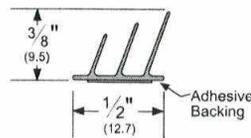
S44 **BHMA**
 AVAILABLE FINISHES:
 BL, D, W
 AVAILABLE LENGTHS:
 17', 18', 20', 21', 25', 510'



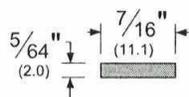
S77 **BHMA**
 AVAILABLE FINISHES:
 C, D, W
 AVAILABLE LENGTHS:
 17', 18', 20', 21', 25'



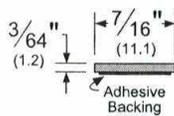
S88 **BHMA**
 AVAILABLE FINISHES:
 BL, C, D, GR, TAN, W
 AVAILABLE LENGTHS:
 17', 18', 20', 21', 25', 30', 204', 510'



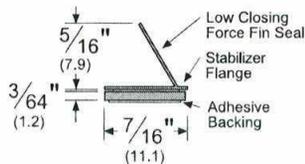
S773 **BHMA**
 AVAILABLE FINISHES: D, W
 AVAILABLE LENGTHS: 17', 18', 20', 21', 25'



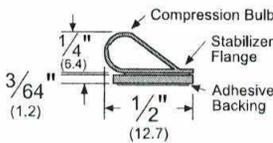
HSS1000 **BHMA**
 AVAILABLE FINISHES:
 Graphite (no code), W
 AVAILABLE LENGTHS:
 7', 8', 10', 18', 21', 24'



HSS2000 **BHMA**
 AVAILABLE FINISHES:
 Graphite (no code), W
 AVAILABLE LENGTHS:
 7', 8', 10', 18', 21', 24'



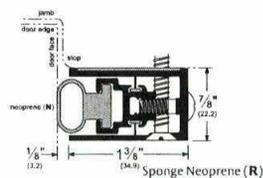
HSS2000xS44 **BHMA**
 AVAILABLE FINISHES:
 BL, D, W
 AVAILABLE LENGTHS:
 18', 20', 21', 24'



HSS2000xS88 **BHMA**
 AVAILABLE FINISHES:
 BL, C, D, GR, TAN, W
 AVAILABLE LENGTHS:
 18', 20', 21', 24'

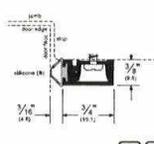
PERIMETER GASKETING

Adjustable Jamb Weatherstrip



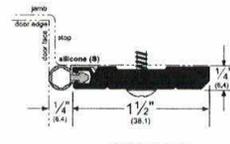
322_SN
 AVAILABLE FINISHES: C, D, G

Snap Cover - Concealed Fasteners



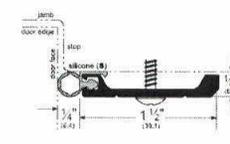
29310_S **BHMA**
 AVAILABLE FINISHES: C, D, G
 ADDITIONAL INSERTS: P, PK, V

Heavy Duty-Head Section



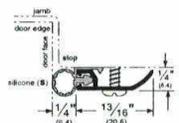
2891_S **BHMA**
 AVAILABLE FINISHES: A, D, G
 ADDITIONAL INSERTS: PK, V

Heavy Duty-Standard Jamb

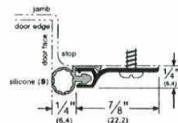


290_S **BHMA**
 AVAILABLE FINISHES: A, D, G
 ADDITIONAL INSERTS: PK, V

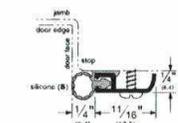
Standard Perimeter Gasketing



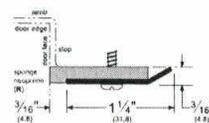
297_S **BHMA**
 AVAILABLE FINISHES: A, BDG, D, G, PW, SN
 ADDITIONAL INSERTS: PK, V



