

REPORT TO SHASTA COUNTY RTPA

SUBJECT	MEETING DATE	ITEM NUMBER
Consider Requesting that Caltrans Prepare Soundwall Projects for STIP Funding on Interstate 5	04/23/02	5

RECOMMENDATION

It is recommended the RTPA request that Caltrans develop soundwall projects for future RIP funding consideration.

SUMMARY

Recently the RTPA and Caltrans received several complaints about vehicle traffic noise originating from Interstate 5. Complaints have been received from an area generally running north from Bonnyview to Twin View Blvd. The first step to addressing this issue is to direct Caltrans to develop soundwall projects for funding consideration.

DISCUSSION

Generally, soundwalls are a form of a noise barrier that are used in areas that exceed certain noise thresholds as a way to reduce the impacts of this noise in the areas surrounding the freeway. They can be solid obstructions built between the highway and the homes along the highway. Effective noise barriers can reduce noise levels by ten to fifteen decibels, cutting the loudness of traffic noise in half. Barriers can be formed from earth mounds along the road (usually called earth berms) or from high vertical walls. Soundwalls can be built out of wood, stucco, concrete, masonry, metal, and other materials.

Under SB 45 guidelines RTPA's may request that Caltrans develop projects for Regional Improvement Program (RIP) funding consideration. Soundwalls are considered an eligible project for this funding source. To ensure that soundwall projects receive due consideration from the Agency it is recommended that the RTPA make this request to Caltrans.

SOUNDWALL FUNDING SCENARIOS

Historically, soundwalls have been constructed by Caltrans under six basic programs for residential areas:

1. As part of a new freeway project;
2. As part of a freeway widening project;
3. Under the School Noise Abatement Program;
4. Under the Community Noise Abatement Program.
5. Under the State Highway Operation and Protection Program (SHOPP); and
6. As part of the State Transportation Improvement Program (STIP)

In regards to items 1 and 2 above, they are not part of this discussion as the comments received do not pertain to construction of a new freeway or freeway widening project.

The School Noise Abatement Program is required based upon Streets and Highway Code Requirements Section 216. It requires Caltrans to mitigate noise that intrudes into specified areas within public and private, elementary or secondary schools when that noise is generated by freeway traffic or by the construction of the freeway. The areas eligible for protection from the noise are those which are used as classrooms, libraries, multipurpose rooms and spaces used for pupil personnel services. When the levels within these areas exceed 52 dBA, Leq., Caltrans is required to reduce the excessive noise. The Code establishes qualifying criteria that include the time of school construction and current use of the school. According to Caltrans Project Development Procedures Manual Chapter 30, Section 4; "Projects under these criteria should be proposed as SHOPP projects, as there is no longer a program specifically for school noise abatement. Noise abatement options include construction of a noise barrier, acoustical treatment of the school structure, or a combination of both."

The Community Noise Abatement Program funds most of the construction of soundwalls using STIP funding sources. This program is designed, for the most part for the construction of soundwalls along existing freeways in residential areas where three criteria are met. The three criteria are:

1. The noise level must exceed a threshold of 67dBA (Leq). In an area frequently used by people.
2. Noise Mitigation must be designed to reduce the noise level at least 5 decibels.
3. Projects must be cost-effective. Projects costing no more than \$35,000 per residential unit protected by the barrier are considered cost-effective.

In regards to 5 and 6 above, SHOPP and STIP are the funding mechanisms used to program the improvements to correct the problem.

CURRENT CONDITIONS

Recently, complaints from the public were received regarding noise levels specific to areas adjacent to I-5. I-5 is considered Caltrans jurisdiction. The comments received from the public, for purposes of this report, are categorized as the South and North areas. These study areas can be best described as South area, Churn Creek/Bonnyview to Cypress, and the North area, Highway 299 interchange north to Twin View Blvd. The southern comments also expressed concern about noise on behalf of Parson School.

SOUTH AREA CONDITIONS

Based upon the complaints reported, Caltrans prepared a special study on six segments of I-5 in January 2002. The segments and test results in the South study included;

1. Segment 1, North Bound I-5 from Churn Creek Road overcrossing (OC) to Loma Vista. The average noise level in segment 1 is Leq 75 dBA
2. Segment 2, South Bound from Hartnell overcrossing to Loma Vista OC. The average noise level for this segment is Leq 72 dBA
3. Segment 3, North bound I-5 from Loma Vista OC to Hartnell OC. The average noise level for this segment is Leq 70 dBA
4. Segment 4, South Bound I-5 from Cypress Undercrossing (UC) to Hartnell OC. The average noise level for this segment is Leq 73 dBA
5. Segment 5, North Bound I-5 from Hartnell OC to Cypress UC. The average noise level for this segment is Leq 70 dBA
6. Segment 6, South Bound I-5 from Loma Vista OC to Churn Creek OC, per the report there are no sensitive receptors adjacent to the freeway in Segment 6.

The test results indicate the level of noise is greater than the 67 dBA standard. Soundwalls in these segments would be eligible for funding. Assuming adoption of the Staff recommendation, it is expected that Caltrans will nominate eligible soundwall projects in this area for RIP funding consideration

Additionally, based upon a request from the Prettymans' (letter attached) in the south study area, Caltrans performed a special study at their location to derive measurements of the "adjusted worst-hour noise level." The study results indicated readings from a low of 44 dBA to a high of 58 dBA at their home which is approximately 1,000 feet from the freeway in segment one.

