

Lemos, June

From: Mark Wolfe <mrw@mrwolfeassociates.com>
Sent: Friday, July 23, 2021 3:52 PM
To: Lemos, June
Subject: Letter to City Council re: Appeal of Grocery Outlet (7/26/21 Public Hearing)
Attachments: Ltr to City Council re GO Appeal_7-23-21-1.pdf

Dear Madam Clerk:

Attached in PDF format please find correspondence addressed to the City Council concerning the referenced appeal of the Planning Commission's approval of entitlements for the proposed Best Development/Grocery Outlet project. Please distribute to Councilmembers in advance of the July 26, 2021 public hearing on the appeal.

As I indicated in a previous email, I had made plans to be out of town on July 26 based on the assumption that the appeal hearing would take place as originally scheduled on July 12. While I will try my best to participate by Zoom, I won't know what my internet access will be until the day of the hearing. In the event I do not appear by Zoom, I would be grateful if you could relate my circumstances to the City Council and ensure that their attention is called to the attached letter.

Thank you very much, and I would also be grateful if you could acknowledge receipt of this email and its attachment.

- Mark Wolfe

On behalf of appellants Ken Armstrong and FB Local Business Matters

Mark R. Wolfe
M. R. Wolfe & Associates, P.C. | Attorneys
Land Use | Environmental Law | Elections

****PLEASE NOTE OUR NEW ADDRESS****

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The information in this e-mail may contain information that is confidential and/or subject to the attorney-client privilege. If you have received it in error, please delete and contact the sender immediately. Thank you.

July 23, 2021

By E-Mail

City Council
City of Ft. Bragg
c/o City Clerk
416 N. Franklin Street
Ft. Bragg, CA 95437
Jlomos@fortbragg.com

**Re: Appeal of Planning Commission Decision – Grocery Outlet at
825 S. Franklin St. [Coastal Development Permit 8-19; Design
Review 1-19; Parcel Merger 1-19]**

Dear Members of the City Council:

On behalf of Ken Armstrong and FB Local Business Matters, we respectfully ask that you UPHOLD their appeal of the above-referenced decision by the Planning Commission to approve a Grocery Outlet at 825 S. Franklin St. (“Project”). As described below and in the attached technical reports, the analysis of environmental impacts in the Initial Study and Mitigated Negative Declaration (“IS/MND”) prepared for the Project is deficient, and there is substantial evidence that the Project not only may but will have significant adverse impacts on air quality and noise. For these reasons, the City Council should decline to approve the Project at this time, and instead direct staff to prepare an environmental impact report (“EIR”) in accordance with CEQA before taking further action on the matter.

Background

In timely written comments on the IS/MND, Mr. Armstrong objected that there was no analysis of the impacts from diesel exhaust emissions from delivery trucks serving the Project on nearby residences. Mr. Armstrong further objected that the IS/MND contained no actual analysis of noise impacts from delivery trucks, loading/unloading activities, and customer vehicles on these same residences. After reviewing the staff responses to his comments, which did not include the analyses he had requested, Mr. Armstrong submitted additional comments to the Planning Commission seeking these studies. When neither staff nor Planning Commissioners addressed his concerns in any meaningful way, this appeal followed.

Given the City's repeated refusal to perform actual, quantitative analyses of the Project's air quality and noise impacts on nearby residences, at Mr. Armstrong's and FBLBM's request, we asked experts in air quality and noise impacts assessment to undertake them, using the data and other supporting information contained in the IS/MND. Raman Kapahi of the environmental consulting firm Environmental Permitting Specialists evaluated impacts from emissions of diesel exhaust and other air pollutants, and Derek Watry of the acoustical consulting firm Wilson Ihrig examined noise impacts. Copies of their technical reports are attached to this letter, together with their respective qualifications, and are incorporated by reference here.

Please note that the Air Quality Appendix to the IS/MND was not provided on the City's website, or to us directly, until July 22, 2022. This Appendix contains information necessary for Mr. Kapahi's review. His letter is thus submitted under objection to the late provision of material information in the IS/MND.

Substantial Evidence Shows the Project Will have Significant Air Quality and Noise Impacts

Mr. Kapahi first points out that the CalEEMod air emissions modeling output in Appendix F to the IS/MND itself discloses that the Project's overall unmitigated operational emissions will exceed applicable significance thresholds for PM10 and PM2.5. He then reports the results of a screening level dispersion modeling analysis he performed using emissions data in Appendix F, which shows an exceedance of the 1-hour ambient NOx standard at locations up to 250 meters away.

Mr. Kapahi then reports the results of screening level health risk assessment that estimated increased cancer risk from exposure to diesel particulate matter (a toxic air contaminant) at nearby residences. His analysis shows that although the increased health risk attributable to the Project by itself is not significant, the cumulative health risk is in fact significant when considered in tandem with diesel particulate/TAC emissions from existing vehicle traffic on Highway 1 as reported in the IS/MND's Traffic Impact Analysis.¹

Mr. Watry for his part affirms that the IS/MND contains no quantitative, technical analysis of the Project's noise impacts whatsoever, yet still somehow finds the Project would have a less than significant noise impact after mitigation. Mr. Watry accordingly performed a quantitative analysis of construction noise using the Federal

¹ According to the Traffic Impact Analysis in Appendix C to the IS/MND: "The most recent traffic volume data available for the California Department of Transportation (Caltrans) indicates that SR 1 carries an Annual Average Daily Traffic (AADT) volume of 21,200 vehicles per day (vpd) south of Cypress Street, with the daily volume rising to 24,200 vpd in the peak month. Trucks comprise about 3% of the daily traffic in this area." See p. 6.

Highway Administration's Roadway Construction Noise Model (RCNM), and inputting the construction equipment identified in the IS/MND itself. He found that the construction noise will exceed acceptable noise levels at nearby residences, but that the mitigation measures prescribed in the IS/MND would do nothing to reduce them to less than significant levels.

With respect to operational noise impacts, Mr. Watry again observed that while operational noise sources are described in the IS/MND, no formal threshold of significance is established, and the claim that "operational activities would not be anticipated to significantly impact surrounding land uses" is completely unsubstantiated. Using traffic data contained in the IS/MND's traffic impact analysis, and noise levels for standard grocery store delivery trucks (air conditioning condensers, fans etc.), Mr. Watry calculated noise levels at residences 100 feet from the Project in excess of City standards.