303_S **BHMA**
 AVAILABLE FINISHES: A, BDG, D, G, PW, SN
 ADDITIONAL INSERTS: PK, V



316_S **BHMA**
 AVAILABLE FINISHES: A, BDG, D, G
 ADDITIONAL INSERTS: PK, V



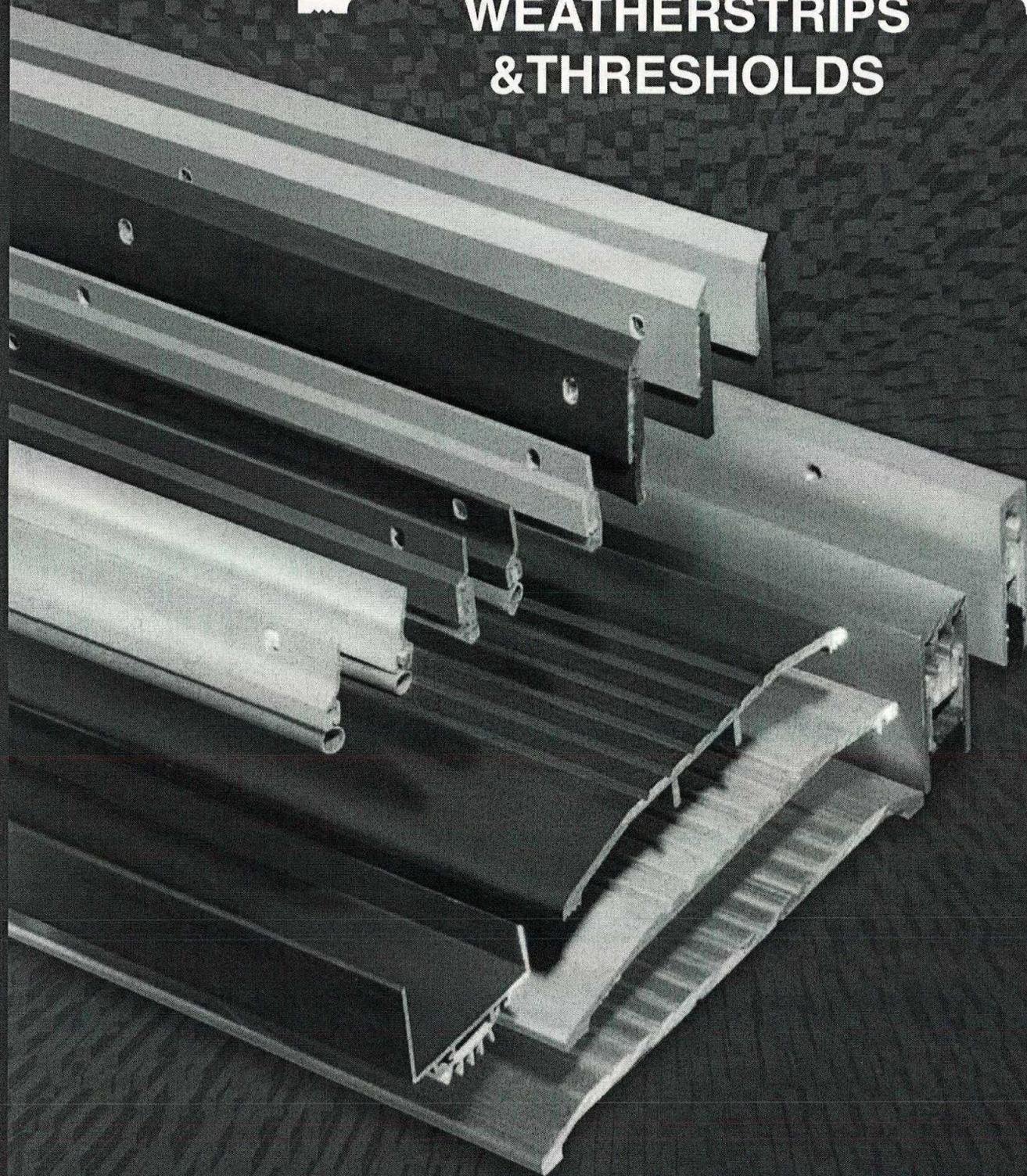
315SSR **BHMA**
 AVAILABLE FINISH: SS (#4 Finish)

NOTE: ALTERNATE INSERTS MAY CARRY DIFFERENT RATINGS. SEE FULL LINE CATALOG OR WEBSITE FOR MORE INFORMATION.

 **Reese**



**WEATHERSTRIPS
& THRESHOLDS**



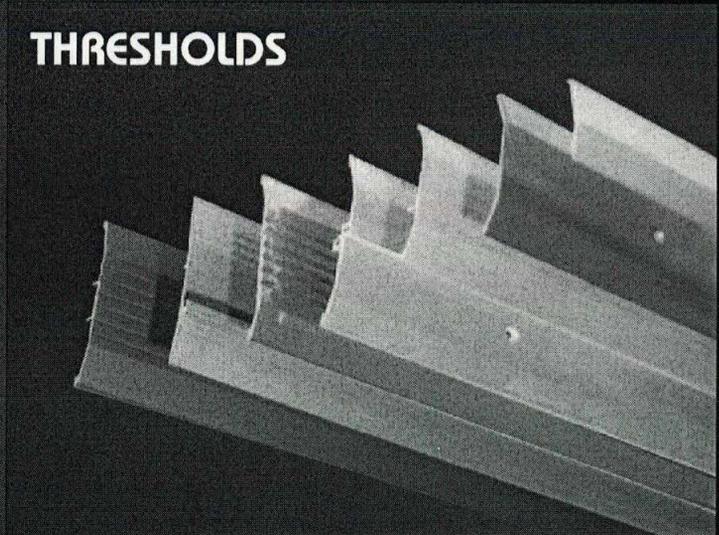
Phone 1-800-328-0953
Fax 1-800-334-8823
www.reeseusa.com

Continuous Service and Quality

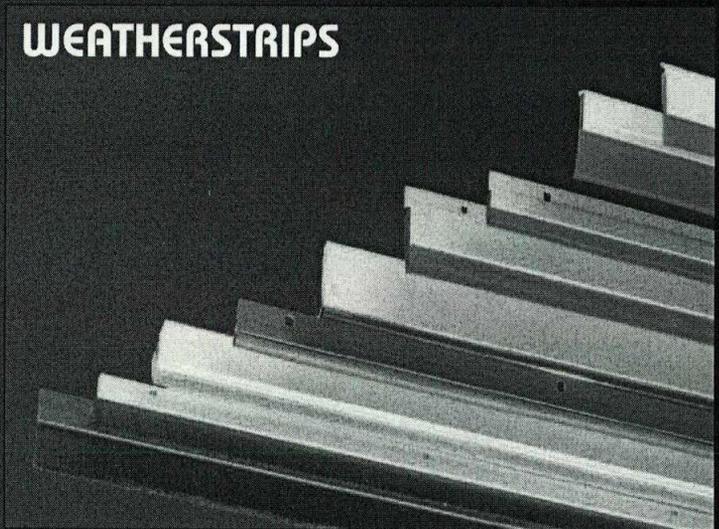
Reese Enterprises, Inc. has more than 80 years experience in manufacturing weatherstrips along with many other door & floor products. During that time, we have devoted both time and dollars to product development, research and testing. Our highest valued asset, however, is you — our customer. That's why you'll talk to a pleasant, helpful person when you call Reese. No answering machines or recorded menus. Call us and hear for yourself.