NORTH AREA CONDITIONS

At this time the most recent data related to noise in this area is a study conducted in 1993. In order to better define the noise in the North study area, the RTPA could request that Caltrans conduct a study to collect noise measurements between the interchange of Highway 299 and Constitution Way. The noise study may not be needed as we can infer that the noise levels in the adjacent segments speak for the more northern segments and the 1993 Caltrans study indicates a dBA level of 70 for that segment. Funding for the region is scarce, so the use of funds for the sake of measurement of a known problem may not be the best use of resources.

Given the results of the 1993 noise study it is clear that this area also qualifies for soundwall funding. Assuming adoption of the Staff recommendation, it is expected that Caltrans will nominate eligible soundwall projects in this area for STIP funding consideration

A concerned citizen in this area, Vivian Brant has expressed some safety concerns in this area unrelated to noise. She also presented to the Agency at the February a petition signed by about 100 neighbors requesting attention to their perceived safety problems. The concern is that there is an unsafe condition from the northbound on ramp at SR 299 to the northbound off-ramp on I-5 at Twin View Blvd. Recent correspondence from Caltrans to Mrs. Brant indicated a review of the accident history along the segment was undertaken. Based upon that analysis the segment of freeway studied is not a candidate for placement of guardrail or other means of a safety barrier at this time.

ALTERNATIVES

An identified alternative to the Staff recommendation would be to not request that Caltrans develop projects for future RIP funding consideration. This is not recommended because these areas meet the standards for noise mitigation.

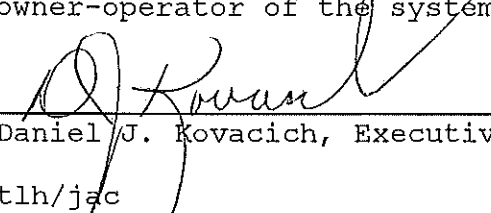
OTHER AGENCY INVOLVEMENT

This matter was discussed with Caltrans personnel, in particular the RTPA should recognize Mr. Mark Miller, Chief of Advanced Planning for sharing his knowledge of the situation and leading the special studies that defined the problem and ensured the accuracy of the study results. This matter was also discussed at the April 9, 2002 TAC meeting with all agency members.

Caltrans has indicated that these projects can be developed easily for future funding consideration.

FINANCING

With the exception of soundwalls near schools all other soundwall projects are generally funded from the RIP program. If the Staff recommendation is adopted then it is expected that Caltrans will nominate soundwall in these areas for funding consideration the next time the RTPA issues a call for projects. Funding for soundwall near schools may originate from the SHOPP program. Since a complaint specific to the School Noise Abatement Program has not been received, it is uncertain if these would qualify for funding at this time. In any event projects of this type are the sole responsibility of Caltrans as the owner-operator of the system.



Daniel J. Kovacich, Executive Officer
tlh/jac

Attachments: Letter from Mr. and Mrs. Prettyman dated February 20, 2002 to Dan Kovacich
Letter from Dan Kovacich dated March 5, 2002 to the Prettymans
Letter from Brian Crane dated March 21, 2002 to the Prettymans
Letter from Vivan Brant dated Feb. 22, 2002 to Mark Miller
Letter from Caltrans dated April 2, 2002 to Vivan Brant
Letter from Mark Miller dated January 31, 2002 to the Prettymans

Rayburn and Diane Prettyman

Redding, CA 96002

February 20, 2002

Mr. Daniel J. Kovacich
Executive Officer
Shasta County Regional Transportation Planning Agency
1855 Placer Street
Redding, CA 96001

Dear Mr. Kovacich:

This letter is in regard to obtaining funding from the RTPA for noise abatement along Interstate 5 (I-5) between Churn Creek/Bonneyview Overcrossing and Cypress Street Undercrossing.

Noise Problem

The California Department of Transportation (Caltrans) issued a report in January 2002 entitled *Soundwall Study Churn Creek Overcrossing to Cypress Avenue Undercrossing*. A copy of this report was sent to you on January 31, 2002 under a cover letter written by Mark Miller, Caltrans Chief of Advance Planning. This report documents noise levels along Interstate 5 between Churn Creek/Bonneyview Overcrossing and Cypress Street Undercrossing that greatly exceed the established noise threshold criterion.

The report also includes as an attachment a copy of the results of a similar noise study that was performed in October 1993. The 1993 study also documented noise levels along Interstate 5 between Churn Creek/Bonneyview Overcrossing and Cypress Street Undercrossing that exceeded noise threshold criteria.

Our home is located approximately 1,000 feet from Interstate 5 along the stretch of I-5 addressed in the Caltrans noise studies. We have lived here since 1971 and have noticed the noise level increasing over the years as the traffic volume increased along I-5. However, over the last two years, the noise level at our home seems to have increased dramatically. There are a few days when we can barely notice the noise from I-5, and many other days when it seems that the trucks and cars are passing through our yard. The high noise levels have made it near impossible to sleep or to have conversations in our backyard without almost shouting.

As a result of our discussions with Mark Miller, Caltrans conducted measurements in January 2002 of the noise levels in our backyard. These noise measurements were below the threshold level of 67 decibels; however, the noise during the measurement period was what we considered to be an average noise level condition, not the extremely high noise level that we routinely experience.