Under Public Resources Code section 21080(d), if there is substantial evidence in light of the whole record before a lead agency that a project it intends to carry out or approve may have a significant effect on the environment, the lead agency must prepare an EIR. Under Public Resources Code section 21080(c)(1), a lead agency may adopt a negative declaration or mitigated negative declaration for a project, only if an initial study shows there is no substantial evidence in light of the whole record before the agency that the project may have a significant effect on the environment. If a lead agency is presented with a "fair argument" that a project may have a significant effect on the environment, the lead agency shall prepare an EIR, even though it may also be presented with other substantial evidence that the project will not have a significant effect. *No Oil, Inc. v. County of Los Angeles* (1974) 13 Cal. 3d 68; 14 Cal.Code.Regs. § 15064(f)(1).

For purposes of CEQA, "substantial evidence" is defined as including: "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." 14 Cal.Code.Regs § 15064(f) (5), underline added. Thus, if there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the lead agency "shall treat the effect as significant and shall prepare an EIR." *Id.* at subd. 15064(g).

Here, the opinions of Mr. Kapahi and Mr. Watry plainly constitute expert opinion supported by facts that the Project may have a significant environmental effects. Under these circumstances, CEQA requires preparation of a full EIR before the Project may lawfully be approved.

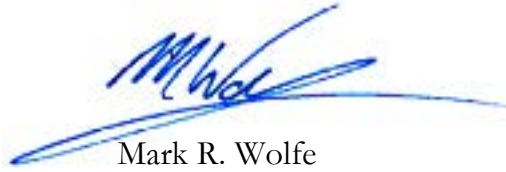
Conclusion

For the foregoing reasons, the City Council should UPHOLD the appeals and decline to approve the Project unless and until a full EIR is prepared.

Thank you for your consideration of these concerns.

Most sincerely,

M. R. WOLFE & ASSOCIATES, P.C

A handwritten signature in blue ink, appearing to read 'M Wolfe', with a long horizontal flourish extending to the right.

Mark R. Wolfe
On behalf of Ken Armstrong and
FB Local Business Matters

MRW:sa
attachments

ATTACHMENT 1

ATTACHMENT 1

ATTACHMENT 1

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TECHNICAL MEMORANDUM

To: Mark R. Wolfe
Attorney at Law
M. R. Wolfe & Associates, PC
San Francisco, CA 94583

Date: July 22, 2021

From: Ray Kapahi *RK*
Tel: 916-687-8352
Tel: 916-687-8352
E-Mail: ray.kapahi@gmail.com

Subject: Impacts to Air Quality and Public Health Associated with Proposed Grocery Outlet in Fort Bragg, California

We have completed our analysis of selected air emissions associated with the above noted project. Our analysis focused on emissions of criteria air pollutants and toxic air contaminants (TACs) during the operational (post-construction) phase. We note that the CEQA Initial Study (IS) did not quantify daily emissions even though the document references the thresholds of significance (Table 2) set forth by Mendocino County AQMD.

Project Would Lead to Significant Air Quality Impacts

Our review of the IS found that emissions of PM-10 and PM-2.5 during the operational phase would exceed the thresholds of significance (Table 2) set forth by Mendocino County AQMD thresholds of significance. We calculate the daily operational emissions of PM-10 emissions to equal 1,377 lbs/day, based on the CalEEMod modeling output appended to the IS/MND (Page 5 of 36 Appendix F), which shows 251.3517 tons/year of total PM-10. The applicable threshold of significance is set to 82 lbs/day. ***This is more than 16 times the daily threshold of significance.***

Similarly, operational PM-2.5 emissions would also exceed the thresholds of significance. Project emissions are estimated to equal 138 lbs/day versus significance threshold of 54 lbs/day (25.165 tons/year). ***This is more than 2.5 times above the daily threshold of significance.***

The IS concluded that because overall vehicle miles travelled will be reduced therefore the project impacts are considered less than significant. This logic is flawed. Under CEQA, air quality impacts are significant if emissions exceed applicable air quality standards and/or expose sensitive receptors to significant pollutant concentrations. (Ref: CEQA Guidelines 15357, 15377, 15378). Effects on vehicle miles traveled may be relevant for assessing transportation impacts, but not on these air quality impacts.

Project Would Violate Ambient Air Quality Standards

Our analysis found that the California 1-Hour NO_x standard (339 ug/m³) would be exceeded during the construction phase (demolition, site preparation and grading). Using emissions data from Appendix F construction phase, a screening level dispersion modeling analysis was completed. The results show that the 1-hour ambient NO_x standard would be exceeded for location up to 250 meters (820 feet). See Exhibit 1.

Cumulative cancer risks are significant

State Route 1 (SR-1) carries an average of 21,200 vehicles per day. Of this volume, 97% are autos and light trucks. The remaining 3% are heavy duty trucks. Our analysis shows that the release of toxic air contaminants from automobiles, light and heavy duty trucks, namely in the form of diesel particulate matter (DPM), would lead to significant cumulative health risks. DPM is a carcinogenic air pollutant classified by the State of California as a “toxic air contaminant” (TAC) that causes serious health problems in people exposed to it over time. TACs can cause long-term health effects such as cancer, asthma, bronchitis, heart disease, and decreased lung disease, particularly in children.¹

Specifically, a screening level risk analysis was completed that showed a cancer risk score above 10 for locations within 250 meters (820 feet) of SR-71. There are numerous homes within this distance that show significant cancer risk impact. The incremental increase from cancer risk associated with the Grocery Outlet project were found to be small (cancer risk score below 0.01). However, the cumulative cancer risk is considered significant. See Exhibit 2.

Conclusion

Based on our review, we conclude the Grocery Outlet project will exceed at least one applicable ambient air quality standard, and will likely result in a cumulatively significant increase in health risks resulting from increased emissions of DPM. These are significant impacts that warrant more meaningful analysis than contained in the IS.