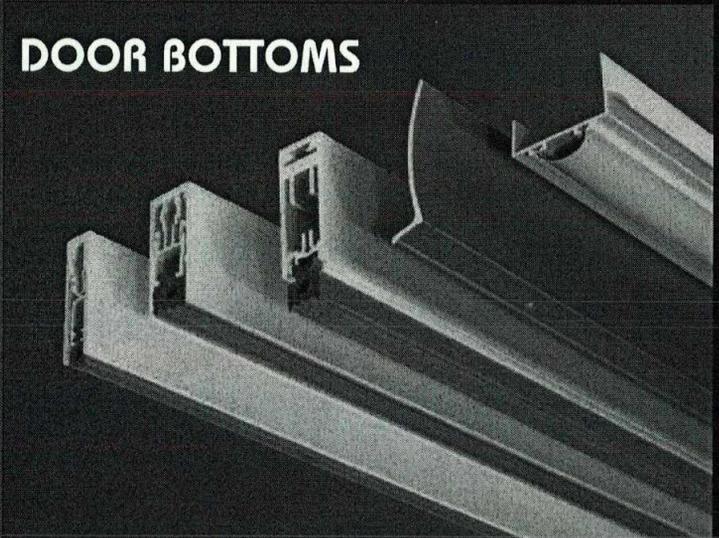
THRESHOLDS



WEATHERSTRIPS

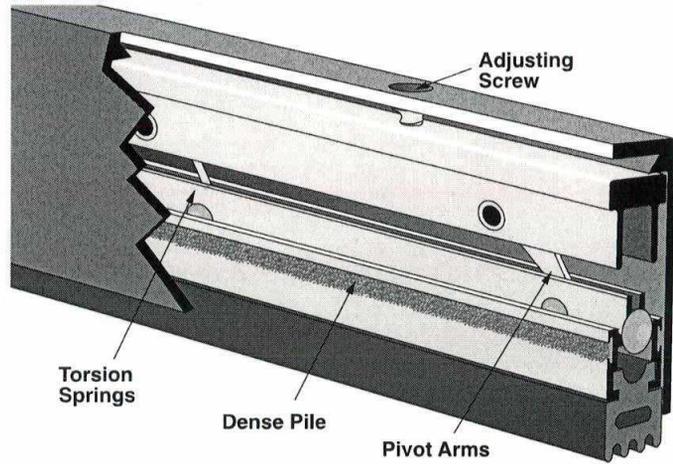


DOOR BOTTOMS

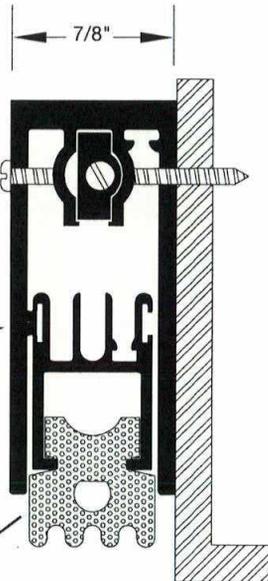
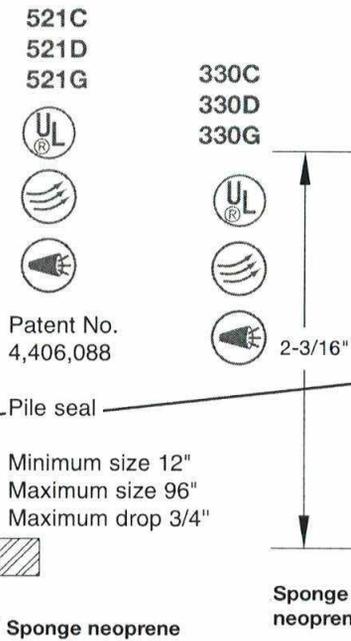
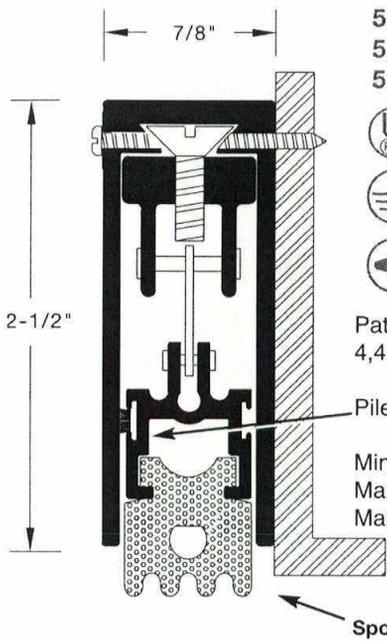


Automatic door bottoms: 18" to 24" cannot be trimmed. 36", 42" and 48" can be trimmed up to 3". Other sizes can be trimmed up to 1". Part 370 can be trimmed up to 2" in all sizes.