In addition to high noise levels at individual residences, noise from I-5 is also causing problems for schools. There are four schools located immediately adjacent to I-5 between Churn Creek/Bonneyview Overcrossing and Cypress Street Undercrossing. These schools are Parsons, Rother, the Neighborhood Church school and the Grace Baptist schools. Teachers at Parsons have reported problems conducting outside PE classes due to the high noise levels from I-5. Hopefully, the school administrations will also contact you regarding their noise related problems.

Reported Health Effects Caused by Noise

The World Health Organization issued a report in 1995 entitled *Community Noise* that documents the health effects caused by noise (including traffic noise). This document is available on the Internet at www.nonoise.org/library/whonoise.htm. As stated in the abstract in the report, "The document critically reviews the adverse effects of community noise, including interference with communication, noise-induced hearing loss, annoyance responses, and effects on sleep, the cardiovascular and psychophysiological systems, performance, productivity, and social behavior". The recommended noise levels to reduce health problems caused by noise are significantly below the noise levels measured along I-5 by CALTRANS. Therefore, actions taken to reduce noise levels along I-5 may save the lives of those having health problems caused by the high noise levels.

Possible Abatement Actions for I-5 Noise

As stated in Mark Miller's letter of January 31, 2002, possible noise abatement measures for to I-5 between Churn Creek/Bonneyview Overcrossing and Cypress Street Undercrossing are:

- Installation of soundwalls.
- Installation of Open Grade Asphalt Concrete (OGAC).
- Building earth-berms on the side of I-5.

The most cost-effective solution may be a combination of these measures. However, of the three identified solutions, only OGAC reduces the noise level at it's source and benefits not only those schools and residences immediately adjacent to I-5, but also those residences like ours that are located farther away from I-5. Caltrans told us that installing a soundwall along I-5 might actually cause the noise level at our residence to increase.

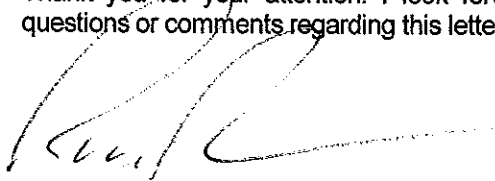
Caltrans also informed us that the primary reason they have used OGAC in certain sections of highways was for safety purposes to reduce "over-spray" from trucks. Noise reduction was found to be a side-benefit. Therefore, with the high truck traffic along I-5, installation of OGAC would enhance safety and reduce noise.

RTPA Funding of Noise Abatement Resolutions

According to the January 31, 2002 letter from Mark Miller of Caltrans and in meetings with Mark Miller, the Shasta County Regional Transportation Planning Agency (RTPA) is responsible for selecting projects to be funded under the Regional Improvement Program (RIP). Therefore we are requesting the RTPA to make I-5 noise abatement between Churn Creek/Bonneyview Overcrossing and Cypress Street Undercrossing a top-priority item and provide funding to resolve this documented noise problem.

Caltrans indicated that funding for installing OGAC might come from a combination of RTPA and Caltrans funds. I believe that RTPA should explore this option with Caltrans.

Thank you for your attention. I look forward to your response to our concerns. If you have any questions or comments regarding this letter, I can be reached at 222-1341.



Sincerely,
Rayburn and Diane Prettyman

**SHASTA COUNTY
REGIONAL TRANSPORTATION PLANNING AGENCY**

DANIEL J. KOVACICH
EXECUTIVE OFFICER

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(530) 225-5661 • FAX (530) 225-5667
E-MAIL shasroad@snowcrest.net
HOME PAGE www.scrtpa.org

March 5, 2002

RPP 020103

Rayburn and Diane Prettyman

Redding, CA 96001

Subject: Soundwalls

Dear Mr. and Mrs. Prettyman:

I read your letter of February 20, 2002 regarding obtaining funding from the RTPA for noise abatement along Interstate 5 (I-5), between Churn Creek/Bonneyview Overcrossing and Cypress Street Undercrossing. I also appreciated your comments at our Agency meeting on February 26, 2002 during the public comment period.

I have reviewed the California Department of Transportation (Caltrans) report entitled, *Soundwall Study Churn Creek Overcrossing to Cypress Avenue Undercrossing* dated January 2002. In addition, I have read the memo to you from Mr. Mark Miller, Caltrans Chief of Advance Planning. My staff has also met with Mr. Miller. My staff reviewed your document reference abstract entitled *Community Noise*. Mr. Miller also shared a recent log of Highway Noise Complaints.

Mr. Miller's letter included a noise measurement graphical display at your location, which indicated DB levels ranging from a low of approximately 41 dBs and a peak of approximately 57 dBs. Your letter quotes from the abstract in the above referenced document. The abstract goes on to say, "...that in order to protect the majority of the people from being seriously annoyed during the daytime...outdoor living areas should not exceed 55dBs."

Your comments that the measurement accounted for an average noise level, and not the extremely high noise level that is routinely experienced at your location, are understood. Your recognition that the level of 67 decibels is the standard threshold level is correct.