¹ See California Air Resources Board, “Diesel Exhaust & Health,” at: <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>

EXHIBIT 1

Screening Level Modeling Analysis for On-Site NOx Emissions During the Demolition, Site Preparation and Grading Phases

07/22/21

15:51:48

*** SCREEN3 MODEL RUN ***
 *** VERSION DATED 13043 ***

C:\Lakes\Screen View\FortBraggNOx.scr

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA
 EMISSION RATE (G/(S-M**2)) = 0.122876E-03
 SOURCE HEIGHT (M) = 5.0000
 LENGTH OF LARGER SIDE (M) = 81.2292
 LENGTH OF SMALLER SIDE (M) = 81.2292
 RECEPTOR HEIGHT (M) = 0.0000
 URBAN/RURAL OPTION = URBAN

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
 THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

 *** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
10.	464.9	4	1.0	1.0	320.0	5.00	45.
100.	1028.	5	1.0	1.0	10000.0	5.00	45.
200.	546.6	5	1.0	1.0	10000.0	5.00	44.
300.	322.2	5	1.0	1.0	10000.0	5.00	45.
400.	212.8	5	1.0	1.0	10000.0	5.00	44.
500.	152.2	5	1.0	1.0	10000.0	5.00	45.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 10. M:

90. 1047. 5 1.0 1.0 10000.0 5.00 45.

 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M**3)	DIST TO MAX (M)	TERRAIN HT (M)
-----	-----	-----	-----

SIMPLE TERRAIN 1047. 90. 0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **

Plots: Automated Distance Vs. Concentration - Terrain Height = 0.00 m.



Options...

Automated Distance Vs. Concentration

Terrain Height = 0.00 m.

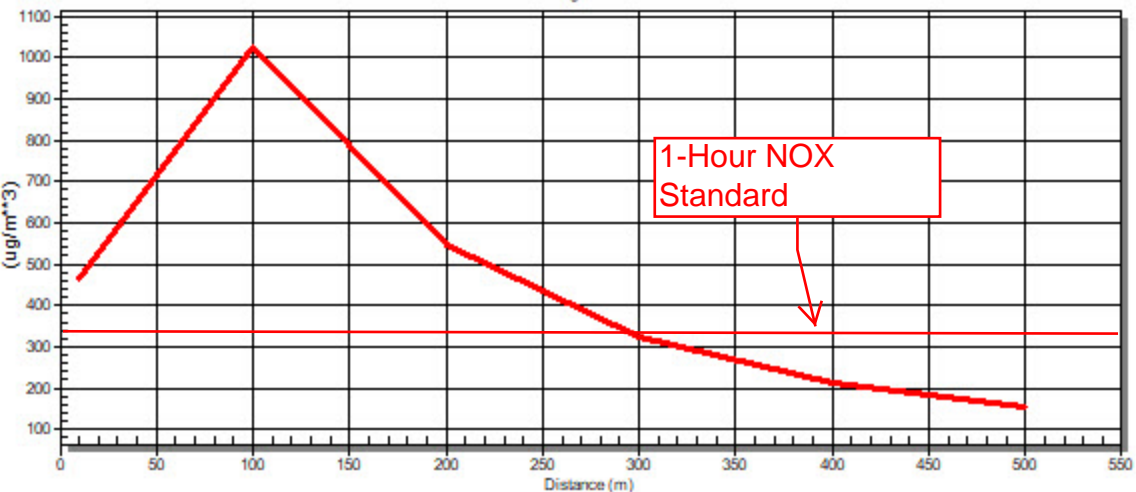


EXHIBIT 2

Estimate of TACs from SR-1 (Automobiles 97%)

Average No. of Autos per Day		20,564	veh/day total		
[Ref.CalEEMod Section 4.2 (PDF Page 66)]		7,505,860	veh/yr total		
Length of Roadway		1	mile		
Annual Miles per Roadway Segment		7,505,860	miles/yr		
		Emission Rate (Vehicle Travel)			
TAC	% By Wt	(g/mile)	(g/yr)	(lb/yr)	
1,3 Butadiene	0.242726	3.95E-05	296.764	0.654	
Acetaldehyde	0.90012	1.47E-04	1100.514	2.424	
Benzene	3.890986	6.34E-04	4757.236	10.478	
Formaldehyde	2.148524	3.50E-04	2626.850	5.786	
Styrene	0.218529	3.56E-05	267.180	0.589	
Toluene	4.754084	7.74E-04	5812.485	12.803	
o-Xylene	1.611576	2.63E-04	1970.361	4.340	
p-Xylene	1.195047	1.95E-04	1461.100	3.218	
NOTES					
1. THC Emissions in Grams/mile	0.016289	g/mile			
[From EMFAC 2017 for CY 2021 for California]					
2. Speciation data (% By Wt) from "Organic Gas Speciation Profiles for Catalyzed Gasoline Powered Vehicle Stabilized Running Exhaust (Dec 12, 2013)					
Available at: https://ww3.arb.ca.gov/ei/speciate/profilereference/cate6running_og2303&04.pdf					

Estimate of TACs from SR-1 (Trucks 3%)

Average No. of Trucks per Day		636 veh/day total [3% of Total AADT]			
		232,140 veh/yr total			
Length of Roadway		1 mile			
Annual Miles per Roadway Segment		232,140 miles/yr			
		Emission Rate (Vehicle Travel)			
TAC	Fraction	(g/mile)	(g/yr)	(lb/yr)	
DPM	1	3.27E-02	7590.144	16.718	
NOTES					
1. THC Emissions in Grams/mile	0.016289	g/mile			
[From EMFAC 2017 for CY 2021 for California					