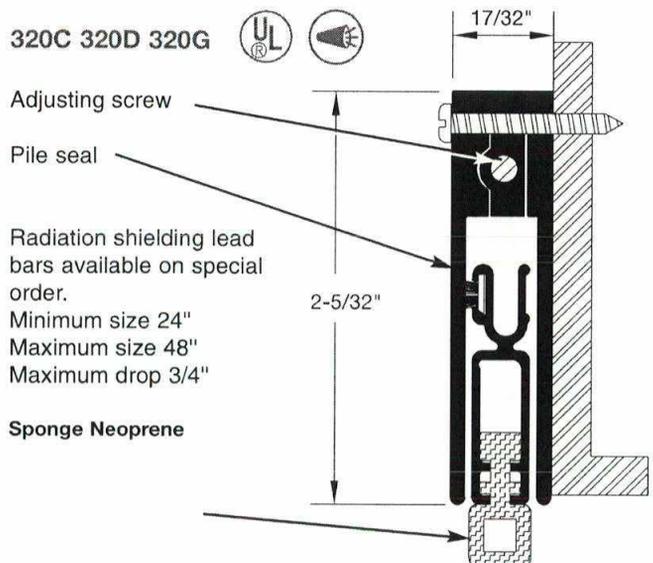
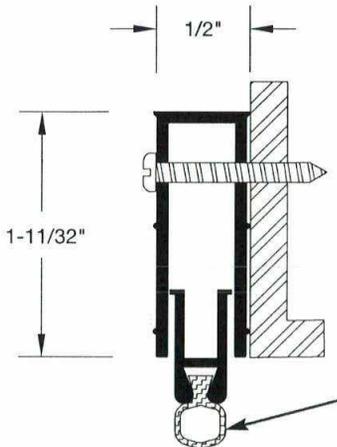
The Reese No. 521 Automatic Door bottom offers positive sound control for all swinging doors up to 8 feet wide. Our patented design combines low operating force with an adjustable sealing bar. Used in conjunction with Reese No. 599 Head and Jamb Seal, it achieved an amazing STC Rating of 46! See page 27 for test results.



PLEASE NOTE:
Door bottoms are not designed to seal directly on carpet. For best results door bottoms should seal on a solid surface. The solid surface should be positioned above the level of the floor covering on either side of the door. Door bottoms are field reversible and can be used in semi-mortised applications.

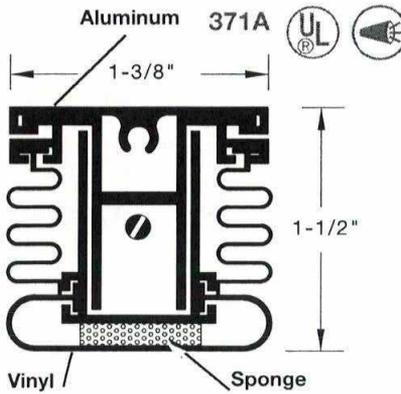
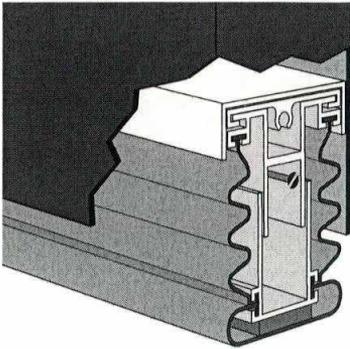


Minimum size 24"; Maximum size 48"; Maximum drop 3/4"



Minimum size 24"
Maximum size 48"
Maximum drop 3/4"

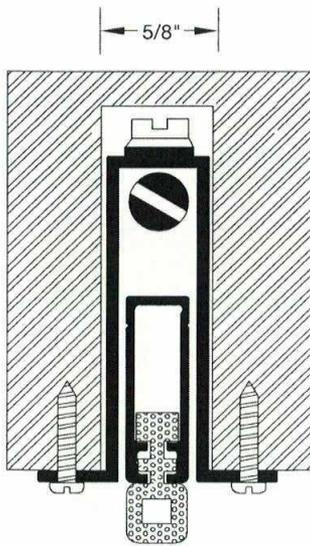
Automatic door bottom sizes: 18" to 24" cannot be trimmed. 36", 42" and 48" can be trimmed up to 3". Other sizes can be trimmed up to 1". Part 370 can be trimmed up to 2" in all sizes.



Now for the first time, an automatic door bottom with a flexible accordion type gasket that provides a full 1-1/4" surface contact with the floor. Helps prevent sound and air from passing over the dropbar. Sound transmission loss ratings up to STC 50 have been achieved by several door manufacturers using the 371 door bottom in conjunction with their sound rate door systems.

Minimum size 24"
Maximum size 60"
Maximum drop 3/4"

Patent 3,871,133

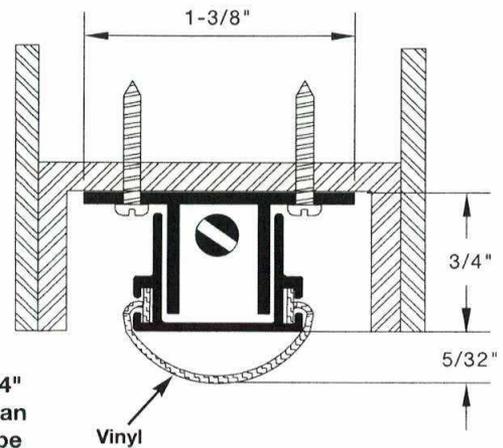


372A **FOR HOLLOW METAL DOORS**

Completely concealed in bottom channel of hollow metal doors.

Minimum size 24"
Maximum size 48"
Maximum drop 1/2"
36" pre-cut to 35-1/2"

Automatic door bottom sizes: 18" to 24" cannot be trimmed. 36", 42" and 48" can be trimmed up to 3". Other sizes can be trimmed up to 1". Part 370 can be trimmed up to 2" in all sizes.