I generally agree with Mr. Miller's letter, that the Shasta County Regional Transportation Planning Agency (RTPA) is responsible for selecting projects to be funded under the Regional Improvement Program (RIP). We recently

Prettyman
Soundwalls
March 5, 2002
Page 2

updated our Regional Transportation Plan (RTP); in consensus with all stakeholders in our working group, a process to document priority for funding was jointly developed. Key metrics in this methodology include Travel Time and Safety, Congestion Relief, Community Benefits, Regional Significance and Air Quality (See on our website <http://www.scrtpa.org> - 2001RTP/Appendix E). All projects submitted by the stakeholders, for example Caltrans, were compared and ranked via this methodology for a twenty year planning horizon to prioritize STIP funding available in that period. The next mandated update will be completed in less than three years and is internally updated annually. A project for noise abatement in your area would be expected to compete with all other unfunded needs in the region, as we complete the next update cycle. We intend to work with the appropriate agency to monitor policies and procedures regarding noise abatement in our region and determine if other sources of funding could be used. I agreed to inform our Agency members with a staff report regarding noise abatement at the next Agency meeting and intend to provide you a copy of the report.

The RTP goal is to "Provide a safe, balanced, coordinated and cost-effective transportation system, that conserves energy and preserves air quality, serves the needs of the local metropolitan area and region, and is consistent with and helps implement local agencies' general plans."

Thank you for bringing this matter to my attention.

Very truly yours,



Daniel J. Koyacich, Executive Officer
Shasta County Regional Transportation
Planning Agency (MPO)

DJK/TCH/jac

cc: Mark Miller

DEPARTMENT OF TRANSPORTATION

OFFICE OF THE DISTRICT DIRECTOR

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March 21, 2002

Ms. Diane Prettyman

Redding, CA 96002

Dear Ms. Prettyman:

Thank you for you March 11, 2002, correspondence regarding previous noise studies and noise abatement on Interstate 5 between Churn Creek Road and Cypress Avenue in Redding. You suggested that since the problem has been identified, no further studies are needed, and resources should now be directed towards a solution. You also inquired if open graded pavement would lower the noise level.

We agree no further sound studies are necessary at this location and the focus should be on solutions. As discussed in previous correspondence, the challenges will be 1) to identify a source of funding for a sound abatement project and 2) the ability of a sound abatement project to compete with other needed transportation improvements in the area. The Shasta County RTPA is the lead agency responsible for prioritizing needs and funding related to a sound abatement project.

Regarding the use of open graded pavement, there are indications that such a pavement will reduce noise levels by three to six decibels. However, its actual noise reduction benefits under local conditions and long-term noise reduction benefits are questionable and are still being evaluated. Likewise, the challenge with open graded pavement will be identifying available funding verses other project priorities. Caltrans is the lead agency responsible for prioritizing needs and funding for pavement overlay projects.

Caltrans, in partnership with the Shasta County RTPA, will continue to investigate the feasibility and funding options for open graded pavement as well as other potential noise abatement projects.

Thank you for your comments.

BRIAN CRANE

Acting District Director

RECEIVED**MAR 27 2002**

cc: Dan Kovacich, Shasta County RTPA ✓

DEPT. OF PUBLIC WORKS

Country Oaks Subdivision

Mrs. Vivian Brant

Redding, CA 96003

February 22, 2002

Department of Transportation
Office of Advance Planning
Mark Miller, Chief of Advance Planning
1557 Riverside Drive
Redding, CA 96001

Dear Mr. Miller:

This letter is in regards to our telephone conversations regarding a potentially hazardous area of Interstate 5 within the city limits of Redding, CA. The area in question is located on northbound I-5, from the northbound on-ramp from westbound 299, to the northbound off-ramp on I-5 @ Twin View Blvd.

Along that stretch of freeway on I-5, there is an approximately 45 to 50 foot embankment. At the bottom of this embankment there is a City Water Department easement for a sewer main and storm drain. The side of the embankment is very steep, with considerable vegetation. The embankment then rises to a portion of Country Oaks Subdivision, which is at about the same level as the freeway, to the end of cul-de-sacs at Terra Linda Way and Trish Court. In the event of a traffic accident along this stretch of freeway, which caused the vehicle(s) or semi-truck(s) to leave the roadbed and roll down the embankment, there are homes that would be imperiled by fire. Additionally, there are several homes at the south end of this stretch of freeway that are below the freeway, at Jan Court, that could conceivably suffer direct damage. (Photographs enclosed). Any vehicle(s) or semi-truck(s) leaving the roadbed in that area could land on or very near one of these residences. There is also the danger of a chemical or hazardous materials spill that could affect all these homes, and also the sewer main and storm drain at the bottom of the embankment.

An additional problem is that there is accessibility from the freeway into Country Oaks Subdivision by persons on foot from the freeway roadbed. There has already been an intensive search by the California Highway Patrol, using officers and the helicopter, for a suspect who tried to escape arrest by going down that embankment,

Mr. Mark Miller
February 22, 2002
Page Two

which gave the suspect access to this subdivision. We understand that by law there should be a fence at the bottom so that no one would have access to residential areas from the roadbed.

We, the enclosed undersigned residents of Country Oaks Subdivision, your citizens and constituents, are asking for your help. We would feel much more protected if there were some type of safety barrier installed along the east side of the freeway, in the area mentioned, strong enough to prevent any vehicle, including the semi-trucks that travel this freeway continually, from leaving the roadbed.

We would appreciate any assistance you can give us for our well-being and the protection of our homes and families. We have already witnessed three motor vehicle crashes within the sight of our homes. Thus far, none of the vehicles involved have gone down the embankment. We would appreciate protection now, before tragedy strikes, and before any of us become statistics. We feel it is just a matter of time.