Estimate of Screening Level Health Risks

	A	B	C	D	E	F	G	H
1	Unit and Process#	Grocery Outlet Fort Bragg Screening Level Risk from Autos + Trucks -- SR-1. Based on 21,200 annual average Daily Traffic. 3% Trucks. 97% Autos						
2	Operating Hours hr/yr	8,760.00						
3	Receptor Proximity and Proximity Factors	Cancer	Chronic	Acute	Max Score	Receptor proximity is in meters. Prioritization scores are calculated by multiplying the total scores summed below by the proximity factors. Record the Max score for your receptor distance. If the substance list for the unit is longer than the number of rows here or if there are multiple processes use additional worksheets and sum the totals of the Max Scores.		
4		Score	Score	Score				
5	0 < R < 100 1.000	42.137	0.135	0.821	4.21E+01			
6	100 ≤ R < 250 0.250	10.534	0.034	0.205	1.05E+01			
7	250 ≤ R < 500 0.040	1.685	0.005	0.033	1.69E+00			
8	500 ≤ R < 1000 0.011	0.464	0.001	0.009	4.64E-01			
9	1000 ≤ R < 1500 0.003	0.126	0.000	0.002	1.26E-01			
10	1500 ≤ R < 2000 0.002	0.084	0.000	0.002	8.43E-02			
11	2000 < R 0.001	0.042	0.000	0.001	4.21E-02			
12		Enter the unit's CAS# of the substances emitted and their amounts.						
13	Grocery Outlet Fort Bragg Screening Lev							
14	Substance	CAS#	Annual Emissions (lbs/yr)	Maximum Hourly (lbs/hr)	Average Hourly (lbs/hr)	Cancer	Chronic	Acute
15					0.00E+00	0.00E+00	0.00E+00	0.00E+00
16	1,3-Butadiene	106990	6.54E-01	9.55E-04	7.47E-05	8.56E-01	5.60E-03	2.17E-03
17	Benzene	71432	1.05E+01	1.29E-02	1.20E-03	2.34E+00	5.98E-02	7.17E-01
18	Formaldehyde	50000	5.79E+00	3.66E-03	6.61E-04	2.67E-01	1.10E-02	9.98E-02
19	Acetaldehyde	75070	2.42E+00	7.87E-04	2.77E-04	5.04E-02	2.96E-04	2.51E-03
20	Diesel engine exhaust, particulate matter (Diesel PM)	9901	16.72		1.91E-03	3.86E+01	5.73E-02	0.00E+00
21	Toluene	108883	1.28E+01		1.46E-03	0.00E+00	7.31E-04	0.00E+00
22	Xylene	1330207	7.55E+00		8.62E-04	0.00E+00	0.00E+00	0.00E+00
23					0.00E+00	0.00E+00	0.00E+00	0.00E+00
24					0.00E+00	0.00E+00	0.00E+00	0.00E+00
25					0.00E+00	0.00E+00	0.00E+00	0.00E+00
26					0.00E+00	0.00E+00	0.00E+00	0.00E+00
27					0.00E+00	0.00E+00	0.00E+00	0.00E+00
28					0.00E+00	0.00E+00	0.00E+00	0.00E+00
29					0.00E+00	0.00E+00	0.00E+00	0.00E+00
30					0.00E+00	0.00E+00	0.00E+00	0.00E+00
31					0.00E+00	0.00E+00	0.00E+00	0.00E+00
32					0.00E+00	0.00E+00	0.00E+00	0.00E+00
33					0.00E+00	0.00E+00	0.00E+00	0.00E+00
34					0.00E+00	0.00E+00	0.00E+00	0.00E+00
35					Totals	4.21E+01	1.35E-01	8.21E-01

Ray Kapahi

Senior Air Quality Consulting Engineer



Ray.Kapahi@gmail.com

Office: 916.687.8352
Mobile: 916.806.8333

Practice Areas

- Air Quality Permitting
- Odor Investigation and Control
- Health Risk Assessment
- Computational Fluid Dynamics
- Greenhouse Gas Analysis
- Atmospheric Dispersion Modeling

Industries

- Solid Waste
- Energy Production
- Construction and Mining
- Food Industries
- Oil and Gas Production

Education and Training

- BSc. Physics (1972)
- MEng. Chemical Engineering (1975)
- CARB Accredited Green House Gas (GHG) Lead Verifier with Specialization in Process Emissions and Electricity Transactions (2009)

News

- Presentation "Numerical Modeling of Landfill Gas and Odors" 33rd International Conference on Solid Waste Technology and Management. March 11 to 14, 2018, Annapolis, MD.
- Presentation "Integrated Approach to Effective Odor Control at Landfills and Composting Facilities" Wastecon 2016, Indianapolis, IN.

EXPERIENCE

Over 30 years of experience in analyzing air quality and odor impacts, permitting of stationary sources, and preparation of environmental impact documents. Mr. Kapahi works with a broad range of clients and assists them to identify and meet their regulatory obligations.

The scope of his experience includes siting of new landfills, waste to energy plants, obtaining conditional use permits from City and County Governments for new projects or expansion of existing projects. Specific experience and skills include preparation of emission inventories, analysis and measurements of odors, dispersion modeling, oversight of air quality monitoring, analysis of impacts to public health, responding to public comments, and appearing before City and County Planning Boards and Commissions as an expert witness on behalf of clients.

Following approvals for new facilities or expansion of existing facilities, Mr. Kapahi continues to work with clients to ensure on-going compliance.

REPRESENTATIVE PROJECTS

Air Quality Modeling and Permitting

- **Permitting of a Powdered Milk Plant (Turlock, CA)**

Evaluate emissions of various air pollutants from the proposed 30 million gallons per year mild processing/drying facility. Demonstrate compliance with local and state air quality regulations, including regulation of toxic air pollutants.

- **Permit Revisions for an Existing Fruit Dehydration Facility (Yuba City, CA)**

Assisted a major food processor in revising their operating permits to allow for additional steam production. Worked cooperatively with the local air district to ensure timely issuance of the revised permits.

- **Permitting of a Waste to Energy Plant (Fort Irwin, CA)**

Quantify emissions from a proposed 34 tons per day solid waste to energy project. Analyze emissions associated with pyrolysis and subsequent utilization of synthetic gas to generate 1.5 MW of electric power. Prepare the necessary permit applications and supporting documentation.

- **Permitting of a Portable Biomass to Energy Unit (Berkeley, CA)**

Prepare permit application and supporting documents for an Authority to Construct and Permit to Operate an on-demand 25 kw biomass powered electric gensets. The unit includes a gasification and biochar recovery modules. The scope of work included a demonstration of compliance with best available control technology.

Publications and Presentations

Presentation "Use of Advanced Models to Control Fugitive Odors from Composting Sites". US Compost Council Annual Meeting, January 2015, Austin, TX.

"Air Emissions from Landfills and Transfer Stations – Do they Increase Public Health Risks?" Presented at Quad State Environmental Conference, Pigeon Forge TN, Sept 2015.

"Risks of Carbon Credit Invalidation Under California's Cap-and-Trade Program", Presented at the 2014 Air and Waste Management Association Annual Conference. June 24-27, 2014. Long Beach, CA

"Estimate of VOC Emissions from Sludge Drying", Presented at the 1995 SWANA Conference. November 1995, Baltimore, MD.

"Use of Biofilters to Control VOCs", Biocycle, February 1995.

"Impacts of the 1990 Clean Air Act Amendments", San Jose Business Journal, March 24, 1994.

"Modeling Fine Particulates" in Municipal Waste Incineration Risk Assessment, Edited by Curtis Travis, Plenum Press, 1990.

Specialized Training

Accidental Release Modeling Workshop. Trinity Consultants. Dallas, TX November 1-2, 2018.