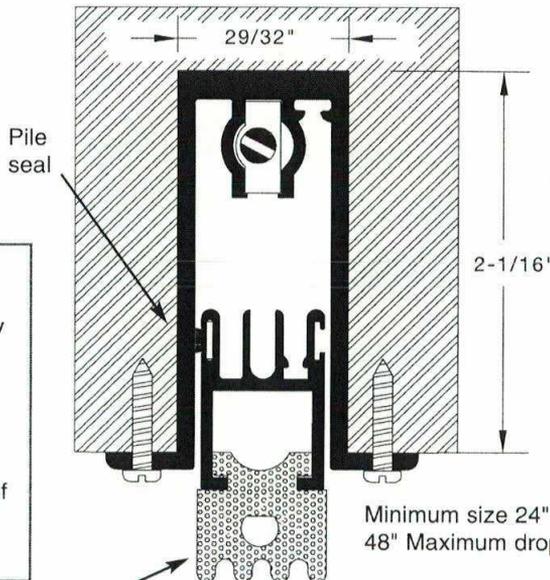
370A
With sponge neoprene in bar



370A LEAD
With lead in bar for X-ray shielding
Minimum size 24"
Maximum size 60"
Maximum drop 3/4"

PLEASE NOTE:
Door bottoms are not designed to seal directly on carpet. For best results door bottoms should seal on a solid surface. The solid surface should be positioned above the level of the floor covering on either side of the door.

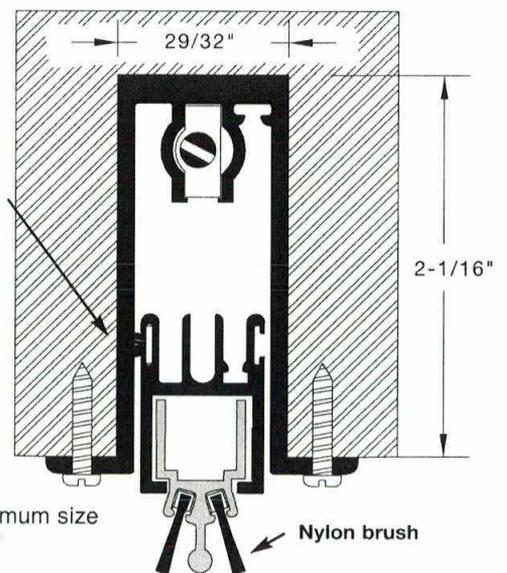
430A



Minimum size 24" Maximum size 48" Maximum drop 3/4"

Sponge neoprene

943A



Nylon brush

APPENDIX D

Pertinent Section of Previous Eilar Associates Acoustical Report

Eilar Associates, Inc.

Verizon Kohler 40 kW Standby Generator

The noise emission of a Kohler model 40 kW standby generator measured at 10 feet from the unit is 87.3 dBA. This similar equipment noise measurement was made at Valley Parkway in Escondido on Monday, August 18, 2003 at 2:15 p.m. The conditions were high 80's, no measurable wind, moderate humidity. The measured octave data for the two similar operational units are presented in Table 5.

Table 5. Octave Data Table Kohler Model 40 Generator									
Octave Band Frequency (Hertz)	63	125	250	500	1K	2K	4K	8K	L _{EQ} (dBA)
West Side at 10 feet	86.2	86.2	87.3	80.2	84.3	81.4	74.4	69.7	87.3

APPENDIX E

Barnmaster Shelter Details

DESIGNED BY :

ZJS Engineering Services Inc.

14189 FOOTHILL BLVD SUITE 101
FONTANA, CA 92335
PHONE: (909) 823-4150 FAX: (909) 823-4153

FOR :



BARNMASTER, INC.
PO BOX 880, LAKESIDE, CA 92040
(619) 390-6000 - FAX: (619) 390-6009
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PROJECT : BAY CITY ELECTRIC

LOCATION : 12208 INDUSTRY RD.
LAKESIDE, CA

DESCRIPTION : 9'-10"x11'-2"x8' GABLE FREESPAN BLDG.

TYPE OF OCCUPANCY : U
TYPE OF CONSTRUCTION : V, ONE STORY, APPR 8'-10" HIGH
FLOOR AREA : 110 FT²

GENERAL NOTES :

THESE NOTES SHALL APPLY UNLESS SHOWN OTHERWISE ON PLANS:

- 1 ALL WORK SHALL CONFORM TO THE 2007 CALIFORNIA BUILDING CODE, A.I.C. AND/OR THE LOCAL BUILDING CODE.
- 2 DESIGN SOIL BEARING PRESSURE VALUE IS 1600 PSF FOR DEAD LOAD PLUS LIVE LOAD PER TABLE 1604.2 OF 2007 CBC. FOUNDATION DETAILS SHOWN ARE BASED ON MINIMUM CODE REQUIREMENTS. FOUNDATION IS SUBJECT TO APPROVAL BY LOCAL ENFORCEMENT AGENCY DUE TO SPECIAL AND/OR SITE CONDITIONS PRESENT.
- 3 ALL DIMENSION ARE TO THE CENTER LINE OF COLUMNS/WALLS. ALL FOOTINGS SHALL REST 12 IN. MIN. BELOW NATURAL GRADE AND FINISHED GRADE, WHICHEVER IS LOWER. ALL FOOTINGS SHALL REST ON FIRM, UNDISTURBED SOIL WHERE FROST LINE DEPTH MAY PRESENT A PROBLEM, OWNER SHALL CONSULT WITH LOCAL BUILDING DEPARTMENT FOR RECOMMENDATIONS AS TO REQUIRED DEPTH OF FOOTING.
- 4 CONCRETE SHALL HAVE A MINIMUM STRENGTH OF 2500 PSI @ 28 DAYS USING AT LEAST 5 SACKS OF CEMENT PER YARD AND NO MORE THAN 7 1/2 GALLONS OF WATER PER SACK OF CEMENT.
- 5 ALL WELDING SHALL BE DONE BY CERTIFIED WELDERS AND IN ACCORDANCE WITH THE LATEST A.W.S. SPECIFICATIONS. CONTINUOUS INSPECTION WILL NOT BE REQUIRED SINCE WELDS WILL BE LESS THAN 5/16" SINGLE-PASS FILLET WELDS (SEC 1704.3 OF C.B.C 2007) NO FIELD WELDING.
- 6 ALL STRUCTURAL STEEL MEMBERS SHALL BE GALVANIZED, UNLESS NOTED OTHERWISE ON PLAN.
- 7 ALL SELF-DRILLING SCREWS SHALL BE "TEKS" AS MANUFACTURED BY BUILDEX, OR EQUIVALENT.
- 8 NO STRUCTURAL MEMBER SHALL BE CUT FOR PIPES, DUCTS ETC., UNLESS SPECIFICALLY DETAILED.
9. MATERIALS :