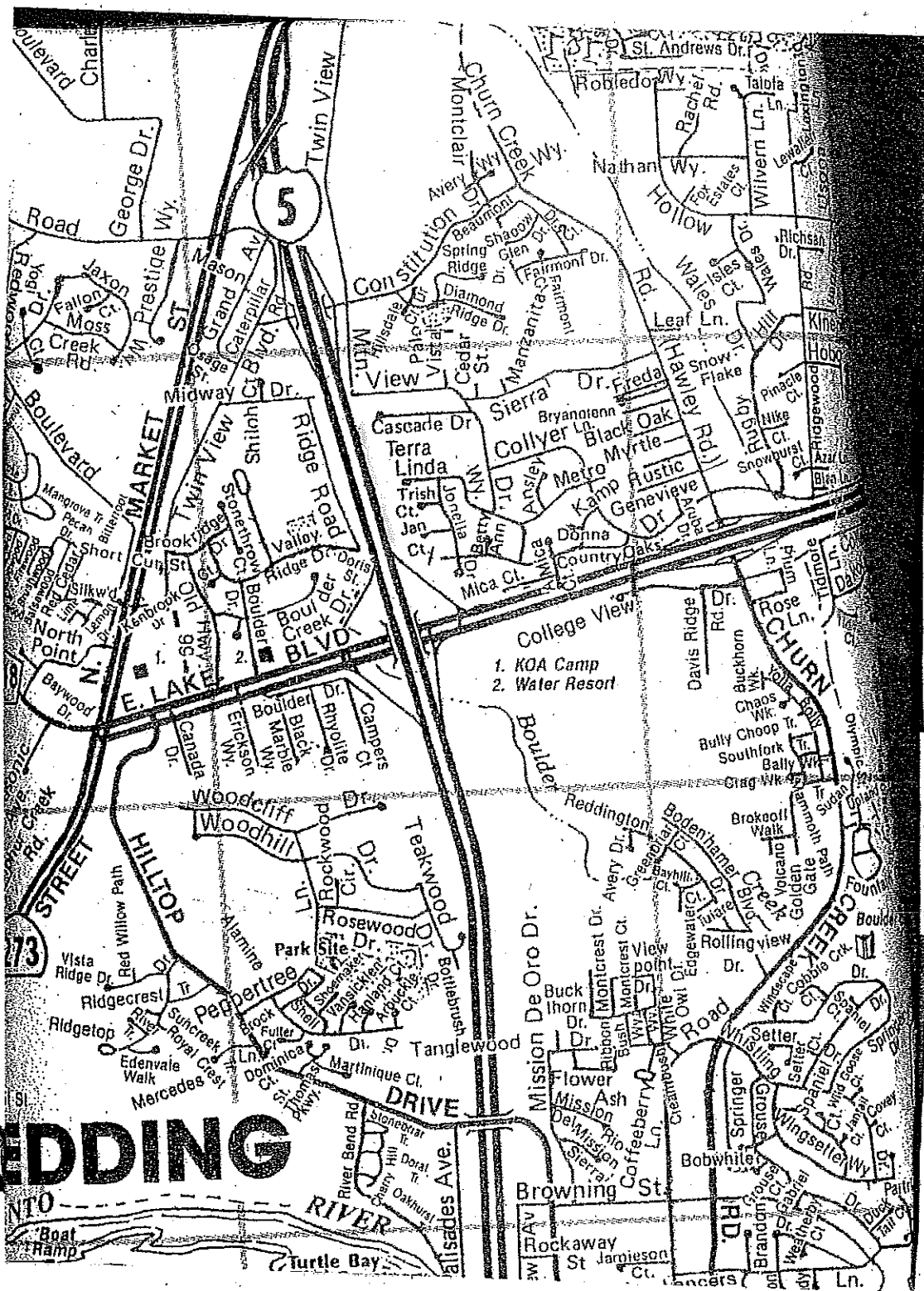
Sincerely,

Vivian Brant and the residents signatures

Vivian Brant and all the enclosed signatures from residents within Country Oaks Subdivision.

Enclosures

cc: ✓ Mr. Daniel Kovacich, Executive Officer of the Shasta RTPA,
1855 Placer Street, Redding, CA 96001
Assemblyman Richard Dickerson
State Capital Room 516C
Sacramento, CA 95814
Mayor Kight, City of Redding
City of Redding Clerks Office
777 Cypress Avenue
Redding, CA 96001



THIS AREA
MAP WITH
YELLOW
HIGHT LIGHT
OF I-5
ALONG
COUNTRY OAKS
SUBDIVISION

DEPARTMENT OF TRANSPORTATION**District 2**

1657 RIVERSIDE DRIVE
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April 2, 2002

02-SHA-5
PM R17.569/R17.926

Mrs. Vivian Brant

Redding, CA 96003

Dear Mrs. Brant:

Thank you for your letter dated February 22, 2002 regarding the embankment and access issues near the Country Oaks Subdivision. We have reviewed the accident history along this segment. We also looked at the existing fence, and have reviewed our criteria for placing guardrail at the top of the embankment along a freeway. This information is summarized below.

A review of the last five years of accident data, in the vicinity of your concern, indicates seven reported northbound accidents. These accidents occurred between the onramp from westbound Highway 299 and the Twinview offramp. Five of the accidents happened in 1997, one in 1999 and one in 2000. Drivers under the influence caused three accidents, and one was caused by a driver that fell asleep and drifted into the median. A common accident scenario is a vehicle speeding on the onramp from westbound 299 and losing control either on the ramp or while merging onto Interstate 5 (I-5). One of the seven accidents involved a DUI driver who sideswiped a truck/trailer. The other six accidents involved passenger vehicles. As you noted, none of the accidents involved vehicles that went down the embankment. The actual total accident rate is lower than the statewide average for a similar type of freeway.