HARP2 (Risk Assessment Model) Training at California Air Resources Board. Redding, CA April 2016.

Hearing Board Variance Training – California Air Resources Board (1995)

Air Emissions and Odors from Wastewater – University of Texas, Austin (1994)

Professional Affiliations

Air and Waste Management Association
(Board Member)

American Institute of Chemical Engineers
(Member)

Dust and Odor Mitigation

• **Ventilation System for Odor Control (Anaheim, CA)**

Advanced computational fluid mechanics (CFD) models were used to predict the air flow and building pressure to identify the location, size and number of exhaust fans required to remove odors from the transfer station building.

• **Migration of Odors and Aerosol from Leachate Evaporation Pond (Bi-County Landfill, Montgomery County, TN)**

Analyze the movement of odors and aerosols from leachate evaporators. Demonstrate that evaporators were ineffective in reducing volume of leachate, but would release odors and VOCs to nearby homes.

• **Analysis and Control of Fugitive Dust and Odors from a Soil Blending Facility (Stockton, CA)**

Advanced computational fluid mechanics (CFD) models were used to predict the air flow and movement of fugitive dust at a soil blending facility. With this information, the client was able to install appropriate mitigation services to mitigate off-site migration of fugitive dust. View how the movement of dust and odors occur at:

<https://www.youtube.com/watch?v=wXEX6IT-54U>

• **Review of Odor Control Systems for Cannabis Cultivation and Distribution Facilities (Palm Springs, CA)**

EPS evaluated the odor control system for over 15 different odor cultivation and distribution facilities in Palm Springs. The effectiveness of the proposed system was evaluated and recommendations were made to the City of Palm Springs.

Analysis of Public Health Risks

• **Analysis of Public Health Risks Associated with Composting Operations (Napa County, CA)**

Estimate the types and amounts of toxic air contaminants (TAC) released from green waste and food waste composting. An air dispersion model was used with local wind data to determine the concentration of each TAC. The concentration estimates were supplemented with toxicity data to quantify public health risks from exposure to the various toxic pollutants.

• **Analysis of Public Health Risks from Proposed Asphalt Plant (Kern County, California)**

Analyze emissions of any toxic air pollutants from a proposed 250 tons per day asphalt plant. Emissions from aggregate drying, propane combustion and asphalt oil were quantified. Acute and chronic public health risks from exposure to various toxic pollutants were calculated and compared with regulatory thresholds of significance.

ATTACHMENT 2

ATTACHMENT 2

ATTACHMENT 2

ATTACHMENT 2



19 July 2021

Mark R. Wolfe, Esq.
M. R. Wolfe & Associates, P.C.
580 California Street, Suite 1200
San Francisco, CA 94104

**SUBJECT: Best Development Grocery Outlet, City of Fort Bragg
Initial Study and Environmental Checklist
Review of Noise Analysis**

Dear Mr. Wolfe,

As requested, we have reviewed the information and noise impact analyses in the following document:

*Best Development Grocery Outlet
Initial Study and Environmental Checklist ("IS/EC")
City of Fort Bragg, California
December 2020*

Wilson, Ihrig & Associates, Acoustical Consultants, has practiced exclusively in the field of acoustics since 1966. During our 55 years of operation, we have prepared hundreds of noise studies for Environmental Impact Reports and Statements. We have one of the largest technical laboratories in the acoustical consulting industry. We also utilize industry-standard acoustical programs such as Environmental Noise Model (ENM), Traffic Noise Model (TNM), SoundPLAN, and CADNA. In short, we are well qualified to prepare environmental noise studies and review studies prepared by others.

Adverse Effects of Noise¹

Although the health effects of noise are not taken as seriously in the United States as they are in other countries, they are real and, in many parts of the country, pervasive.

Noise-Induced Hearing Loss. If a person is repeatedly exposed to loud noises, he or she may experience noise-induced hearing impairment or loss. In the United States, both the Occupational Health and Safety Administration (OSHA) and the National Institute for Occupational Safety and

¹ More information on these and other adverse effects of noise may be found in *Guidelines for Community Noise*, eds B Berglund, T Lindvall, and D Schwela, World Health Organization, Geneva, Switzerland, 1999.

Health (NIOSH) promote standards and regulations to protect the hearing of people exposed to high levels of industrial noise.

Speech Interference. Another common problem associated with noise is speech interference. In addition to the obvious issues that may arise from misunderstandings, speech interference also leads to problems with concentration fatigue, irritation, decreased working capacity, and automatic stress reactions. For complete speech intelligibility, the sound level of the speech should be 15 to 18 dBA higher than the background noise. Typical indoor speech levels are 45 to 50 dBA at 1 meter, so any noise above 30 dBA begins to interfere with speech intelligibility. The common reaction to higher background noise levels is to raise one's voice. If this is required persistently for long periods of time, stress reactions and irritation will likely result. The problems and irritation that are associated with speech disturbance have become more pronounced during the COVID-19 pandemic because many people find themselves and the people they live with trying to work and learn simultaneously in spaces that were not designed for speech privacy.

Sleep Disturbance. Noise can disturb sleep by making it more difficult to fall asleep, by waking someone after they are asleep, or by altering their sleep stage, e.g., reducing the amount of rapid eye movement (REM) sleep. Noise exposure for people who are sleeping has also been linked to increased blood pressure, increased heart rate, increase in body movements, and other physiological effects. Not surprisingly, people whose sleep is disturbed by noise often experience secondary effects such as increased fatigue, depressed mood, and decreased work performance.

Cardiovascular and Physiological Effects. Human's bodily reactions to noise are rooted in the "fight or flight" response that evolved when many noises signaled imminent danger. These include increased blood pressure, elevated heart rate, and vasoconstriction. Prolonged exposure to acute noises can result in permanent effects such as hypertension and heart disease.

Impaired Cognitive Performance. Studies have established that noise exposure impairs people's abilities to perform complex tasks (tasks that require attention to detail or analytical processes) and it makes reading, paying attention, solving problems, and memorizing more difficult. This is why there are standards for classrooms background noise levels and why office and libraries are designed to provide quiet work environments. While sheltering-in-place during the COVID-19 pandemic, many people are finding working and learning more difficult because their home environment is not as quiet as their office or school was.