ASTM DESIG.:	MINIMUM YIELD (U.N.):
COLD FORMED LIGHT GAGE SHAPES	A570 Fy = 55 KSI
ROOF AND WALL SHEETING	A446,A792 Fy = 50,80 KSI
STRUCTURAL STEEL PLATE	A572 OR A36 Fy = 50 KSI
ROLLED MILL SHAPES	A36 Fy = 36 KSI
BRACING	A36 Fy = 36 KSI
MACHINE BOLTS	A307 Fy = 36 KSI

MATERIAL OF EQUAL, OR BETTER GRADE, MAY BE SUBSTITUTED FOR MATERIALS SHOWN.
- 10 THE CONTRACTOR SHALL VERIFY ALL CONDITIONS AT THE JOB SITE AS SHOWN ON THE DRAWINGS. SHOULD CONDITIONS EXIST WHICH ARE CONTRARY TO THOSE ON THE PLANS, NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- 11 IF EXPANSIVE SOILS ARE ENCOUNTERED ON THE JOB SITE THE ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY.
- 12 LA CITY FABRICATORS LICENSE #1813

LOADING INFORMATION

DEAD LOAD : 2.5 PSF
LIVE LOAD : 20 PSF
SNOW LOAD : 0 PSF
BASIC WIND SPEED : 90 MPH, 3 SECOND GUST
WIND IMPORTANCE FACTOR (Iw) : 0.87
WIND EXPOSURE : C
DESIGN WIND PRESSURE FOR COMPONENTS AND CLADDING : 19.9 PSF, 24.5 PSF
LATITUDE : 32.85944 N
LONGITUDE : 116.92954 W

TABLE OF CONTENT

- C-1 COVER SHEET
- S-1 FLOOR PLAN
- S-2 ROOF FRAMING PLAN
- S-3 SECTION/ELEVATIONS
- S-4 WALL DETAILS
- S-5 ROOF FRAMING DETAILS



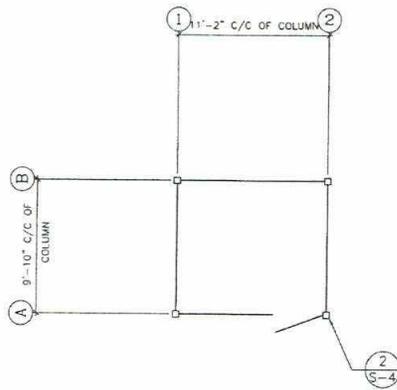
BARNMASTER, INC. 14189 FOOTHILL BLVD SUITE 101 FONTANA, CA 92335 (909) 823-4150 FAX (909) 823-4153

ZJS Engineering Services Inc. 14189 FOOTHILL BLVD SUITE 101 FONTANA, CA 92335 (909) 823-4150 FAX (909) 823-4153

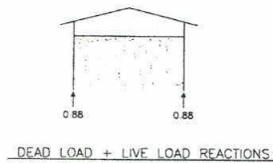
PROJECT: BAY CITY ELECTRIC
LOCATION: 12208 INDUSTRY RD, LAKESIDE, CA
TITLE: COVER SHEET

SHEET NO. C-1
1 OF 8 SHEETS

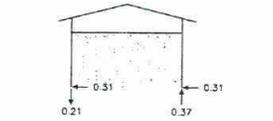
DATE: 01-08-09
DRAWN BY: CM
CHECKED BY:
SCALE: NONE
PROJECT NO.: 22515-09



FLOOR PLAN



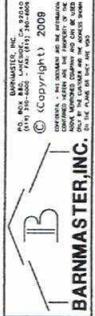
DEAD LOAD + LIVE LOAD REACTIONS



DEAD LOAD + WIND LOAD REACTIONS

FLOOR PLAN NOTES:

1 ALL DIMENSION ARE TO THE CENTERLINE OF COLUMNS/WALLS.

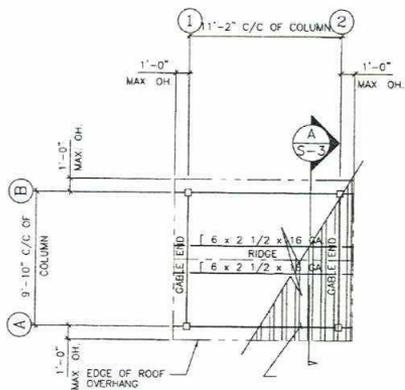


ZJS Engineering Services Inc.
 300 S. WILSON, AVE. SUITE A
 PLEASANTON, CA 94566
 PHONE: (925) 374-1100 FAX: (925) 374-1133