There is an existing fence at the bottom of the embankment. The fence is constructed to California Department of Transportation (Department) standards for freeway fencing. It is not tall enough to prevent someone from climbing over it into your neighborhood.

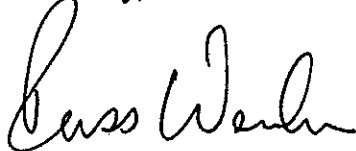
The freeway and fencing were constructed before the Country Oaks Subdivision was even on the drawing boards. Unfortunately, the developer of the subdivision didn't see the need to upgrade the freeway fencing to something along the line of a six-foot tall chain link fence prior to creating a residential neighborhood. We do not plan on constructing a different type of fencing at this location at Department expense. If the existing residents would like to pool their funds, the Department can issue an encroachment permit to upgrade the fence at its current location. If you are interested in pursuing this option, please contact our Encroachment Permits office at 225-3314.

Vivian Brandt
April 2, 2002
Page 2

We understand your concern regarding the proximity of the steep embankment to the houses at the end of Jan Court. As noted, those homes were constructed and purchased after the freeway and its embankment was constructed. The Department generally installs guardrail at existing embankment locations that experience a high number of run-off-road accidents. The guardrail is intended to reduce injuries to occupants of those vehicles that run off the road. Straight sections of roadway are generally not considered to have a high potential for run-off-road accidents. This is substantiated by the accident data at this location. Also, guardrail is not designed to completely prevent truck/trailer rigs from going over it, or through it, and therefore would only partially alleviate your concern. Based on this analysis, this segment of freeway is not a candidate for placement of guardrail at this time.

Feel free to contact me at (530) 225-3545 if you have any further questions or concerns.

Sincerely,

A handwritten signature in black ink, appearing to read "Russ Wenhams", written in a cursive style.

RUSS WENHAM
Deputy District Director, Maintenance & Operations

c: Assemblyman Dick Dickerson
Daniel Kovacich, Shasta County RTPA
Pat Kight, Mayor, City of Redding

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January 31, 2002

Ms. Dianne Prettyman

Redding, CA 96002

Dear Ms. Prettyman:

Noise Abatement

This letter is in regard to our telephone conversations regarding the subject matter. A recently completed Caltrans sound study along Interstate (I) 5 near your neighborhood has confirmed that the noise levels are high. The study divided the area from the Churn Creek Road (Bonnyview) Overcrossing (OC), Post Mile R12.15 (KP 19.55), to the Cypress Undercrossing (UC), PM 14.44 (KP 23.24), into six segments:

- Segment 1 - Northbound I-5 from Churn Creek (Bonnyview) Road OC to Loma Vista OC.
- Segment 2 - Southbound I-5 from Churn Creek (Bonnyview) Road OC to Loma Vista OC.
- Segment 3 - Northbound I-5 from Loma Vista OC to Hartnell OC.
- Segment 4 - Southbound I-5 from Loma Vista OC to Hartnell OC.
- Segment 5 - Northbound I-5 from Hartnell OC to Cypress UC.
- Segment 6 - Southbound I-5 from Hartnell OC to Cypress UC.

Noise levels were measured along I-5 on four occasions: November 11, 2000, February 27 and 28, 2001 and March 1, 2001, at 20 different locations.

Based on the sound measurements, the study (see attachment) calculated and tabulated an "adjusted worst-hour noise level" (see the table on page 5 of 9 in the study) based on the shorter duration measurements. The study then calculated the maximum amount of money that would be spent on a soundwall for each segment based on Federal criteria. Measurement locations and readings, including the readings from a 1993 study, are shown on the last attachments in the study. A graph representing the "adjusted worst-hour noise level" derived from the measurement at your residence is also attached

Funding - The major obstacle for a noise abatement project is funding. Currently, the standard funding mechanism for soundwalls is the Regional Improvement Program (RIP). In Shasta County (County), the Shasta Regional Transportation Planning Agency (RTPA) administers the RIP. Under the RIP process, the City of Redding and other local governments in the region nominate candidate transportation projects to the County RTPA. The County RTPA then selects the projects to be funded under the RIP.

The RTPA's RIP has already assigned anticipated funds for the next ten years to specific projects. In order for a new project to be funded within the next ten years through the RIP, either additional funds would need to become available and/or one of the existing projects would need to cost less than planned and/or the new project would need to displace an existing project. It has been my experience that few projects cost less as they develop. Unexpected cost-increases for programmed projects would likely come from the RIP and compete for any funds that may become available.

Caltrans discontinued funding soundwall projects on existing highways when project selection for 75% of the State Transportation Improvement Program funds were shifted to the RTPAs. This shift provided the funding for the Shasta RIP which became effective January 1, 1998, with passage of Senate Bill 45.

Caltrans can fund a pavement noise abatement strategy in a rehabilitation project (see Open Graded Asphalt Concrete [OGAC] information below). However, the pavement in this area is in good shape and is not on our ten-year rehabilitation list. Unless there is some unexpected rapid deterioration of this Interstate segment, rehabilitation is at least ten years away. The Federal Highway Administration (FHWA) will not fund OGAC for noise abatement.