Comments on IS/EC Noise Analysis

Issue #1: IS/EC Lacks Any Technical Analysis

The Noise section of the IS/EC presents the appearance of a *bona fide* CEQA analysis by discussing the potentially adverse effects of noise, presenting standards suitable for use as thresholds of significance taken from the City of Fort Bragg Coastal General Plan, citing noise measurement data obtained previously by the City, and describing in some detail the sources and likely adverse effects of construction noise. However, the Noise section is completely devoid of any quantitative analysis

whatsoever. Not a single project-related decibel level is present, and, yet, the IS/EC finds that “[t]he proposed project would have a Less Than Significant Impact with Mitigation Incorporated on Noise.” [IS/EC at p. 52]

Issue #2: Construction Noise Impact Will Be Significant

With respect to construction noise, the IS/EC states,

Short-term construction noise may potentially temporarily exceed acceptable noise thresholds. To limit the potential impact of the noise associated with project construction on the nearby sensitive receptors, hours of construction shall be limited and noise reducing Best Management Practices (BMPs) shall be implemented during the period of project construction, as detailed in Mitigation Measure NOISE-1. [IS/EC at p. 52]

The “acceptable noise thresholds” that this statement refers to are apparently those presented in Table N-5 from the Fort Bragg Coastal Zone Noise Element which is reproduced on page 51 of the IS/EC. This table, reproduced below, includes both hourly equivalent level (“Leq”) and maximum noise level standards.

**TABLE N-5
NOISE LEVEL PERFORMANCE STANDARDS FOR NEW PROJECTS AFFECTED BY OR INCLUDING
NON-TRANSPORTATION NOISE SOURCES**

Noise Level Descriptor	Daytime (7 A.M. to 10 P.M.)	Nighttime (10 P.M. to 7 A.M.)
Hourly Leq dB	55	45
Maximum level, dB	75	65

Note: These noise levels apply to the residential property line nearest the project. Each of the noise levels shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).

As discussed previously, the IS/EC made no attempt to quantify construction noise levels, but given information in the document and using the methodology and reference values in the Federal Highway Administration’s Roadway Construction Noise Model (RCNM), it is simple enough to do. The IS/EC states that construction equipment will include, but will not be limited to, “excavator, cement mixer, dump truck, water truck, and backhoe.” [IS/EC at p. 51] Consider just the three pieces of equipment that are all likely to be involved in demolition of the existing building: excavator, backhoe, and dump truck. Taking the reference noise level and utilization information from the RCNM, assuming point source attenuation (6 dB per doubling of distance), assuming that only one of each type of equipment is on site, and noting that the nearest residential property line is approximately 100 feet from the center of the building to be demolished, the typical maximum and hourly Leq noise levels are calculated to be:^{2,3}

² The *utilization* is the percentage of the time that the equipment typically operates at full power.

³ The Super 8 by Wyndham Hotel is even closer, approximately 80 feet.

TABLE I CALCULATED CONSTRUCTION NOISE LEVELS

<u>Equipment</u>	<u>RCNM Ref Values @ 50 ft</u>			<u>At Residential PL</u>		
	<u>Lmax</u>	<u>Util%</u>	<u>No.</u>	<u>Distance</u>	<u>Typ Lmax</u>	<u>Leq</u>
Excavator	80.7	40%	1	100 ft	74.7	70.7
Dump Truck	76.0	40%	1	100 ft	70.0	66.0
Backhoe	78.0	40%	1	100 ft	72.0	68.0
Total						73.4

The “typical maximum” means the maximum noise level from the center of the building being demolished. The actual maximums for the individual receptors will be when the nearest portion of the building is being demolished. For the Super 8, the closest approach point is within 10 feet, so the maximum will be approximately 95 dBA. For the single-family residence on Franklin, the closest approach is about it will be about 60 feet, so the maximum will be approximately 79 dBA.

From Table I and the preceding discussion, it is clear that the IS/EC statement that “[s]hort-term construction noise may potentially temporarily exceed acceptable noise thresholds” is, in fact, correct. [IS/EC at p. 52] However, the proposed mitigation measures in NOISE-1 would do nothing to reduce these levels, so it is incorrect to conclude that the construction noise levels would be Less Than Significant even if they are utilized. Those measures and why they would not reduce the calculated noise levels are:

- Construction shall be limited to between the hours of 7:00 AM to 7:00 PM, Monday through Saturday, with no construction activities permitted on Sunday, or holidays.

***Comment:** To state the obvious, limiting the time of day does nothing to reduce noise levels. Moreover, the time of day is already taken into consideration in the acceptable noise thresholds established in Table N-5 of the Noise Element.*

- All internal combustion engine-driven equipment shall be equipped with intake and exhaust mufflers that are in good condition and appropriate for the equipment. Air compressors and pneumatic equipment shall be equipped with mufflers and impact tools shall be equipped with shrouds or shields.

***Comment:** Construction equipment was not commonly equipped with mufflers prior to the 1970s, so requiring a muffler was a meaningful noise mitigation measure at that time. However, all equipment operating today commonly fit with mufflers from the factory. In particular, the noise data in the RCNM was primarily obtained during the Central Artery Tunnel Project (“The Big Dig”) in Boston, and all of the equipment was required to be muffled. So, the calculated noise levels already account for mufflers.*

Acoustically-attenuating shields or shrouds may be effective for operations that are small in scale and limited in occurrences. In my own experience with large-scale construction projects, the time and hassle associated with moving and positioning shields and shrouds typically make them infeasible.

- All unnecessary idling of internal combustion engines on-site shall be prohibited.

***Comment:** This is a reasonable best-practice that should be enforced. However, the noise reduction afforded by idling engines is already taken into account by the utilization factor. If the utilization factor is 40%, that means the engine is revving at full power for 40% of the time and effectively idling 60% of the time.*

[Mitigation Measure NOISE-1 from IS/EC at p. 52]

In conclusion, a simple, standard construction noise level calculation substantiates the IS/EC claim that construction noise will exceed acceptable noise thresholds at neighboring, noise-sensitive receptors. Because the measures put forth in NOISE-1, while sensible, will do nothing to reduce the noise levels, construction noise should be identified as a significant impact.

Issue #2: Operational Noise Impact May Be Significant

As with construction noise, operational noise sources are described in the IS/EC, but no formal threshold of significance is established, and the claim that “operational activities would not be anticipated to significantly impact surrounding land uses” [IS/EC at p. 52] is completely unsubstantiated.