PROJECT: BAY CITY ELECTRIC
 9'-10"x11'-2" GABLE FREESPAN BLDG.
 LOCATION: LAKESIDE, CA
 TITLE: FLOOR PLAN

DESIGNED BY:	DATE:	SCALE:
DRAWN BY:	02-11-2009	AS NOTED
CHECKED BY:		
DATE:		
SHEET NO:		
	S-1	
	2 OF 6 SHEETS	

BARNMASTER, INC.
 15150 14TH STREET, SUITE 100
 IRVINE, CA 92614
 (949) 261-1000
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ROOF FRAMING PLAN

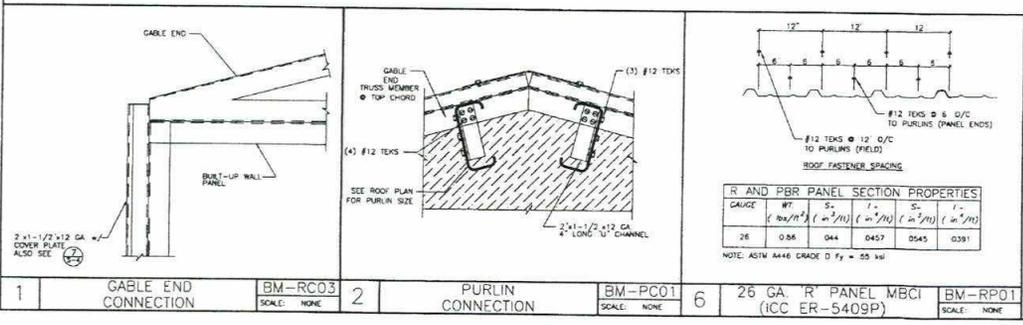


PROJECT: RAY CITY ELECTRIC
 9'-10" x 11'-2" GABLE FREESPAN BLDG.
 LOCATION: LAKESIDE, CA
 TITLE: ROOF FRAMING PLAN

DATE	01-08-09
BY	CM
CHECKED BY	
SCALE	AS NOTED
PROJECT NO.	22515-09
SHEET NO.	S-2
3 OF 6 SHEETS	

**ZJS Engineering
 Services Inc.**
 500 S. WALSH ST. SUITE 4
 GARDENA, CA 91748
 PHONE: (714) 714-1150 FAX: (714) 714-1151

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BARNMASTER, INC.

**ZJS Engineering
 Services Inc.**
 300 S. MILLWOOD AVE. SUITE A
 OAKLAND, CA 94612
 PHONE: (510) 974-1120 FAX: (510) 974-1124

PROJECT: BAY CITY ELECTRIC
 9'-10" x 11'-2" x 8" GABLE FREESPAN BLDG.
 LOCATION: LAKESIDE, CA
 TITLE: ROOF FRAMING DETAILS

REVISION: DATE: BY:

SUBMITTED: 01-08-09
 DRAWN BY: CM
 CHECKED BY:
 SCALE: AS NOTED
 SHEET NO: 22515-05

SHEET NO: S-5
 8 OF 6 SHEETS

APPENDIX F

Sound Insulation Prediction Results

Sound Insulation Prediction (v6.1)

Program copyright Marshall Day Acoustics 2006



Margin of error is generally within +/- 3STC

Job Name:VZW Downtown Julian

Notes:

Job No.:B01001N

Page No.:

Enclosure Assembly Estimate

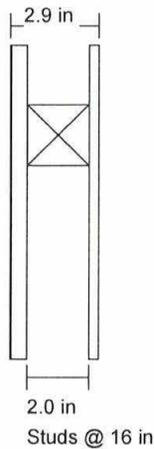
Date: 27 Oct 10

Initials:AH

File Name:insul

1 x 0.0 in Steel
1 x 0.5 in Plywood

1 x 0.3 in Fibre Cement



STC 38

OITC 28

Surface Mass 0.9 lb/ft²

Surface Mass 2.5 lb/ft²

Surface Mass 1.5 lb/ft²

Critical Freq 22679 Hz

Critical Freq 3780 Hz

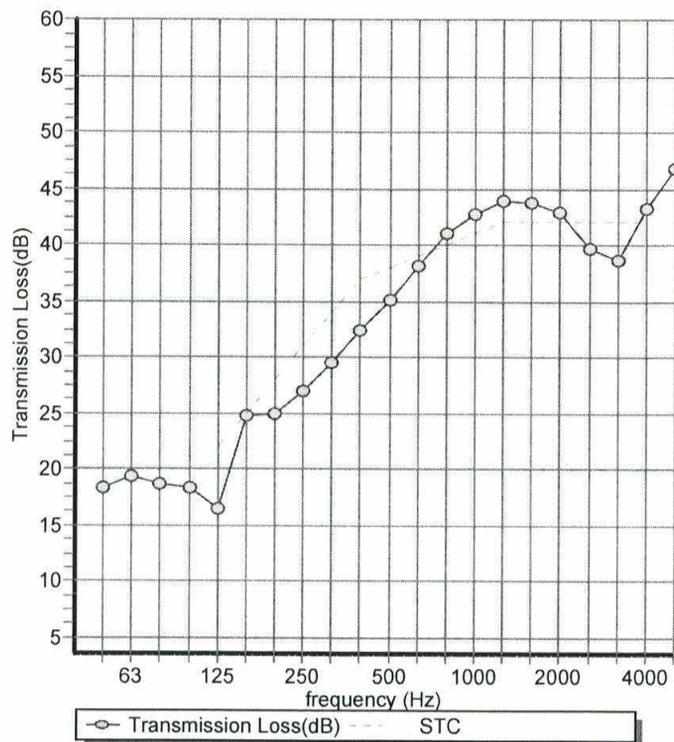
Critical Freq 1828 Hz

damping 0.01

damping 0.01

Panel damping 0.01

frequency (Hz)	TL(dB)	TL(dB)
50	18	
63	19	19
80	19	
100	18	
125	17	19
160	25	
200	25	
250	27	27
315	30	
400	32	
500	35	35
630	38	
800	41	
1000	43	42
1250	44	
1600	44	
2000	43	42
2500	40	
3150	39	
4000	43	42
5000	47	



APPENDIX G

Cadna Analysis Data and Results

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Sound Levels													
Name	ID	Type	Oktave Spectrum (dB)										Source
			63	125	250	500	1000	2000	4000	8000	A	lin	
Kohler 30 kW w/o Enclosure	L_1	Li	106.3	106.3	107.4	100.3	104.3	101.5	94.5	90.3	108	112.9	BCEW & Measurement
Kohler 30 kW w/ sound enclosure	L_2	Li	91.7	91.7	92.8	85.7	89.8	86.9	79.9	75.2	93.5	98.3	BCEW & Measurement

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Sound Reduction Indices											
Name	ID	Oktave Spectrum (dB)									Source
		63	125	250	500	1000	2000	4000	8000	Rw	
Wall Assembly	TL_1	19	19	27	35	42	42	42		38	INSUL
Louver	TL_2	6	9	10	11	15	19	17	16	16	Manufacturer Info
Metal Door w/o Seals	TL_3	12	13	15	16	17	18	20		18	Noise Ctl in Bldgs
Metal Door w/ Seals	TL_5	21	24	28	30	30	36	39		33	Noise Ctl in Bldgs

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Horizontal Area Sources (Unmitigated Model)							
Name	ID	Result. PWL	Result. PWL"	Lw / Li		Sound Reduction	
		Day	Day	Type	Value	R	Area
		(dBA)	(dBA)				(m ²)
Roof	S_1	80.1	69.5	Li	L_1	TL_1	11.8

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Vertical Area Sources (Unmitigated Model)								
Name	ID	Result. PWL	Result. PWL"	Lw / Li		Sound Reduction		K0
		Day	Day	Type	Value	R	Area	
		(dBA)	(dBA)				(m ²)	(dB)
North Wall	S_2	78.8	69.4	Li	L_1	TL_1	8.81	3
East Wall	S_3	78.3	69.4	Li	L_1	TL_1	7.91	3
South Wall	S_4	78.8	69.4	Li	L_1	TL_1	8.76	3
West Wall	S_4	78.3	69.4	Li	L_1	TL_1	7.76	3
Louver	S_5	87.6	88.2	Li	L_1	TL_2	0.91	3
Door	S_6	88	84.4	Li	L_1	TL_3	1.94	3

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Unmitigated Noise Levels at Receivers						
Name	ID	Level Lr	Height	Coordinates		
		Day		X	Y	Z
		(dBA)	(m)	(m)	(m)	(m)
North PL	R_1	58.2	1.52	97.8	0.71	1.52
South PL	R_2	39.2	1.52	101.88	-100.13	1.52
East PL	R_3	65.3	1.52	106.4	-14.17	1.52
West PL	R_4	40.2	1.52	0.24	-12.4	1.52
On-Site Hotel	R_5	54.3	1.52	80.44	-20.94	1.52

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Horizontal Area Sources (Mitigated Model)							
Name	ID	Result. PWL	Result. PWL"	Lw / Li		Sound Reduction	
		Day (dBA)	Day (dBA)	Type	Value	R	Area (m ²)
Roof	S_1	65.5	54.9	Li	L_2	TL_1	11.8

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Vertical Area Sources (Mitigated Model)								
Name	ID	Result. PWL	Result. PWL"	Lw / Li		Sound Reduction		K0
		Day	Day	Type	Value	R	Area	
		(dBA)	(dBA)				(m ²)	(dB)
North Wall	S_2	64.2	54.8	Li	L_2	TL_1	8.81	3
East Wall	S_3	63.7	54.8	Li	L_2	TL_1	7.91	3
South Wall	S_4	64.2	54.8	Li	L_2	TL_1	8.76	3
West Wall	S_4	63.7	54.8	Li	L_2	TL_1	7.76	3
Louver	S_5	73	73.7	Li	L_2	TL_2	0.91	3
Door	S_6	59.7	56.1	Li	L_2	TL_5	1.94	3

EILAR ASSOCIATES, INC.
Acoustical and Environmental Consulting

Cadna Noise Model - Mitigated Noise Levels at Receivers						
Name	ID	Level Lr	Height	Coordinates		
		Day		X	Y	Z
		(dBA)	(m)	(m)	(m)	(m)
North PL	R_1	40.7	1.52	100.04	0.71	1.52
South PL	R_2	24.4	1.52	101.88	-100.13	1.52
East PL	R_3	45.0	1.52	105.96	-17.99	1.52
West PL	R_4	23.1	1.52	0.24	-12.4	1.52
On-Site Hotel	R_5	39.4	1.52	80.44	-20.94	1.52