Cost-Effective Criteria and Solutions - As we stated in a previous letter to you, the Community Noise Abatement Program (HB 311), has three criteria that need to be met before funding of soundwalls is considered. The three criteria and the conditions within the study area are:

1. The noise level must exceed a threshold of 67 decibels (dBA) level equivalency for a one-hour period (Leq). All segments within the sound study meet this criterion.
2. Noise mitigation must be designed to reduce the noise level at least 5 dBA. Currently, there are two prevailing solutions for this area that will reduce the noise level at least 5dBA; soundwalls and OGAC pavement. Another solution, building earth-berms on the side of the Interstate to reflect sound skyward, probably cannot be done within the space available.
3. In order to be considered cost-effective, Project costs must not exceed \$35,000 per residential unit. Segment 2 does not qualify for funding as there are not any noise-sensitive receptors in the area. and Segment 1, at an estimated cost of \$1,070,000, does not qualify as cost-effective. Soundwalls would likely meet the criteria for Segments 3, 4, 5 and 6. The study cites an average cost of \$400 per lineal foot or \$2,100,000 per mile (one-side) for soundwalls. The OGAC option meets this criterion for five of the six segments. OGAC pavement would cost about \$1,000,000 total for all six segments within the study. This would include preparing the existing pavement and overlaying with OGAC, including part of the ramps.

The RTPA may elect to use their own criteria, however, the FHWA will not allow Federal funds to be used for a project that does not meet FHWA criteria.

OGAC Information – OGAC has gained some acceptance recently as a noise abatement solution. OGAC is a type of pavement surface that has gaps between the surface stones. The gaps tend to dissipate the noise made by tires contacting pavement, resulting in a significant reduction in noise to the areas adjacent to the highways. However, OGAC does not address other sources of noise such as engine noise and may not be an effective long-term solution. There has been speculation that as the pavement wears down and dirt becomes lodged in the spaces between the rocks, OGAC will not work for sound abatement. Caltrans is about three years into an OGAC study in the Sacramento area and so far it is still effective. However, again, OGAC does not address other sources of noise, may lose its effectiveness over time and has some long-term maintenance concerns.

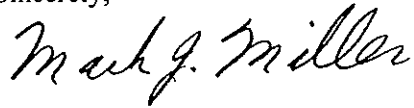
Ms. Diane Prettyman
January 31, 2002
Page Three

Caltrans wishes to keep our pavement options open for the future. If OGAC does become a feasible remedy, and a funding source can be identified, Caltrans will consider such a project.

For further information on how the RIP process is being implemented in Shasta County, please contact Mr. Daniel Kovacich, Executive Officer of the Shasta RTPA, 1855 Placer Street, Redding, CA 96001. His phone number is (530) 225-5155.

We are interested in meeting with people who have contacted us requesting soundwalls along I-5 in Redding. If you wish to meet with us or have any other comments or questions, please contact me at (530) 225-3094.

Sincerely,

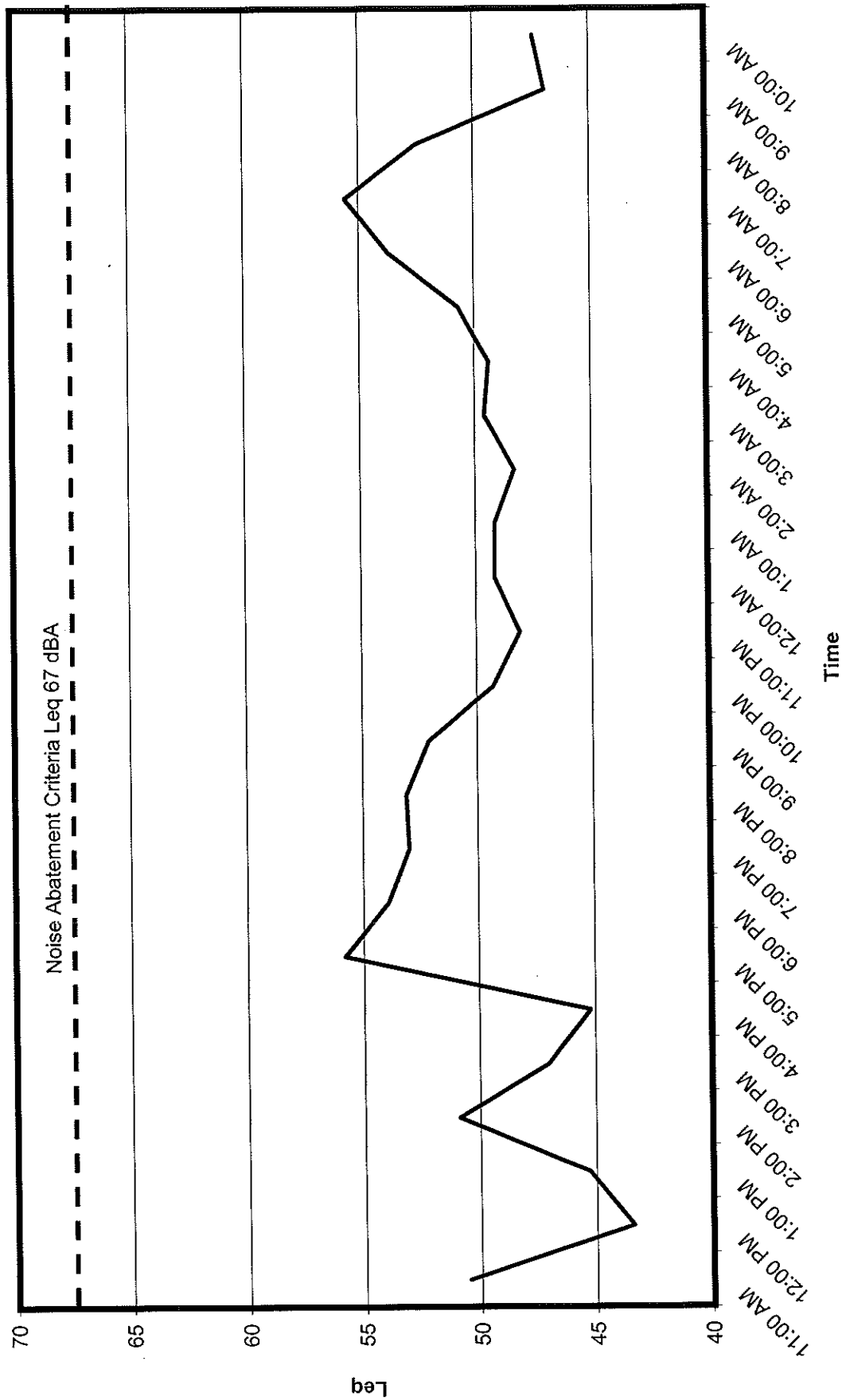
A handwritten signature in cursive script that reads "Mark J. Miller".