The City of Fort Bragg Noise Element indicates that the City takes noise control seriously. In addition to the State-mandated Land Use Compatibility Standards, the Element notes

These standards are not intended to be applied reciprocally. In other words, if an area is currently below the desired noise standard, a project that causes an increase in noise up to the maximum should not necessarily be permitted. [Fort Bragg Coastal General Plan, 2008, at p. 8-7]

By extension, if a project causes the exterior noise exposure at a particular land use to change from one noise standard classification to a worse one, that should be considered a *de facto* significant impact. This will likely be the case for the residences across S Franklin Street.

As Figure 1 shows, the single-family residences on S Franklin Street are between 472 and 545 feet from Highway 1, also known as S Main Street. The latest noise measurements in Fort Bragg were apparently made in 2001 or early 2002.⁴ These measurement data were projected out to the then-future year of 2011. The day-night equivalent noise level (Ldn) contour information in the Noise Element along Highway 1 between Ocean View Drive and Cypress Street is summarized in Figure 2. In Figure 2, the noise levels for given distances in the Noise Element are shown as dots. The lines connecting these data points are colored, and the lines extrapolating the information to greater distances are gray.

⁴ These are reported in the Fort Bragg Coastal General Plan with a date of February 2002.



FIGURE 1 Distances from Highway 1 to Residences on S Franklin Street

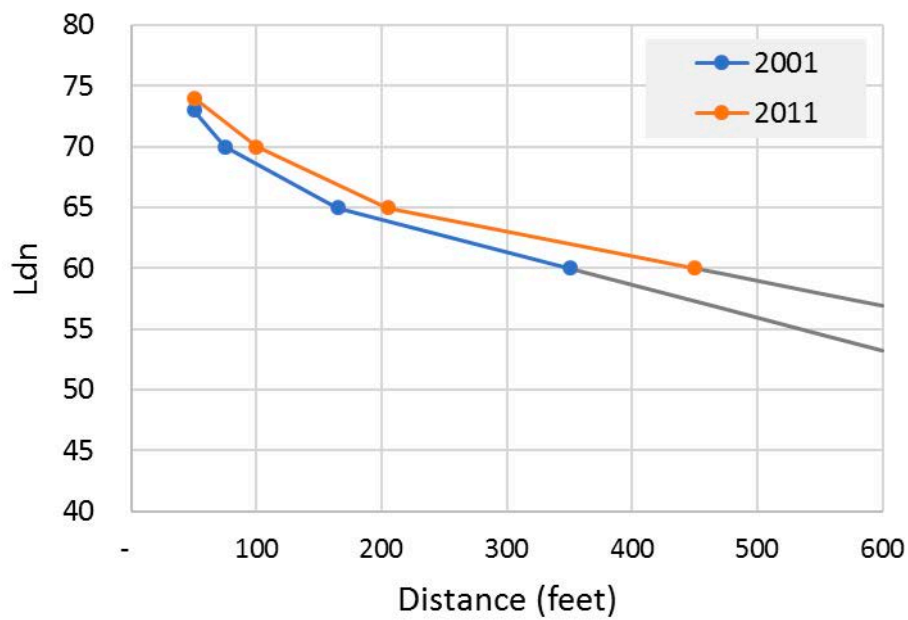


FIGURE 2 Fort Bragg Noise Contour Distances

Using the 2011 contour information the most up-to-date, Figure 2 shows that the noise levels at the residences are between 58 and 60 Ldn. The Noise and Land Use Compatibility Standards in the Noise Element [IS/EC at p. 50; Noise Element, Table N-4] indicate that for residences noise exposure up to 60 Ldn is “Normally Acceptable” whereas noise exposure between 60 Ldn and 75 Ldn is only “Conditionally Acceptable”. New construction in an area that is only “Conditionally Acceptable” requires “a detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.” [Noise Element, Table N-4]

Given that the residences on S Franklin Street appear to be on the cusp of being pushed from a “Normally Acceptable” noise environment to a “Conditionally Acceptable” one, the question is whether the Grocery Outlet project would produce enough noise to make that push, thus resulting in a significant impact.

The primary sources of operational noise from the project are automobile traffic, delivery truck traffic, and rooftop mechanical equipment. The *Traffic Impact Analysis for Grocery Outlet Store, Fort Bragg, California* [“TIA”, KD Anderson & Associates, Inc., October 22, 2019] provides traffic volume information for both the existing condition [TIA, Figure 3] and for the conditions if the project were to be built [TIA, Figure 5]. At its simplest, traffic noise scales by 10 times the change in volume if speed and traffic mix do not change. (In this case, the mix will change because the Grocery Outlet will bring heavy delivery trucks to the street per the truck turning diagram shown in Figure 2 of the *Traffic Impact Analysis*, but the extra noise brought by the trucks is neglected for this analysis.) Using this simple relation and the traffic volume information, one can see that the traffic noise on S Franklin Street will increase on the order of 3 dB (Table II).

TABLE II TRAFFIC NOISE LEVEL INCREASES

	Existing	Ex+Proj	Δ dB	2040 w/o	2040 Proj	Δ dB
Sat Peak Hour Volume	1,928	4,431	3.6	2,225	4,728	3.3
PM Peak Hour Volume	1,936	3,681	2.8	2,550	4,037	2.0

As for the rooftop mechanical equipment, again, no information is provided in the IS/EC. Based on past projects Wilson Ihrig has done for other grocery stores, primarily Safeway, we believe it is reasonable to expect that the project will have the following mechanical equipment:

<u>Unit</u>	<u>No.</u>	<u>Sound Power Level⁵</u>
Air-cooled condenser	1	101 dBA re: 10 ⁻¹² W
AC unit	1	94
Single-Packaged Unit (23,000 cfm)	2	71
Exhaust Fan (600-750 cfm)	4	74

⁵ Note that these are sound power levels which is the standard for characterizing mechanical equipment sound levels. A sound power level is a different unit than a sound pressure level. Suffice it to say that the reader should not compare the sound power levels in this table to any other decibel level in this letter which are all sound pressure levels.

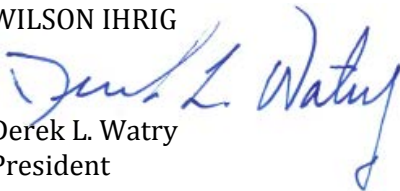
The nearest residences to the proposed store are approximately 100 feet from the center of the new building. At that distance, given the expected number of units and the sound power levels, the noise (sound pressure) level at the residences will be approximately 67 dBA.