MARK J. MILLER
Chief, Advance Planning

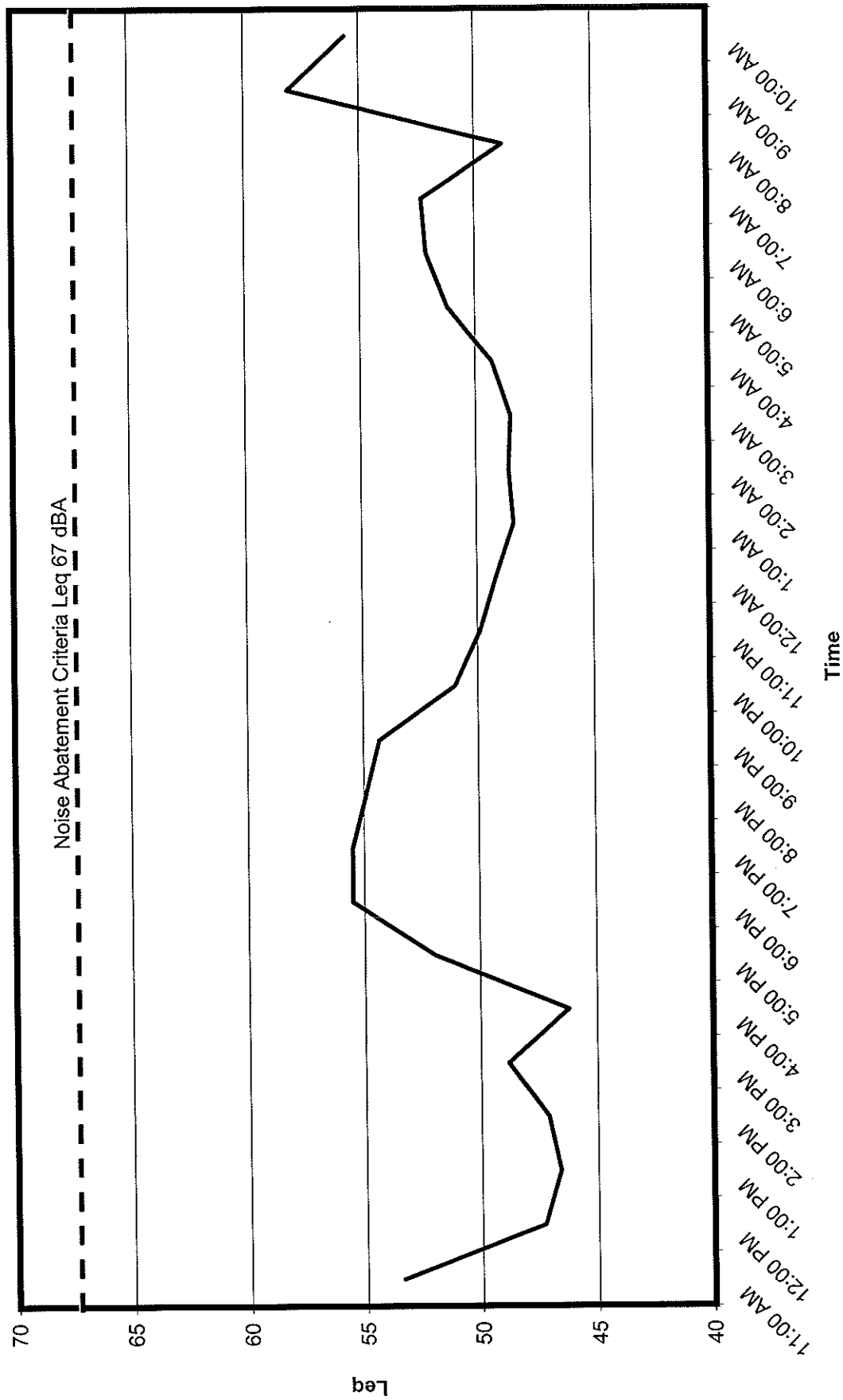
Attachments

C: Mr. Daniel Kovacich
Ms. Chris Begley

Jan 22/23, 2002



Jan 23,24 2002



Jan 24,25 2002