Whether or not the combined traffic and mechanical equipment noise from the Grocery Outlet would cause the exterior noise exposure to change from “Normally Acceptable” to “Conditionally Acceptable” cannot be conclusively determined with knowing more about the number of delivery trucks and at what time(s) of day or night they would make deliveries, the expected duty cycles of the rooftop mechanical equipment, etc., but the fact that the existing noise exposure seems to already be at the upper limit of “Normally Acceptable”, that the traffic noise levels will increase on the order of 3 dB, and that the rooftop mechanical equipment would likely produce noise levels that would drive the exterior noise exposure upward, it is reasonably foreseeable that it will, and that a significant noise impact could result.

* * * * *

Very truly yours,

WILSON IHRIG



Derek L. Watry
President



DEREK L. WATRY

Principal

Since joining Wilson Ihrig in 1992, Derek has gained experienced in many areas of practice including environmental, construction, forensic, architectural, and industrial. For all of these, he has conducted extensive field measurements, established acceptability criteria, and calculated future noise and vibration levels. In the many of these areas, he has prepared CEQA and NEPA noise technical studies and EIR/EIS sections. Derek has a thorough understanding of the technical, public relations, and political aspects of environmental noise and vibration compliance work. He has helped resolve complex community noise issues, and he has also served as an expert witness in numerous legal matters.

Education

- M.S. Mechanical Engineering, University of California, Berkeley
- B.S. Mechanical Engineering, University of California, San Diego
- M.B.A. Saint Mary's College of California

Project Experience

12th Street Reconstruction, Oakland, CA

Responsible for construction noise control plan from pile driving after City received complaints from nearby neighbors. Attendance required at community meetings.

525 Golden Gate Avenue Demolition, San Francisco, CA

Noise and vibration monitoring and consultation during demolition of a multi-story office building next to Federal, State, and Municipal Court buildings for the SFDPW.

911 Emergency Communications Center, San Francisco, CA

Technical assistance on issues relating to the demolition and construction work including vibration monitoring, developing specification and reviewing/recommending appropriate methods and equipment for demolition of Old Emergency Center for the SFDPW.

Central Contra Costa Sanitary District, Grayson Creek Sewer, Pleasant Hill, CA

Evaluation of vibration levels due to construction of new sewer line in hard soil.

City of Atascadero, Review of Walmart EIR Noise Analysis, Atascadero, CA

Review and Critique of EIR Noise Analysis for the Del Rio Road Commercial Area Specific Plan.

City of Fremont, Ongoing Environmental Services On-Call Contract, Fremont, CA

Work tasks primarily focus on noise insulation and vibration control design compliance for new residential projects and peer review other consultant's projects.

City of Fremont, Patterson Ranch EIR, Fremont, CA

Conducted noise and vibration portion of the EIR.

City of King City, Silva Ranch Annexation EIR, King City, CA

Conducted the noise portion of the EIR and assessed the suitability of the project areas for the intended development. Work included a reconnaissance of existing noise sources and receptors in and around the project areas, and long-term noise measurements at key locations.

Conoco Phillips Community Study and Expert Witness, Rodeo, CA

Investigated low frequency noise from exhaust stacks and provided expert witness services representing Conoco Phillips. Evaluated effectiveness of noise controls implemented by the refinery.

Golden Gate Park Concourse Underground Garage, San Francisco, CA

Noise and vibration testing during underground garage construction to monitor for residences and an old sandstone statue during pile driving for the City of San Francisco.

Laguna Honda Hospital, Clarendon Hall Demolition, San Francisco, CA

Project manager for performed vibration monitoring during demolition of an older wing of the Laguna Honda Hospital.

Loch Lomond Marina EIR, San Rafael, CA

Examined traffic noise impacts on existing residences for the City of San Rafael. Provided the project with acoustical analyses and reports to satisfy the requirements of Title 24.

Mare Island Dredge and Material Disposal, Vallejo, CA

EIR/EIS analysis of noise from planned dredged material off-loading operations for the City of Vallejo.

Napa Creek Vibration Monitoring Review, CA

Initially brought in to peer review construction vibration services provided by another firm, but eventually was tapped for its expertise to develop a vibration monitoring plan for construction activities near historic buildings and long-term construction vibration monitoring.

San Francisco DPW, Environmental Services On-Call, CA

Noise and vibration monitoring for such tasks as: Northshore Main Improvement project, and design noise mitigation for SOMA West Skate Park.

San Francisco PUC, Islais Creek Clean Water Program, San Francisco, CA

Community noise and vibration monitoring during construction, including several stages of pile driving. Coordination of noise and ground vibration measurements during pile driving and other construction activity to determine compliance with noise ordinance. Coordination with Department of Public Works to provide a vibration seminar for inspectors and interaction with Construction Management team and nearby businesses to resolve noise and vibration issues.

San Francisco PUC, Richmond Transport Tunnel Clean Water Program, San Francisco, CA

Environmental compliance monitoring of vibration during soft tunnel mining and boring, cut-and-cover trenching for sewer lines, hard rock tunnel blasting and site remediation. Work involved long-term monitoring of general construction activity, special investigations of groundborne vibration from pumps and bus generated ground vibration, and interaction with the public (homeowners).

Santa Clara VTA, Capitol Expressway Light Rail (CELR) Bus Rapid Transit (BRT) Update EIS, CA
Reviewed previous BRT analysis and provide memo to support EIS.

Shell Oil Refinery, Martinez, CA

Identified source of community noise complaints from tonal noise due to refinery equipment and operations. Developed noise control recommendations. Conducted round-the-clock noise measurements at nearby residence and near to the property line of the refinery and correlated results. Conducted an exhaustive noise survey of the noisier pieces of equipment throughout the refinery to identify and characterize the dominant noise sources that were located anywhere from a quarter to three-quarters of a mile away. Provided a list of actions to mitigate noise from the noisiest pieces of refinery equipment. Assisted the refinery in the selection of long-term noise monitoring equipment to be situated on the refinery grounds so that a record of the current noise environment will be documented, and future noise complaints can be addressed more efficiently.

Tyco Electronics Corporation, Annual Noise Compliance Study, Menlo Park, CA

Conducted annual noise compliance monitoring. Provided letter critiquing the regulatory requirements and recommending improvements.

University of California, San Francisco Mission Bay Campus Vibration Study, CA

Conducted measurements and analysis of ground vibration across site due to heavy traffic on Third Street. Analysis included assessment of pavement surface condition and propensity of local soil structure.